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A ULITHIAN GRAMMAR

by

Ho-min Sohn

B.W. Bender

Department of Linguistics

Research School of Pacific Studies

THE AUSTRALIAN NATIONAL UNIVERSITY

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PREFACE

The present work is a slightly revised version of H.M. Sohn's University of Hawaii dissertation (1969) which was written under the direct supervision of and in close cooperation with B.W. Bender. In the writing of the original version, the phonology portion was constructed in large part along the lines of ideas provided by Bender, whereas the syntax portion generally followed those of Sohn. Since essentially nothing was known of the Ulithian language before Sohn's five months of field work on the island in 1968, a major aim of the work was to provide the reader with as much of an overall picture of the language as possible while using a generative-transformational model that was current in the mid-sixties. A wealth of example sentences are provided to assist the ambitious reader who wishes to reinterpret portions of the syntax along more recent models, as the authors themselves undoubtedly would if they were to start from the beginning again.

As a matter of fact, an enormous number of works have recently appeared which provide far more refined options within linguistic theory than those available at the time when this work was done. Fresh arguments are being made in phonology regarding such topics as abstractness in base form phonemicisation, rule ordering, and direction of rule operation. A number of proposals are being made in favour of generative semantics over generative syntax. If these recent theoretical developments were taken into account, this work would no doubt be refined and reorganised. For example, negation has been treated no higher than the level of a lexical category in view of its morphological characteristics. In the framework of generative semantics, negation would certainly be dealt with at a much higher level, which would show parallelism with the other languages of the world in terms of linguistic universality.

The authors' recent work on Woleaian, the language closest to Ulithian, has revealed that various hypotheses made in this book are

basically correct, in that similar hypotheses may be applicable to Woleaian also. For example, reconstruction of lost final vowels in Ulithian base forms is supported by devoiced reflexes of such vowels in corresponding Woleaian forms. On the other hand, certain hypotheses made with Ulithian evidence alone could be improved or modified if parallel Woleaian evidence were taken into account. For example, the final vowels in such Ulithian base forms as **lage** *'sky'*, **tale** *'rope'*, **cale** *'water'*, **fase** *'stone'*, and **mwale** *'man'* are not pronounced but are reconstructed in view of their respective construct forms: **lagel** *'sky of'*, **talel** *'rope of'*, **calel** *'water of'*, **fasel** *'stone of'*, and **mwalel** *'man of'*, while such particles as **cox** *'just'* and **gaag** *'I'* are not provided with a final vowel because they do not have a construct form on which the final vowel may be set up. If corresponding Woleaian voiceless final vowels were taken into consideration, the above Ulithian base forms would be modified as **lagi**, **tali**, **calu**, **fasu**, **mwale**, **caxu**, and **gaagu**, together with a rule that lowers **i** and **u** to **e**. In fact, the authors have already postulated such a rule (*PR19*) to handle a minor related case. With the modified base forms as given above, *PR19* would acquire greater generality, while many rules which were motivated by the existing set of base forms could be collapsed into a few general rules. For example, *PR*s *24*, *25*, *28*, *29*, and *31* could be combined into one rule of assimilatory vowel raising (**a**-raising between high vowels) if we revise the Ulithian base forms taking Woleaian evidence into account.

Finally, the authors have noticed several places where Ulithian data themselves are not satisfactorily dealt with, due probably to incomplete elicitation or lack of deeper analytical insights on the part of the authors. For example, inclusion of capital letters in base forms to block compensatory lengthening will have to be re-examined, since a brief recent check has revealed that blocking of the lengthening might have been caused by inconsistent elicitation, hence a case of possible overdifferentiation.

In spite of the abovementioned unsatisfactory areas which call for further study, the authors would consider it sufficient reward if this work were of any small help to the reader.

Honolulu, Hawaii
December 1973

H.M. Sohn
B.W. Bender

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ABBREVIATIONS

1. Abbreviations

Adj	adjective
Ani	animate
At, at	attributive marker
ATT	attributive phrase
Aux	auxiliary
BR	base rule
C	consonant
Cl	possessive classifier
Cmp	complementiser
COM	complement
con	connector
Cs	construct suffix
Dad	directional adverbial
DIR	directional
Dm, dm	demonstrative enclitic
Dr, dr	directional particle
E	example in syntax
(E)	example in phonology
Emp	emphasis
excl	exclusive
F	feature
fm	focus marker
hb	habituative ma
HR	hearer
Iden	Identification
Imp	imperative
incl	inclusive
Int	intensifier

Mn	nominal manner particle
Mv	verbal manner particle
N	noun
ng	negative TA particle
Nm	noun phrase (low level)
NM	noun phrase (mid level)
NP	noun phrase (high level)
NUC	numerative construction
Nucl	numerative classifier
NuCm	numerative compound
Num	numerative multiple
Nus	numerative stem
OB	obligatory
OP	optional
Ord	ordinaliser
Os	object suffix
Pm, pm	predication marker
PP	predicate phrase
PR	phonological rule
Pred	Predication
PrepP	prepositional phrase
Pro	pronoun
Prog	progressive
Prp	preposition proper
PrV	verbal prepositional construction
Q	question
Qnt	quantifier
Rpt	repeatative
RR	syntactic redundancy rule
S	sentence
SA	sentence adverbial
SC	structural change
SD	structural description
SF	syntactic features
SG	singular
SP	speaker
TA, ta	tense-aspect particle
TG	transformational grammar
tr	causative transitiviser
TR	transformational rule
V	verb, vowel, or archivowel
Vp	verb proper
Vb	verb phrase (low level)

VB	verb phrase (mid level)
VP	verb phrase (high level)
Vpr	verbal preposition
Vprs	verbal prepositional stem

II. Symbols

p	(base form) phoneme p
/p/	"taxonomic" phoneme p
[p]	phone p
·	mora
-	boundness, when preceded by a morpheme
Ø	zero
//	(1) phonological juncture; (2) a position from which a deep form is deleted on the surface (in syntax)
/X/	deep structure postulation of a word or phrase X which does not appear on the surface
==>	derived to
<==	derived from
$\binom{X}{Y}$	X and Y are disjunctive and both are optional
/_	in the environment of
(X)__(Y)	X and/or Y must occur
(X__Y)	optional application of a rule to this environment
~p, $\tilde{p}$	if not p
[F]	phonological feature
<F>	inherent or structural feature (< > will be omitted if the feature appears in Lexicon)
[X__Y]	contextual feature
$\begin{bmatrix} xF \\ yF \\ \cdot\cdot \end{bmatrix}$	feature matrix in phonology and syntax
Z	unless otherwise indicated, any sound, sound sequence, or zero
<	fronting

x̂	retracting
x̂	raising
x̌	lowering
x̬	voiced x
d̥	devoiced d
p̳	tensed p
p'	aspirated p

III. Conventions

1. When all the constituents appearing on the right of a BR are optional, at least one of the constituents must be chosen in each derivation.

2. Base forms are written in special ("Artisan") symbols in discussing both phonology (Chapter III) and syntax (Chapters IV and V). Phonological rules are developed in principle on the basis of "Artisan"-type symbols plus various diacritic marks. Phonetic transcriptions and feature terms are introduced only occasionally in the processes of rule operation.

3. Glosses given to base forms represent only rough meanings. In 3rd per. sg. pronominals, which involve *'he, she, it'*, only one of these glosses is given to represent the whole.

4. In base form spellings, the final vowel in some recent borrowings and proper nouns is frequently omitted (e.g. Ben *'person's name'* instead of Bene) but this omitted vowel is recoverable by $\emptyset$ ==> V_1 / V_1C__# (e.g. Ben ==> Bene).

5. Unless indicated otherwise, all the examples in spellings in Chapter IV are base form representations of *surface structures*.

6. Lexicon under each set of BRs is filled in principle with those closed sets of lexical items, the dominating categories of which are the lexical categories appearing in that set of BRs.

7. In phonology, various cover symbols (capital letters such as C, V, S, B, etc.) are used in shorthand fashion to simplify the statement of certain rules. Those other than the conventional C and V are defined in the accompanying discussion of the rules, and

may be considered putative natural classes of phonemes. (For some it is possible to give the definition in terms of the features assigned in Chapter III (3.3.); for others this is not possible, probably indicating that the features assigned can bear further investigation and revision.) Some of these cover symbols appear on both sides of rules, others in the environments. Several lower case symbols identical to those used for base phonemes also appear on the left side of certain rules and should be considered natural classes of one phoneme only, including all allophonic varieties of the phoneme developed in earlier rules which added diacritics (ˊ ˆ). For example, a in a rule like a ==> X includes both a [ɑ] and a [a] (but not å [æ] which is a separate phoneme). Note that such diacritics as ˊ and ˆ indicate non-distinctive and non-binary phonetic degrees in the framework of this study (cf. Halle 1964:333).

8. Unexplained symbols have traditional meaning.

9. Both [g] and [ɡ] represent the same voiced velar fricative sound.

CHAPTER I

INTRODUCTION

1.1. GENERAL BACKGROUND

Ulithian is a nuclear Micronesian language spoken by 590 individuals on Ulithi Atoll, 217 on Fais, 15 on Sorol, and by the 50 on Ngulu who are bilingual with Yapese.[1] These islands are situated in the northwestern portion of the Yap Administrative District of the Trust Territory of the Pacific Islands (FIGURE 1). Ulithi Atoll (with coordinates of 10°05'N and 139°43'E for its islet of Mogmog island) consists of 32 islets among which only five are at present inhabited (FIGURE 2): Asor 68, Falalop 210, Fassarai 115, Lodow 24, and Mogmog 173.

The successive occupations and control of the atoll and other neighbouring islands by foreign countries (Spain, 19th century; Germany, 1899-1914; Japan 1914-1945; the United States, since 1945) have all contributed to the Ulithian lexicon.[2] Of these, the German influence has probably been the least. These borrowings have been integrated into the Ulithian phonological system except for some recent direct borrowings from English.

In his work on a lexicostatistical classification of 245 (214 by a count in Grace n.d.:11) Austronesian languages, Dyen (1965) did not include any list from Ulithi, though he included those from neighbouring Woleai, Satawal, and Puluwat. The latter three he regarded as dialects of the Wolean language by virtue of Puluwat-Satawal 83.3% and Satawal-

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[1] Ulithian here is equivalent to the Ulithi dialect of B.W. Bender's Ulithian which, along with Ulithi, involves two other dialects, Sonsorol and Woleai (Bender 1968:20). For the term "nuclear", see Bender 1968 (4 *et seq.*).

[2] For further details on foreign visits, see Lessa 1966 (5-8).

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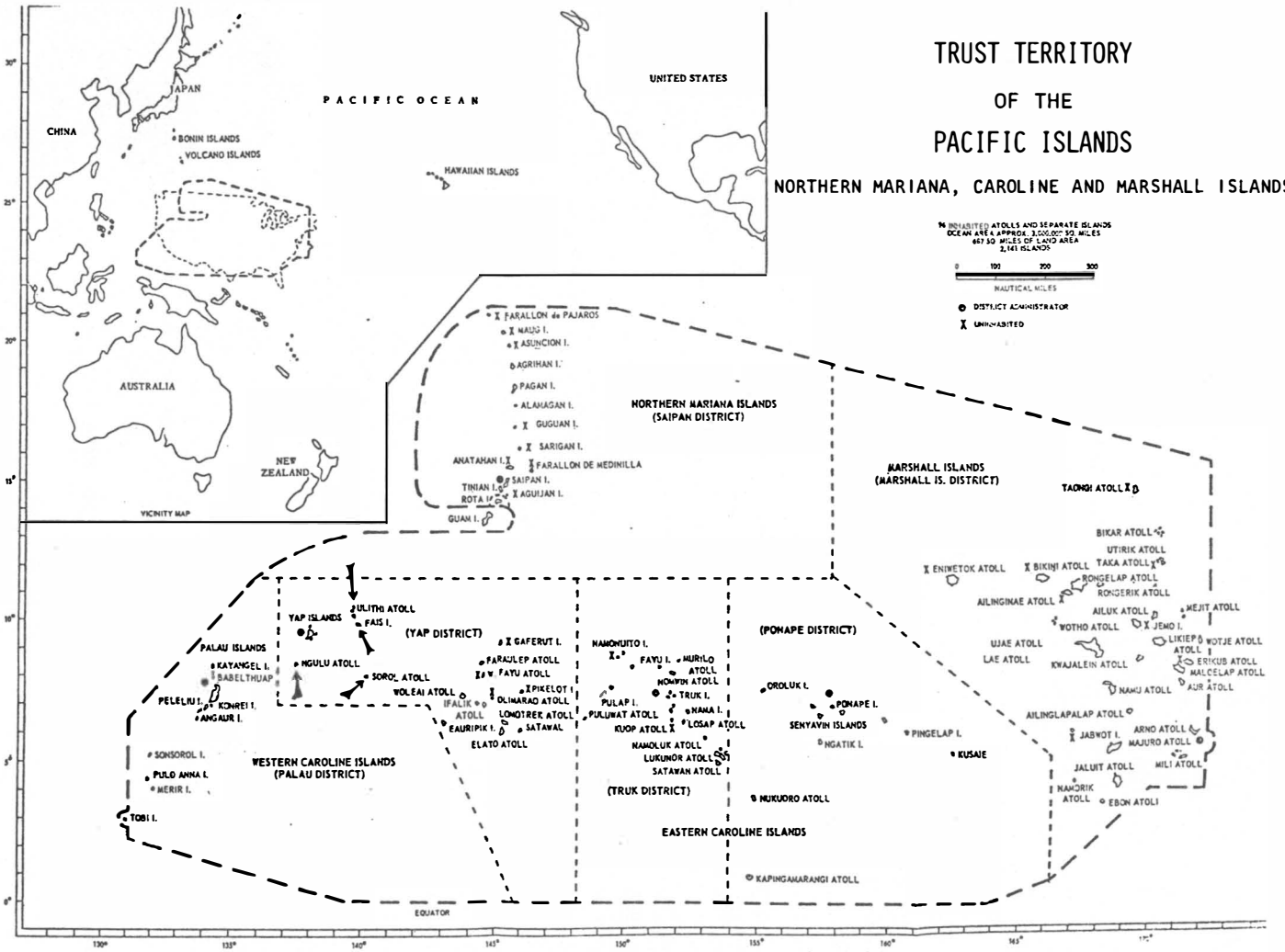


NOTE: Broken lines indicate territorial area and districts of jurisdiction and are not to be interpreted as boundaries.

FIGURE 1

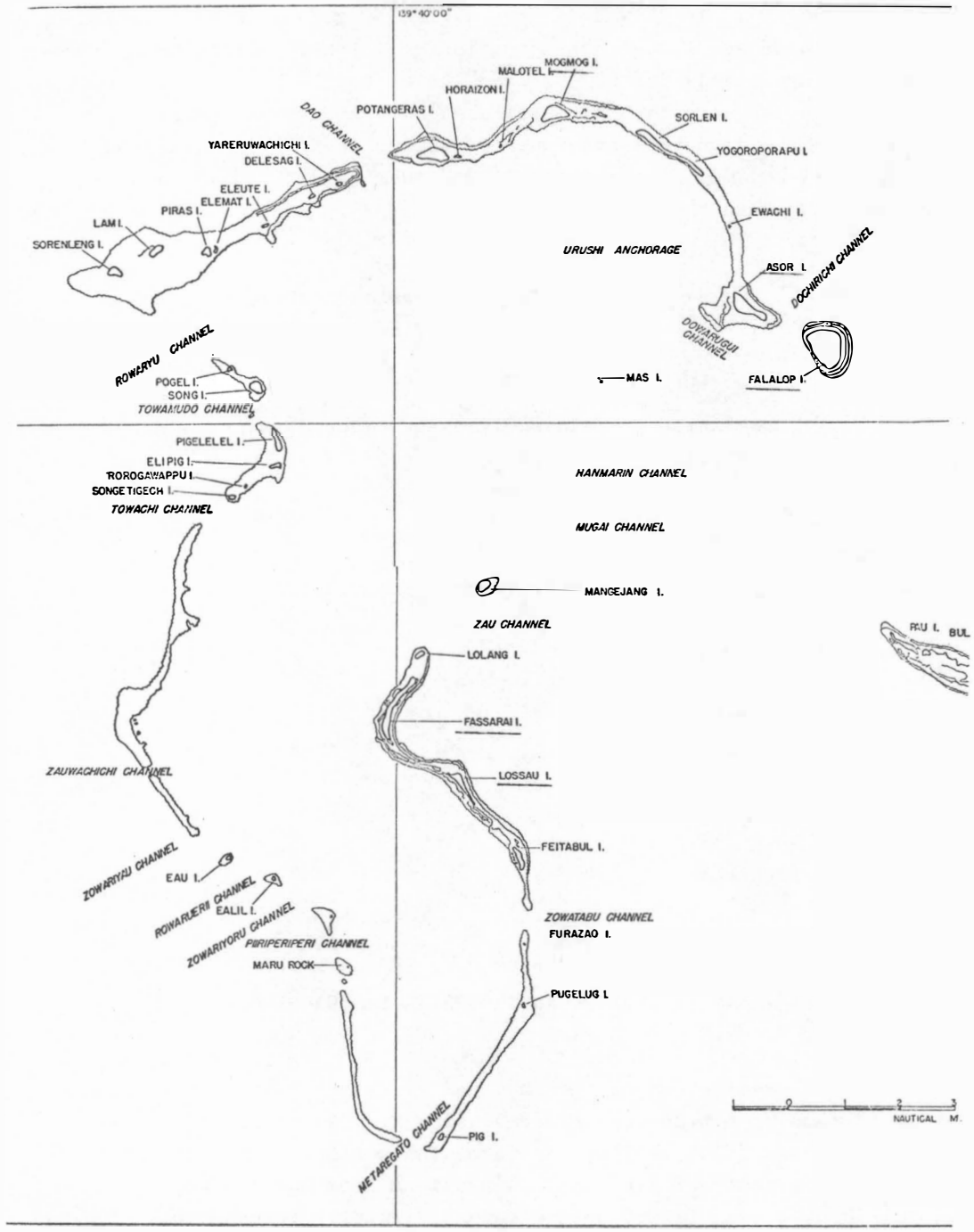


FIGURE 2

MAP OF ULITHI ATOLL

Woleai 79.7% (35). In view of a high degree of mutual intelligibility between Ulithian and Woleai, the position of Ulithian within the Austronesian language family may be observed indirectly in Dyen's treatment of the Wolean language in his classification. A partial family tree derived from the cognate percentages on the basis of Dyen's subgrouping procedure (19-20) may be something like FIGURE 3, with omission of branches other than those related to Wolean (33).

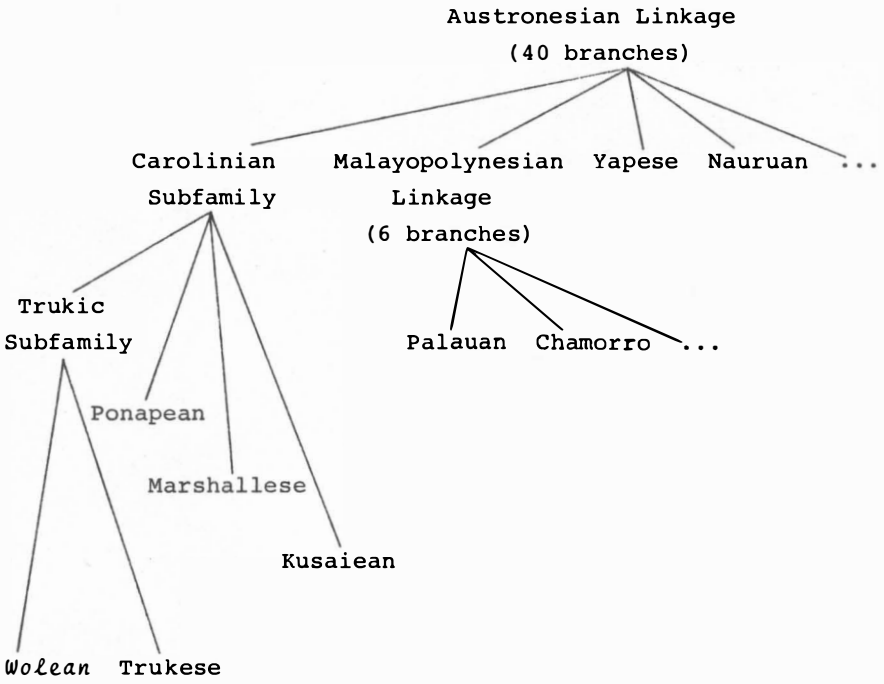


FIGURE 3

FAMILY TREE OF AUSTRONESIAN LANGUAGES

A detailed examination of the internal relations of the Trukic subfamily is made by B.W. Bender (1968a) using E.M. Quackenbush's 580-word list. He mentions (14): "There are some indications that it is possible to establish a chain of dialectal connections from one end to the other with all contiguous dialects being mutually intelligible and having basic cognate percentages near or above 70%, but it is clear that neither of these criteria are satisfied for the extremes of the chain." Bender shows evidence of the difficulty of segmenting the Trukic subfamily into

discrete languages, by considering the quantities and distributions of exclusively shared cognate sets within the subfamily and by conducting a lexicostatistical count of 176 items for Sonsorol, Ulithian, Woleai, Satawal, Puluwat, and Moen (19).

Ulithian itself has slight dialectal differences which are mainly phonological (mostly vowels), rarely lexical, and never grammatical. A comparison of some 200 items in the pronunciation of the inhabitants from the five inhabited islands of Ulithi Atoll and from Fais reveals that three geographically-based dialectal groupings can be recognised:

(1) Falalop and Asor;
(2) Fais;
(3) Mogmog, Fassarai, and Lodow.

No simple generalisation can be made on the sound correspondences among the three dialects. It can be said, however, that the Falalop dialect tends to have higher vowels than the Fais dialect which in turn tends to have higher vowels than the Mogmog dialect. Observe the vowel differences in the following (broad phonetic transcription):

Falalop dialect	*Fais dialect*	*Mogmog dialect*	
[riyep]	[reyep]	[reyap]	*'Yapese'*
[tagiyet]	[tagiyat]	[tagiyat]	*'high'*
[firigil]	[firigil]	[feregel]	*'braiding of'*
[leŋæcel]	[leŋacel]	[laŋacel]	*'beside'*
[yigil]	[yagil]	[yagel]	*'for'*
[xumʷuc]	[xumʷoc]	[xumʷoc]	*'hand'*
[mʷomʷ:ut]	[mʷomʷ:ut]	[mʷomʷ:ot]	*'to vomit'*
[k:il]	[k:il]	[k:el]	*'to dig'*
[tef:oy]	[tef:oy]	[taf:oy]	*'new'*
[litə:vic]	[litɔ:vic]	[litɔ:vic]	*'pocket knife'*
[ɓʷugɓʷux]	[ɓʷugɓʷux]	[ɓʷogɓʷox]	*'knotty'*
[yewu]	[yɔ:w]	[yɔwu]	*'dirt'*
[laɓʷuθ]	[laɓʷuθ]	[laɓʷoθ]	*'moray eel'*

[u] : [o] correspondences are noted only in short forms after a velarised consonant (i.e. [ɓʷ] and [mʷ]). Another phonological difference is noticeable in the sporadic alternation between [y] and [w] before [u] among the three dialects.

Falalop	*Fais*	*Mogmog*	*examples*			
y	y	y	[yu:l]	[yu:l]	[yu:l]	*'body hair'*
w	w	w	[wu:ŋ]	[wu:ŋ]	[wu:ŋ]	*'ridgepole'*
y	w	y	[yuru:r]	[wuru:r]	[yuru:r]	*'to pull'*

Falalop	*Fais*	*Mogmog*	*examples*
w	w	y	[wu:c] [wu:c] [yu:c] *'banana'*
w	y	y	[wu:θ] [yu:θ] [yu:θ] *'rain'*

Out of 70 sets of words which show different correspondences, the following facts are observable:

Falalop = Fais ≠ Mogmog	20
Falalop ≠ Fais = Mogmog	19
Fais = Falalop ≠ Mogmog	22
Falalop ≠ Fais ≠ Mogmog	9

out of which

lexical difference	2	(in Fais as against the others)
consonant difference	4	
vowel and semi-vowel	64.	

1.2. PREVIOUS WORK ON THE LANGUAGE

Ulithian is one of the least investigated languages in Micronesia. Elbert (1947) and Quackenbush (1966) are the only known works to date. The former is a word list containing some 900 words plus remarks on phonetic comparison between Ulithian, Trukese, Marshallese, and Samoan as well as notes on the grammar. He points out the correspondence of Ulithian /x/ to Trukese /k/, /l/ to /n/, /d/ to /t/, /t/ to /s/, /s/ to ø, and final /x/ to ø. The latter is a pedagogical work written for Peace Corps training purposes. It includes various dialogues and notes on the grammar.

1.3. FIELD WORK

This work on Ulithian was begun in August of 1967 in Honolulu with the help of two speakers from Mogmog, Ulithi.[3] In early September of that year, however, one of them moved to the island of Maui, and at the end of the same month the other moved to Saipan. With this unfortunate situation, informant work was done by making trips to Maui and taking advantage of the casual visits of the Maui informant (M. Marpa) to Honolulu. Much effort without corresponding efficiency made Sohn decide to journey to Ulithi, where informants would be in ready supply. To learn the language and a bit of the culture and to collect an assortment of texts were additional goals of the field trip. On May 10, 1968, Sohn left

[3] Throughout the informant work, Dyen 1965 and Elbert 1968 have been of great use for elicitation and comparison.

Honolulu.

After a stay of one week on Yap, Sohn proceeded to Ulithi on May 16 by ship. On arriving at Falalop, Ulithi, where Sohn was to spend most of the next five months, he chose a man named Roberto Dargos (age: 52) as his principal informant, whose untiring and enthusiastic assistance included the provision of not only language information but also coconuts, breadfruit, and fish. Dargos was a good speaker of Japanese with some knowledge of English. Since he had finished a five-year course in a public school on Yap under the Japanese regime, he also had a good command of Yapese. No language problem was involved, since he and Sohn had excellent communication by means of Japanese. Women and children, who were mostly monolingual, were good helpers in Sohn's practicing of Ulithian. In general, younger informants had less conviction about their language, thus vascilated in their judgments as to what was grammatical and the authority rested with the aged in case any significant judgment was needed. Texts were collected from stories narrated by Guwar (Falalop), Chief Tagac (Mogmog), and Dargos. Some daily conversations were also recorded. These materials, which were transcribed (some 14,000 Ulithian words) and translated, and the data elicited from the informants were the bases for this analysis.

On the 8th of October, Sohn returned to Honolulu. Final checking of this dissertation has been conducted in Honolulu with the help provided by Laphael Ling, an East-West Center grantee from Falalop, Ulithi. The total informant work for this study is summarised as follows:

TABLE I

SUMMARY OF INFORMANT WORK

Name of informant	*Sex*	*Number of hours*	*Language used*	*Place*	*Duration*
Moses Marpa	M	70	English	Honolulu	Aug. 67-
		35	English	Maui	Apr. 68
Lourdes Yitwecox	F	30	English	Honolulu	Sep. 67
Roberto Dargos		410	Japanese	Ulithi	May-Oct. 68
Laphael Ling and Others	M M,F	40	Ulithian, English and Japanese	Ulithi, Yap and Honolulu	May 68- Feb. 69
Total Hours:		585			

1.4. SCOPE OF STUDY

This dissertation analyses the phonological and syntactic structures of Ulithian on the basis of the Falalop and Mogmog dialects. Since the dialectal differences are irrelevant to the syntax and the phoneme inventory, this analysis is applicable to all dialects, with perhaps slight modification of some lexical forms.

No historical or comparative study has been made. Some comparative evidence has been used in phonemic interpretation and the establishment of base forms to the extent that it contributed to the descriptive analysis.

Lexicon is dealt with insofar as it is relevant to the comprehensive syntactic description. No attempt has been made to collect the complete vocabulary of the language.

Nothing is mentioned of the semantic component in the sense of Chomsky 1965, in which many of the features of the semantic component as outlined by Katz and Fodor (1963) and Katz and Postal (1964) are relegated to the syntactic component.

The model employed is discussed in CHAPTER II, where the methodological framework of this study is specifically presented covering the phonological and syntactic components. Some major decisions and proposals which have been made concerning the description of Ulithian are also summarised in this chapter. The phonological component is explored in CHAPTER III, which concerns the setting-up of phonemes in terms of contrasts in base forms and the morphophonemic changes involved in various syntagmatic relations. An extensive investigation of the underlying structures of the syntax is presented in CHAPTER IV, which consists of 23 base rules and the accompanying discussions, a lexicon, and a set of redundancy rules. Transformational rules of the syntax are given in CHAPTER V.

Throughout this study, an effort has been made to provide as varied examples as possible in order to support various assumptions made.

1.5. ACKNOWLEDGEMENTS

First of all, gratitude goes to the East-West Center for providing Sohn with a 48-month grant for him to complete his Ph.D. in linguistics at the University of Hawaii.

Particular thanks are extended to several expert speakers of Ulithian for their excellent assistance and cooperation in this task. Above all, Roberto Dargos's willing help made possible the attainment of the desired goals of this study within a relatively short period of time.

Also, special thanks are expressed to Mr Gregory Trifonovich of the East-West Center who very generously helped Sohn make arrangements for

his trip to Ulithi, and to Mr and Mrs Tom Burback, Mr and Mrs W. Richard, Mr and Mrs K. Goves, Mrs Stahl, Chief Hathey and Captain W. Potznansky for the kind and generous cooperation and the friendship they extended to Sohn during his travel to Ulithi and his stay there.

We are greatly indebted to Professors S.H. Elbert, G.W. Grace, H.P. McKaughan and M.P. Lester who read an earlier version of this work and gave many valuable comments.

Last but not least, we appreciate the kindness of Professor S.A. Wurm of the Australian National University who arranged for this publication and of Mrs S. Sinisoff who has painstakingly completed the typing.

CHAPTER II

METHODOLOGY

2.1. GENERAL

This phonological and syntactic description of Ulithian is based on the descriptive model provided by the recent development of the transformational generative theory. Attention has been paid, however, more to the structure of the language at hand than to the current linguistic theories associated with the model. The model is not the primary aim for investigation but rather the means to the end. Some modifications have been proposed to the model of wide currency (e.g. Chomsky 1965) so far as such contributed to the self-consistency, exhaustiveness, and simplicity in the description of Ulithian.

The present study presupposes the usual three-way subdivision of a grammar, i.e. phonological, semantic, and syntactic, in such a way that the first two are interpretive and the third is central and "creative". Only the phonological and syntactic components are the concerns of the present investigation.

2.2. PHONOLOGICAL COMPONENT

The phonological component consists of two interrelated parts, a phoneme inventory and a set of phonological rules.

2.2.1. In the phoneme inventory, the phonemes are specified and distinctive features assigned to them. Phonemicisation has been conducted on the basis of contrasts not of surface forms but of underlying base forms. Base forms are decided on in the light of the general phonological characteristics observable in various morphophonemic changes in the surface forms of Ulithian. Such phonological characteristics are mostly

synchronic, but occasionally some diachronic evidence has been taken into account where indeterminacy arises.

The base form phonemicisation has been influenced by Bender's systematic phonemicisation of Marshallese (1968b), although the present study is not as rigorous as the latter in its procedure and coverage. There is some indication that the Ulithian vowels could be reduced in number to a significant extent if a more extensive and rigorous investigation were made. As Bender points out, some of the traditional principles of so-called taxonomic phonemics (see Chomsky 1964:75 *et seq.*) such as biuniqueness and invariance are disregarded in the base form phonemicisation. On the other hand, concepts like contrast and complementary distribution are relevant only on the level of underlying base forms. There are several definite advantages in the approach in which phonemicisation is conducted with base form contrasts. For example, various asymmetrical and limited phonetic contrasts can now be accounted for in terms of environmental conditioning; the alternation of stem final vowels may be explained by general phonetic rules; and a maximum uniformity may be attained in base forms with least syntactic irrelevance, because one lexical item corresponds mostly to one and only one phonemic shape. For detailed discussion on this subject, see 3.3. and 3.4.

No intermediate level is allowed between the base form phonemicisation and the phonetic representation, because such a level would introduce a number of additional phonemes which would be distributionally unique on both the syntagmatic and paradigmatic planes. This decision is influenced by the argument (e.g. Chomsky and Miller 1963:309; Chomsky 1964: 68 *et seq.*) that within the generative framework there are no strong and clearly justifiable motivations for establishing an intermediate level of "taxonomic phonemes". Thus the relation is between base phonemes and surface phones bridged by a series of phonological rules.

2.2.2. The set of phonological rules (PRs) consists of two kinds: (1) rules of redundant (3.3.1.) and non-distinctive (3.3.2.) features, and (2) morphophonemic rules. It is assumed that the morphophonemic rules are ordered and apply to a surface structure consisting of lexical and grammatical formatives with accompanying features, boundaries, and the constituent structure marked. In this study, morphophonemic rules are grouped into two subsets in the order of (1) feature realisation rules, and (2) phonetic rules. Morpheme structure rules are not developed.

Feature realisation rules give the phonological shape of certain formatives associated with a set of features, such as predication markers (Pm), attributive markers (At), object suffixes (Os). The output

phonological shapes are base forms, which are further subject to phonetic rules along with other lexical and grammatical base forms.

Phonetic rules affect modifications of the phonological structures of base forms, so that they may be realised eventually as surface forms, i.e. phonetic shapes of utterances. Phonetic rules apply in a cycle, first to the formatives, then to the constructions of which they are constituents, and so on, until the domain of phonological processes is exhausted. Phonetic rules are further subdivided into two types according to whether the modifications are morphologically or phonologically conditioned. Phonetic rules are developed in terms of phonemic and phonetic symbols, and only occasionally feature terms are employed, in particular when natural classes are formed.

2.3. SYNTACTIC COMPONENT

The syntactic component is divided into two parts, a base and a transformational subcomponent. The former is treated in CHAPTER IV and the latter in CHAPTER V. The base subcomponent characterises highly abstract and restricted elementary structures (deep structures) from which actual sentences (surface structures) are derived by transformational rules provided by the transformational subcomponent. As widely assumed, a deep structure is relevant for semantic interpretation and a surface structure for phonetic interpretation.

2.3.1. The base is subdivided into constituent structure, redundancy rules, and lexicon. The first consists of context-free branching rules, whose primary role is to define the system of basic grammatical relations and to determine the deep structure orderings underlying all Ulithian sentences. Following Chomsky (1965:122), all the lexical categories generated by the rules of the constituent structure are, by convention, to be mapped onto the dummy symbol Δ which serves to mark various unspecified elements as well as the positions in a string where lexical formatives will be inserted and to insure unique recoverability of underlying P-markers when substitution or deletion is effected. In the present study, no subcategorisation rules, either context-sensitive (strict subcategorial or selectional) or context-free, are introduced in the system of rewriting rules of the constituent structure, since such an attempt would complicate the base significantly without any resulting practical advantage. Context-sensitive subcategorisation rules become redundant as soon as the contextual features of a lexical entry are viewed as constituting the structural index for a substitution transformation (i.e. for lexical insertion), as in the case of Chomsky's

alternative suggestion to his major proposal (1965:120-1). Context-free subcategorisation rules will simply be regarded as syntactic redundancy rules as in Chomsky's alternative. As intensive investigation has not been conducted regarding the contextual features covering all the words in my data, though an attempt has been made to classify nouns and verbs in terms of certain limited contextual features (see 4.7., 4.8., and 4.12.). Thus the lexicon must be considered only as illustrative insofar as contextual features are concerned.

The redundancy rules deal with various syntactially redundant elements. Only those rules relevant to the scope of this study are given. The lexicon contains an unordered set of lexical entries. It is viewed as a repository of the basic irregularities of the language. It is assumed, following Chomsky (1965:86), that each lexical entry is made up of those phonological, semantic, and syntactic features which cannot be predictable by general rule, plus information that determines the proper placement of lexical entries in sentences. However, the present study has not made a systematic arrangement of the lexical entries along this line, except that it has given all of the closed sets of formatives thus far found and a number of illustrative words in open sets. As indicated above, the actual substitution of a lexical formative for a dummy symbol is assumed to be accomplished by a kind of conventionalised substitution transformation for which the contextual features of a lexical entry constitute the structural index.

2.3.2. The transformational subcomponent consists of a set of transformational rules of two types, i.e. agreement (feature copying) rules and a sequence of singulary elementary transformational rules covering substitutions, deletions, permutations, and adjunctions.

One basic assumption underlying the transformational rules is that transformations do not affect meaning, which is a generalisation proposed by Katz and Postal (1964). This assumption implies the truth of the principle that only the deep structure is relevant for semantic interpretation. Katz and Postal point out that such a generalisation greatly simplifies the semantic component because semantic interpretation will be independent of transformational processes. Thus, for example, introduction of TR-triggering elements such as Imp and Q in the base of this grammar is motivated by the above assumption. One exception to the principle that only the deep structure is relevant for semantic interpretation is related to the multiple focus transformation (see 4.11.3.).

The present study has adopted Chomsky's proposal concerning "generalised P-marker" (1965:134). This proposal allows #S# (boundary symbols are understood in the base of this grammar) to appear on the right in

certain branching rules of the base. The advantage of this approach is indicated by Chomsky (134): "A generalized Phrase-marker formed in this way contains all of the base Phrase-markers that constitute the basis of a sentence, but it contains more information than a basis in the old sense since it also indicates explicitly how these base Phrase-markers are embedded in one another". A sequence of singulary transformations apply to generalised P-markers cyclically "from the bottom up" (143). By this procedure, some ordering problems as well as problematic binary transformations may be eliminated.

As a result of accepting the above procedure concerning generalised P-markers, the recursive property becomes a feature of the base subcomponent. The recursiveness in the base, however, leads to a disadvantage in that it allows the generation of an infinite number of generalised P-markers which underlie no surface structure. Therefore, a function of the transformational subcomponent has become the blocking out of such structures. In other words, "the transformational rules act as a 'filter' that permits only certain generalized Phrase-markers to qualify as deep structures." (Chomsky 1965:139).

2.4. DECISIONS AND PROPOSALS

In the course of the syntactic descriptions, a number of decisions and proposals have been made with regard to the formulation of base and transformational rules. Many of them are the results of the peculiarities of Ulithian, but some of them may be relevant to general linguistic theory. Following is a summary of the most representative ones:

(1) By formulating sentence compounding, conjunction reduction transformations may extensively be applied (see 4.2. and *TRs 3, 6-8*).

(2) As modality constituents, **Q**, **Imp**, and **Emp** are set up. No motivation is found to set up **Neg** (see 4.3.3.; 4.4.6.; 4.11.).

(3) Although pronouns normally do not appear on the surface except in sentence-initial position when focussed, they have been postulated as underlying **NP** throughout. This treatment not only gives an answer to some otherwise puzzling questions but also contributes to a symmetrical description of the language (see 4.4.2.).

(4) Predication markers (**Pm**), attributive markers (**At**), and object suffixes (**Os**) have many characteristics in common, both syntactic and morphological as well as in feature composites. Thus they have been treated within a single framework in relation to the **NP** concerned (see 3.6.2. (*PR 14*); 4.4.2.; 4.4.5.; 4.8.6.; 4.12.2. and *TRs 1, 2*, etc.).

(5) Differing from the general practice, prepositional phrases of

different types are regarded as constituting a kind of hyperclass. This approach simplifies the base in addition to the advantage of eliminating problems which might arise in case of lining up the same categories representing different prepositional phrases in the base (see 4.7.2.). Thus a sequence of prepositional phrases on the surface are considered in the same way as a sequence of noun phrases, a sequence of predicate phrases, a sequence of verbal manner particles, etc., most of which are treated by means of conjunction reduction transformations.

(6) The direct and indirect object NPs are hierarchically arranged in base rules, which is different from the usual practice ordering the two sequentially in a single rule (see 4.6.2.).

(7) No distinction has been made in base rules between a relative-type and a conjunctive-type sentence (see 4.9.).

(8) The relation existing between a classifier (possessive or numerative) and items classified is regarded as appositive, resulting from a nominalisation of the corresponding Identification sentence (see 4.5.).

(9) Recursiveness is a property of the base subcomponent. The base rules comprise several elements for recursive possibility, i.e. sentence conjunction, complementation, noun phrase conjunction, attributive phrase, etc. (see BRs *1*, *9*, *15*, *18*, and *19*).

(10) Various types of emphasis constructions are systematised under the focus transformation (see 4.11.3. and *TR 11*).

(11) Different kinds of adjectival constructions are treated in a single framework, i.e. by means of adjectivisation. This contributes to a great simplification of the base (see 4.10. and *TRs 38-40*).

(12) Deletion of a noun or noun phrase is effected not directly but by way of pronominalisation, i.e. first it is replaced by anaphoric **yiiage** (when dominated by PrepP) or by an anaphoric pronoun (elsewhere), and then the anaphoric element is deleted obligatorily in some cases and optionally in others. This proposal not only handles optional and obligatory deletion of nominal and pronominal elements with much generality but also solves a problem associated with the alternation between two attributive suffixes **li** and **la** (see 4.8.6.2. and *TRs 13, 21-23*).

(13) Concerning the contextual features of lexical items, Chomsky's principle of "strictly local subcategorization" (1965:105 and *passim*) has not been followed. An attempt to follow the principle would require a total rearrangement of the base rules in such a way that all the categories relevant to the subcategorisation of a lexical category (e.g.

V, N) must be placed in a single rule. This rearrangement, however, would blur the hierarchical structure of categories, since, for example, there would have to be a rule which somewhat covers BRs *4*, *6*, *8*, *9*, *10*, and *11* to allow a frame in which V appears. Therefore, contextual features will be assigned to lexical entries by way of a convention rather than accepting the concept of "strictly local". Thus, for example, **galle-** *'to give'* may simply be assigned a contextual feature [+_NP NP] with the understanding that it may occur with an indirect and a direct object NP, although V is not juxtaposed with either of them in a base rule.

(14) With regard to the notion of the grammatical functions such as subject, direct or indirect object, etc., it is assumed that functional notions are directly represented in the system of base structures and no separate formulation is necessary in the descriptive framework followed in this study (cf. Chomsky 1965:72-4, 117).

CHAPTER III

PHONOLOGY

3.1. PHONEME INVENTORY

There are seventeen consonant, eight vowel and eight suprasegmental phonemes. On the articulatory basis, these are arranged as in TABLE II.

TABLE II

ULITHIAN PHONEMES

CONSONANTS

	bilab pin vel	lab-dent	int-dent	alveolar apic	alveolar lam	alveo-palat	velar	back velar
stop	p				t	c	k	
fric		ɓʷ	f	ɗ		s		x
nasal	m	mʷ			n		ŋ	
lat					l			
trill					r			
glides		w				y		

VOWELS

	front unrounded	front rounded	back unrounded	back rounded
high	i			u
mid	e	ə		o
low	æ		a	ɔ

SUPRASEGMENTAL

plus juncture	+
clause terminals	↗ , ↘ , →
pitch levels	1, 2, 3, 4

3.2. ORTHOGRAPHY

The orthographic symbols proposed and used in this study are given in TABLE III.

TABLE III

PROPOSED ORTHOGRAPHIC SYSTEM

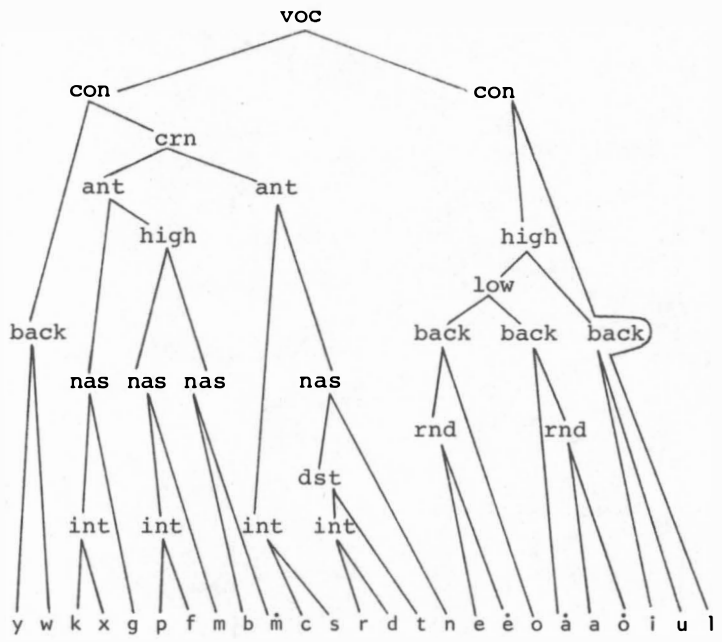
*SYMBOLS**	*PHONEMES*	*SYMBOLS*	*PHONEMES*
p	p	i	i
t	t	e	e
c	c	ȧ	æ
k	k	a	a
b	b^w	ȯ	ɔ
f	f	o	o
d	d^w	u	u
s	s	ė	ə
x	x		
m	m	(space)	+
ṁ	m^w	?	→
n	n	? (Q-word question)	↘
g	ŋ	. (statement)	↘
l	l	**,	→
r	r	None	1,2,3,4
y	y		
w	w		

*Sentence initials and the initial of a proper noun are capitalised.

**Comma may occasionally be dropped.

3.3. DISTINCTIVE FEATURE COMPOSITION

The distinctive feature composition of the Ulithian segmental phonemes is indicated in FIGURE 4 (on page opposite). Features are based on Chomsky and Halle 1968.



	y	w	k	x	g	p	f	m	b	ṁ	c	s	r	d	t	n	e	ė	o	ȧ	a	ȯ	i	u	l
vocalic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+
consonantal	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-	+
coronal			-	-	-	-	-	-	-	-	+	+	+	+	+	+									
anterior			-	-	-	+	+	+	+	+	-	-	+	+	+	+									
high						-	-	-	+	+							-	-	-	-	-	-	+	+	
low																	-	-	-	+	+	+			
back	-	+															-	-	+	-	+	+	-	+	
nasal			-	-	+	-	-	+	-	+			-	-	-	+									
round																	-	+				-	+		
distributed													-	-	+										
continuant			-	+		-	+				-	+	-	+											

FIGURE 4

DISTINCTIVE FEATURE COMPOSITION OF SEGMENTS

3.3.1. In FIGURE 4, the omitted features which are redundant are supplied by the following ordered rules.

PR 1 [-consonantal] → [-coronal, -anterior]

PR 2 [{[+coronal, +anterior], {[+consonantal, -anterior], [-vocalic, -consonantal]}}] → [[-high], [+high]]

PR 3 {[-high], [+anterior, -high]} → [-low]

PR 4 [{[+consonantal, -high], [+coronal, -anterior]}, [+consonantal, -coronal, +high]] → [[-back], [+back]]

PR 5 {[+vocalic], [-vocalic, -consonantal], [+coronal, -anterior]} → [-nasal]

PR 6 [{[+consonantal], [+high, -back], [+low, -back]}, {[-vocalic, -consonantal, +back], [+vocalic, -low, +back]}] → [[-round], [+round]]

PR 7 $\begin{bmatrix} \{[-\text{consonantal}]\ [-\text{coronal}\ +\text{anterior}]\} \\ \{[+\text{consonantal}\ -\text{anterior}]\ [+\text{coronal}\ +\text{anterior}\ +\text{nasal}]\} \end{bmatrix} \longrightarrow \begin{bmatrix} [-\text{distributed}] \\ [+\text{distributed}] \end{bmatrix}$

PR 8 $\begin{bmatrix} \{[+\text{anterior}\ +\text{distributed}]\ [-\text{coronal}\ +\text{nasal}]\} \\ \{[-\text{consonantal}]\ [+\text{anterior}\ +\text{high}\ -\text{nasal}]\} \end{bmatrix} \longrightarrow \begin{bmatrix} [-\text{continuant}] \\ [+\text{continuant}] \end{bmatrix}$

PR 9 $[+\text{vocalic}\ +\text{consonantal}] \longrightarrow [+\text{coronal}\ +\text{anterior}\ -\text{distributed}\ +\text{continuant}]$

3.3.2. *STATEMENT OF INHERENT NON-DISTINCTIVE FEATURES*

(1) Voicing

PR10 states that vowels, glides, liquid, nasals, interdental, bilabial, and the trill are voiced:

PR 10 $\begin{bmatrix} [-\text{consonantal}] \\ [+\text{nasal}] \\ [+\text{coronal}\ -\text{distributed}] \\ [+\text{anterior}\ +\text{back}\ +\text{continuant}] \end{bmatrix} \longrightarrow [+\text{voiced}]$

(2) Releasing

All consonants are released either instantaneously or with a delay. The restriction of release in some environments will be shown by later rules.

PR 11 $[+\text{consonantal}] \longrightarrow [+\text{release}]$

(3) Aspiration

No consonant is inherently aspirated. Slight aspiration, however, may be noticed in stops when they occur finally (see *PR 55*).

PR 12 [+consonantal] ⟶ [-aspirated]

(4) Tenseness

Since long vowels and consonants are viewed as geminate, tenseness does not play a differentiating role. *PR 13* states that all phonemes are inherently not tensed. A later phonetic rule (*PR 56*) will show that segements become tensed when they are doubled.

PR 13 [±vocalic] ⟶ [-tense]

3.4. CONTRASTS IN SURFACE FORM

One of the major reasons for setting up underlying base forms that differ in certain ways from their surface manifestations is that there are many surface contrasts of limited distribution. These problematic contrasts are presented in what follows and the solution I have elected to use for each is given in the next section.

(1) A superficial non-contrast might be noticed between the velarised bilabial stop (i.e. ṁ) and its plain counterpart (i.e. m) when they are in unreleased position, i.e. before a pause or a homorganic consonant. Consider, however, the following pair:

(E 1) a. [lɑ:$^{\dot{+}}$m] *'mosquito'*
b. [la:m] *'lamp; clear'*

A spectrographic analysis indicates that the second formant of the vowel in (E 1a) falls rapidly to the back [u] or [o] position which indicates the velarisation of the following consonant, while the vowel in (E 1b) shows a smooth transition to the plain [m] position. This evidence and the distributional limitation of [ɑ:] or [ɑ] lead to the interpretation that the contrast is between the two final nasals and [ɑ:] in (E 1a) is caused by the [+back] feature of the final nasal.

(2) Two [l]s of different quality contrast in certain limited environments. In the first place, the so-called "construct suffix" morpheme [l] *'of'* (referred to as **Cs-l**) and the third person singular possessive suffix morpheme [l] *'his'* (3s-l) contrast in many instances. In such contrasts, **Cs-l** is light and relatively fronted, while 3s-l is dark and retracted. The different qualities of the two [l]s are reflected rather clearly in certain preceding stem vowels (see below), which fact might

lead one to suppose that the grammatical difference in the two morphemes concerned is manifested by the stem vowels and that there are different allophones of l following these vowels.[1] Thus, for example, the following variations of [l]s and the preceding stem vowels are noticed:

(E 2) [wubʷelˁ] *'chest of'* : [wubʷalˀ] *'his chest'*
[tapalˁ] *'cheek of'* : [tapalˀ] *'his cheek'*
[sogoˆlˁ] *'stick of'* : [sogoˇlˀ] *'his stick'*

No contrasts are found if the vowel preceding [l] is a single short [i, e, u, ə]. Double (long) [e] does show a contrast before the two suffixes.

(E 3) [ŋi:lˁ] *'teeth of'* : [ŋi:lˁ] *'his teeth'*
[raxelˁ] *'age of'* : [raxelˁ] *'his age'*
[lurulˁ] *'shade of'* : [lurulˁ] *'his shade'*
[ɓʷɔ:ɗəlˁ] *'nose of'* : [ɓʷɔ:ɗəlˁ] *'his nose'*
[pece:ˆlˁ] *'foot of'* : [pece:ˇlˀ] *'his foot'*

If the [l]s of the two morphemes were to be considered as identical phonemically, a number of new vowel phonemes would have to be set up, e.g. a in contrast with ɑ, eˆ in contrast with eˇ, etc. Besides, no regularity could be found in the alternation between the two series of stem vowels.

(E 4) [e] +Cs-l : [ɑ] +3s-l
[e] " : [e] "
[a] " : [ɑ] " , etc.

As an alternative to this treatment that would set up many more vowel phonemes of limited distribution, two distinct phonemes might be postulated, with the above vowel contrasts considered as allophonic variants conditioned by the ls. But the two ls would actually contrast only in these two morphemes (Cs and 3s) after certain vowels; in all other positions (with the possible exception of (E 6) below) they are in complementary distribution, varying mechanically according to the neighbouring vowels. One could bring this limitation out in a transcription by using an l archiphoneme in the non-contrastive positions - using for example ls with fronting and backing diacritics for the fully specified ls, and an l without diacritic for the archiphoneme.

(E 5) /wubʷel/ *'chest of'* : /wubʷalˀ/ *'his chest'*
/tapalˁ/ *'cheek of'* : /tapalˀ/ *'his cheek'*

---

[1] Dyen (1965:33 *et seq.*) seems to be following such a hypothesis in his statement of a partially parallel phenomenon in Trukese.

/raxel/ *'age of'* : /raxel/ *'his age'*

This solution implies two allomorphs for each morpheme. Or one could follow the principle "once a phoneme, always a phoneme" (Householder 1964:25) and extend the contrast to the many non-contrastive positions in a transcription, but this would introduce a great deal of unnecessary redundancy and tend to obscure the severe distributional limitation of the l-contrast. None of the possible solutions discussed thus far would provide a basis for any simple generalisation concerning the vowel alternations before the two suffixes in certain forms but not in others.

A second instance of the l-contrast may be found in the following examples:

(E 6) [xɑɗalˀ//ɓʷo] *'to walk in line because...'*
[xɑɗɑlˀɓʷo] *'supposedly'*

[xɑɓʷlˀe] *'we(excl) will...'*
[xɑɓʷlˀe] *'to miss him'*

The members of the first pair in (E 6) differ from each other in the [l] quality, low vowel quality, and juncture. Those of the second are minimal with the single difference of [l]s. The evidence given by the second pair does not allow for the interpretation that the two different [l]s in the first pair are caused by the preceding different low vowel qualities but rather the other way around. On the other hand, there is no indication that the different [l]s are the function of the presence or absence of the juncture. From the surface forms alone in (E 6), therefore, there would seem to be no other satisfactory solution than to set up two phonemic ls.

(3) In word-final position, velar [x] followed by a [+back] voiceless vowel (i.e. [0, A, U]) contrasts with [x] followed by Ø or with [g] followed by a corresponding voiced vowel.

(E 7) [ɓʷurɑ˚x0] *'smoke'* ; [maleka:x0] *'travel'*
[xɑ:x0] *'helm'* ; [ɗo˚x0] *'to get'*
[kəlɔ˚x0] *'hungry'* ; [ɓʷɑrəx0] *'dance'*
[ɓʷulɑxA] *'taro'* ; [fɑsɑmɑxA] *'pebble'*
[mɑŋɑ:xU] *'clothes'*; [ɓʷuxU] *'knot'*
[tet:erax] *'sailing'*; [ɓʷ:arex] *'pain'*
[ləɓʷa:x] *'to hide'*; [tɔgɔx] *'coconut shell'*
[kɑgo] *'box'* ; [tɑmɑgo] *'cigarette'*

The most conspicuous occurrence of this kind is associated with the second person singular object suffix, which has the phonetic form [x0]

and its allomorph [xU]. The latter occurs after a high vowel (e.g. i and u) and the former elsewhere.

(E 8) [pɑ:luxU] *'to lead you'*
Cf. [pa:liyey] *'to lead me'*

[tɑvɑˑxO] *'to cut you'*
Cf. [tɑvayey] *'to cut me'*

[ɗɑɓʷoˑxO] *'to follow you'*
Cf. [ɗaɓʷeyey] *'to follow me'*

The above surface information would lead one to postulate a set of voiceless vowels of extremely limited distribution (finally after /x/), or else a /g/ phoneme (in partial complementation with /x/) to account for the final vowels that do not devoice.

(4) Another problem is associated with [x] (or [g]) and [k]. These two segments contrast in all three positions: initial (e.g. [xɑl] *'arrow'* and [kɑl] *'to look at'*), medial (e.g. [mɑgɑl] *'separated'* and [mɑk:ɑl] *'comb'* or [mɑka:θ] *'to ask'*), and final (e.g. [pax] *'sprout'* and [pak] *'gun'*). On the other hand, double [x] (or [g]) is not found. The only possible attested example of double [x] is [x:alfəŋ] *'coolness'* which has a strong initial [x] compared to such words as [xɑl] *'his food'*. But this exceptional fortisness of [x] may be ascribed to the short fronted [a] reinforced by the following consonant cluster. Thus doubling of [x] parallel to other consonants has been found impossible after a checking of most occurrences in my data with an informant. Regarding [k], very few convincing minimal pairs with the contrasting [k] and [k:] are noticed.

(E 9)	*Mogmog*	[kak]	*'to carry'*	:	[k:ak]	*'to be carrying'*
	Falalop	[kak]	"	:	[kak:ak]	"
	Mogmog	[makel]	*'sugar cane'*	:	[mɑk:ɑl]	*'comb'*
					[mak:el]	*'tattoo of'*
	Falalop	[mak:il]	"	:	same as above	

The closeness between the two sounds may be observed in the reduplication of initial [x] which gives a result identical to the reduplication of initial [k].

(E 10)	[xasi]	*'to carry'*	:	[kak:asi]	*'to be carrying'*
	[xus]	*'to burn'*	:	[kuk:us]	*'to be burning'*
	[xamaθ]	*'to cook'*	:	[kak:amaθ]	*'to be cooking'*

The problem raised here is whether [x] and [k] might be interpreted phonemically as k and kk respectively, as seems possible for closely

related languages such as Saipan Carolinian.

(5) One contrast of vowels of high frequency of occurrence is that of two low vowels [a] and [ɑ]. They contrast not only before the two morphemic [ɪ]s (Cs and 3s) as in (E 11) but also in many independent forms as in (E 12).

(E 11)

short	[wɑgaɪ]	*'vein of'*	:	[wɑgɑɪ]	*'his vein'*
	[taɪ]	*'rope of'*	:	[tɑɪ]	*'its rope'*
	[tɑpaɪ]	*'cheek of'*	:	[tɑpɑɪ]	*'his cheek'*
long	[wa:ɪ]	*'canoe of'*	:	[wɑ:ɪ]	*'his canoe'*
	[yifa:ɪ]	*'underside of'*	:	[yifɑ:ɪ]	*'its underside'*

(E 12)

short	[maθ]	*'sated'*	:	[mɑθ]	*'cooked'*
	[ɓʷaɪ]	*'to inspect'*	:	[ɓʷɑɪ]	*'stuck'*
long	[ya:f]	*'fire'*	:	[yɑ:f]	*'swimming'*
	[ta:ɪ]	*'rope'*	:	[tɑ:ɪ]	*'well versed'*
	[fa:s]	*'stone'*	:	[fɑ:s]	*'penis'*

In spite of the high frequency of the contrast, several points may be noted against the establishment of the two separate phonemes. In the first place, there is no such contrast in the environment C__#. Observe the following examples of low and front vowel contrasts:

(E 13)

[ri] *'spouse'*	[lɪ] *'to kill'*	[ɓʷɪ] *'sides of vagina'*	
[re] *'they'*	[le] *'this'*	[ɓʷe] *'fortune-telling'*	
[ræ] *'side'*	[læ] *'as'*	[ɓʷæ] *'to find out'*	
[rɑ] *'branch'*	[lɑ] *'that'*	[ɓʷɑ] *'rotten'*	
*[ra]	*[la]	*[ɓʷa]	

Secondly, [ɑ] in C__# will be differentiated into front and retracted if Cs-ɪ and 3s-ɪ follow, which fact suggests that the contrast may not be inherent but the result of the influence of the suffixal environment.

(E 14)

[rɑ] *'branch'* < [ra:ɪ] *'branch of'*
[rɑ:ɪ] *'its branch'*

Thirdly, no contrast has been found in the environment X__Y in which X is non-null and Y is a syllable, though both the fronted and retracted low vowels may occur in the position. That is, their occurrences are perfectly predictable according to X and Y. Observe the first vowel in each word in (E 15) whose fronting or retracting can be predicted by the vowel in the following syllable, i.e. fronted if the following vowel is a front one (i.e. [i, e, æ, ə]) and retracted elsewhere.

(E 15) [maɗep] *'a part'*
[mɑɗɑr] *'to disperse'*

[maɖel] *'being sated of'*
[maɖal] *'its being cooked'*

In short, the contrast between [a] and [ɑ] is limited to the environment __C#.

(6) A final problem regarding surface contrasts is raised in connection with two different monophthongal vowel qualities in the mid-central area that contrast only when long. For the moment, the two qualities are transcribed respectively as [ə] and [ë].

(E 16) [tə:s] *'truth'* : [të:s] *'porcupine fish'*
[ɖə:r] *'lavalava'* : [ɖë:r] *'indebtedness'*
[pə:l] *'emptiness of'* : [pë:l] *'arm of'*

The vowel in the first column is very common and the representative phone of the phoneme ə appearing in TABLE II under 3.1., while the vowel in the second is rare but also occurs in a few other forms such as:

(E 17) [yë:r] *'accustomed; name of an island'*
[më:l] *'name of a star'*
[më:r] *'fresh (tree, fish, vegetables)'*
[cë:l] *'leaf of'*

Sound spectrographs show that the two contrasting vowels are monophthongal, and that F1 of the vowel in [tə:s] = 450; F2 of the same = 1600; F1 of the vowel in [të:s] = 550; F2 of the same = 1400. The above formants indicate that the two sounds [ə] and [ë] are very close to French vowels ø and œ respectively (Delattre *et al.* 1952:198). [ə] seems to have more lip rounding than [ë].

Several problems are involved in the phonemic interpretation of the two sounds. First of all, the number of forms involving [ë] is very small. The above examples are the only ones in my collection of 2500 lexical items. Secondly, the contrast between the two is limited to long segments. Thirdly, [ë:] in C__C is not shortened before a suffix, while [ə:] may be:

(E 18) [ɖə:r] *'lavalava'* : [ɖərəl] *'lavalava of'*
[ɖë:r] *'indebtedness'* : [ɖë:rəl] *'indebtedness of'*
[tə:s] *'truth'* : [tə:səl] *'truth of'*
[të:s] *'porcupine fish'* : [të:səl] *'porcupine fish of'*

These limitations make one hesitant to set up two mid-central vowel phonemes.

3.5. CONTRASTS IN DEEP FORM

3.5.1. *SUGGESTED SOLUTIONS*

Most of the problems raised in the preceding section will be solved simply, straightforwardly and with greater generality by introducing non-*ad hoc* base forms in the grammar. Then, as will be seen, superficial contrasts of limited distribution turn out to be allophonic variants conditioned by material present in the base forms but not readily observable on the surface, or a geminate versus a sequence of different phonemes as in the case of the two vowel qualities in the mid-central area. Such base and surface forms will be directly related by a series of ordered phonological rules, which will be developed in 3.6. The approach followed here not only solves the problem of limited distribution but also contributes to regularising most of the irregular morphophonemic alternations.

(1) A solution to the problem concerning seeming vowel contrasts before bilabial stops has already been implied in the earlier discussion; the bilabials can be said to contrast in all positions on the surface, and condition vowel allophones that in some cases constitute their chief stigmata. At a deeper level, however, the surface contrast between the final bilabial stops ([m] and [mʷ]) may further be removed if the reconstructed final vowel is o or u, since in that environment no contrast is found between the bilabial stops. Thus, for example, the base forms of the items in (E 1) are established as below.

(E 19) a. lamo *'mosquito'* (Cf. [lɑmʷol] *'mosquito of'*)
b. lama *'lamp; clear'* (Cf. [lamal] *'lamp of'*)

Then, later phonological rules will impose the [+back] feature in o on the preceding m (*PR 39*), drop the final vowels in (E 19a & b) (*PR 40*), and lengthen CVC forms compensatorily (*PR 41*). The reason for the establishment of m rather than ṁ in their non-contrastive position (e.g. la_o) is that base forms should be free from maximum redundancy even in feature terms. That is, ṁ is more marked than m and [+back] is redundant in that particular position. This treatment seems to be better motivated than establishing an archiphoneme (e.g. M) of the Praguian tradition (Hockett 1955:164).

(2) With regard to the problem of two [l]s of different quality, the Cs and 3s morphemes are reconstructed as li and la respectively. Seemingly contrasting stem vowels before the two morphemes are both derived from the same basic stem vowel as the result of the conditioning of the two contrasting basic (i.e. reconstructed) vowels i and a in the

suffix morphemes li and la. In other words, li and la lose final vowels, as in all other lexical base forms, but still carry other features of the vowels such as [+high, -back, -low] from i and [-high, +back, +low] from a, which cause the alternations of the stem vowels. Therefore, the process is active, i.e. synchronic. The fronted and retracted ls thus effected are unable to affect the basic stem vowels, if the stem vowels are i, u, ė, or a short e, but conversely are assimilated in quality to these mid or high vowels. These four basic stem vowels happen to correspond to Sonsorol high vowels in most instances (Bender 1967a and Quackenbush 1968).

(E 20)	*Ulithian base forms*	*Sonsoral indicative forms**	
	tagi	taagI	*'to cry'*
	Cf. [ta:ŋ] (ind. form)		
	[taŋil] (+ Cs)		
	lutu	rutU	*'to jump'*
	Cf. [lut] (ind. form)		
	[lutul] (+ Cs)		
	mawulu	mawurU	*'war'*
	Cf. [mɑwul] (ind. form)		
	[mɑwulul] (+ Cs)		
	yade	yaatI	*'gall bladder'*
	Cf. [ya:θ] (ind. form)		
	[yaθel] (+ Cs)		
	taxuru	talɨxɨ**	*'back'*
	Cf. [tɑgur] (ind. form)		
	[tɑgurəl] (+ Cs)		
	fadė	faatɨ	*'eyebrow'*
	Cf. [fa:θ] (ind. form)		
	[faθəl] (+)		

* Symbols are adapted for ease of comparison.

** ɨ is a high central or back unrounded vowel.

From the above comparative evidence, a tentative conclusion is that only those vowels which were historically high vowels may be resistant to the influence from the following ls of different quality. This may be supported by the fact that Sonsorol preserves many reflexes of original forms.

The irregular alternation of the stem vowels before the two morphemes Cs and 3s, as illustrated in (E 4), will turn out to be regular only by

setting up well-motivated basic stem vowels covering all relevant lexical items and by developing a set of morphophonemic rules of full generality to map the base forms onto surface manifestations (for the rules, see 3.6.). Thus, for example, the basic stem vowels underlying (E 4) are decided on as follows:

(E 21)

a	[e]	:	[ɑ]
	[a]	:	[ɑ]
e	[e]	:	[e]

The difference in alternation between [e] : [ɑ] and [a] : [ɑ] is due to the conditioning of the vowel in the preceding syllable, e.g. [a] : [ɑ] when the preceding vowel is a or ȯ (see *PR 31*). For the whole system of basic stem vowels, see TABLE IV in 3.6.5. (E 22) below gives the base forms corresponding to (E 2) and (E 3).

(E 22)

wuba-li	*'chest of'*	:	wuba-la	*'his chest'*
tapa-li	*'cheek of'*	:	tapa-la	*'his cheek'*
soxo-li	*'stick of'*	:	soxo-la	*'his stick'*
gii-li	*'teeth of'*	:	gii-la	*'his teeth'*
raxe-li	*'age of'*	:	raxe-la	*'his age'*
luru-li	*'shade of'*	:	luru-la	*'his shade'*
bȯȯdu-li	*'nose of'*	:	bȯȯdu-la	*'his nose'*
pecee-li	*'foot of'*	:	pecee-la	*'his foot'*

The reconstruction of base forms for stems as well as for li and la is synchronic but largely corresponds to the forms of PAN and Sonsorol. Thus the reconstructed stem vowels not only have historical and comparative implications, but more significantly indicate the traditional declensional classes to which the bases belong. A sample of the comparison between Ulithian and Sonsorol forms (the latter cited from Quackenbush 1968) follows, in which the similarity between Ulithian reconstructed base forms and corresponding Sonsorol independent forms should be noted.

(E 23)

	base form	*ind. form*	+Cs	+3s
U.	yafara	[yafar]	[yafaralʿ]	[yafaralʾ]
S.	-	yafalA	yafalari	?
	'shoulder'			
U.	yiṁa	[i:$^{+}$m]	[imʷelʿ]	[imʷalʾ]
S.	-	yi:mʷA	yimʷeri	?
	'house'			

The second instance of the two l contrast (E 6) is also solved by setting up proper base forms. That is, they are allophones of a single

phoneme l. The processes involved are as follows.

(E 24)

base				*surface*
xadale#bo	==> xadaˁlˁe#bo	==> xadaˁlˁ#bo	==>	xadaˁlˁ//bo
PR32	*PR40*	*PR44*		
PR38				[xɑɗal//bʷo]
xadalboo	==>			xadalbo
PR40				[xɑɗɑlˀɓʷo]
xa#be#le	==> xa#be#lˁe	==> xabelˁe	==>	xablˁe
PR38	*PR44*	*PR48*		[xɑɓʷlˁe]
xabòle +ya	==> xabòley	==> xabòle	==>	xable
PR26	*PR45*	*PR48*		
PR40				[xɑɓʷlˀe]

The status of the forms between the base and the surface is neither phonemic nor phonetic as pointed out by Householder (1967:941):

> Once extracted from the lexicon, these matrices of binary features undergo a series of ordered alterations, in part corresponding roughly to traditional morphophonemic rules (and indirectly to historical phonological changes), and partly to the traditional statements specifying the allophones of the phonemes. At the end of this series the matrices are said to be 'systematic phonetic' representations. What they are in between is not clear, but presumably still abstract, substance-less 'systematic phonemic' representations.

(3) The problem regarding the contrasts which are associated with velar x in word-final position (see E 7 and E 8) can be solved most efficiently by setting up the base forms in such a way that the surface voiceless vowels are represented as full voiced single vowels and the surface voiced ones as geminate, while Ø vowels in this position are reconstructed in the same way as in all the other base forms. This treatment is well motivated in that (1) no words end in a double vowel on the surface, and (2) when suffixes are added voiceless vowels and Ø vowels are realised as single voiced vowels, while voiced vowels are realised as geminate vowels. These two points are basic for all reconstructions of Ulithian base forms. Thus the phonetic manifestations of independent base forms are effected by simply devoicing single [+back] vowels after x but dropping [-back] vowels in word-final position including the position x__# (see *PR 40*). The examples in (E 7) can be phonemicised in the following base forms. The corresponding phonetic forms followed by Cs-l are also given for reference.

(E 25)

buraxo	*'smoke'*	[ɓʷurɑgol]
malekaaxo	*'travel'*	[maleka:gol]
xaaxo	*'helm'*	[xɑ:gol]

doxo	*'to get'*	[ɗogol]
kɛ̀lɔ̀xo	*'hungry'*	[kəɓ gol]
barɛ̀xo	*'dance'*	[ɓʷarəgol]
bulaxa	*'taro'*	[ɓʷulɑgal]
fasamaxa	*'pebble'*	[fɑsɑmɑgal]
magaaxu	*'clothes'*	[maŋɑ:gul
buxu	*'knot'*	[ɓʷugul]
tetteraxe	*'sailing'*	[tet:eragel]
bbarexe	*'pain'*	[ɓʷ:aregel]
lɛ̀baaxe	*'to hide'*	[ləɓʷa:gel]
tɔ̀xɔ̀xɛ̀	*'coconut shell'*	[tɔgɔgəl]
kaxoo	*'box'*	[kɑgo:l]
tamaxoo	*'cigarette'*	[tɑmɑgo:l]

In the same way, the examples in (E 8) are the surface forms derived from the base forms in (E 26). Notice the morphophonemic changes effected in the morpheme boundaries (see PRs 35 and 36).

(E 26) paali + yeyi *'to lead me'* : paali + xo *'to lead you'*
tafa + yeyi *'to cut me'* : tafa + xo *'to cut you'*
dabe + yeyi *'to follow me'* : dabe + xo *'to follow you'*

(4) With reference to the problem concerning [x] (or [g]) vs. [k], there is, for the moment, no strong evidence to interpret [x] (or [g]) and [k] as k and kk respectively. In the first place, they differ phonetically not only in position (back velar : velar) but also in manner (fricative : stop). Secondly, though minimal pairs are not convincing, there are some apparent contrasts between [k] and [k:] in medial position, which are not easily predictable. The number is very small, however, since the total occurrence of [k(:)] is around 80 in my total collection of 2500 lexical items in comparison with around 250 occurrences of [x]. Out of 80, about 50 occur in initial position and only some 20 occur medially. The medial occurrences follow.

(E 27)

[k]		[k:]	
[ɓʷɑ:rko]	*'ship'*	[bucik:ar]	*'hot'*
[likamʷɔlmʷɔl]	*'hide and seek'*	[fɑrɑk:ɑtɑw]	*'become rich'*
[piska]	*'spear'*	[kək:ac]	*'to throw'*
[maleka:x0]	*'travel'*	[mɑk:ɑl]	*'comb'*
[meriken]	*'America'*	[suk:ut]	*'a little'*
[makil] (Falalop)	*'sugar cane'*	[wak:ey]	*'cow, ox'*
[lokɑ]	*'lock'*	[xɑk:ula]	*'kind'*
[muku]	*'to tremble'*		

[k]	[k:]
[kɔ:komʷ]	*'to play'*
[suku:n]	*'school'*

Thirdly, the free alternation between [x] and [k] in some words (e.g. [xapal] or [kapal] *'to dry out'*, [xapatapat] or [kapatapat] *'to talk'*) supports by no means the k : kk interpretation, since no other single and double consonants behave the same way without a change in meaning (e.g. [ɗar] *'to walk'* and [ɗ:ar] *'to run'*). Lastly, the k [x] : kk [k(:)] interpretation would constitute an exception to the rule that only single consonants may occur before a pause on the surface, because [mak] *'tattoo'*, interpreted as makk would be a counterexample to the rule, which would allow only [x] (k) in this position.

For these reasons, I have set up x and k, k contrasting with its corresponding kk. In this interpretation, the lack of double x is to be considered as a hole in the structure.

(5) That the low vowel qualities [a] and [ɑ] turn out to be predictable within the general interpretation adopted here should come as no surprise in light of the foregoing discussions, which indicated that the contrast between them was limited to the environment __C#, and that certain contrasts in this environment could be conditioned by stem vowels reconstructed in base forms following the consonant. Thus [a] and [ɑ] prove to be conditioned variants of a (see PR 32). Some of the examples in (E 11) and (E 12) are phonemicised as:

(E 28) waxa-li *'vein of'* : waxa-la *'his vein'*
waa-li *'canoe of'* : waa-la *'his canoe'*
made *'sated'* : mada *'cooked'*

Cf. [madel] *'being sated of'*
[madal] *'being cooked of'*

yafe *'fire'* : yafa *'swimming'*

Cf. [yafel] *'fire of'*
[yafal] *'swimming of'*

For related morphophonemic rules, see 3.6.4.

(6) With regard to the two mid-central vowel contrasts, the problem lies in the interpretation of [ë]. The words containing this sound correspond to words in other Trukic dialects that have a cluster rather than a long vowel (Quackenbush 1968).

(E 29) To Ulithian [pë] *'arm'* and [pë:l] *'arm of'* correspond:

Sonsorol: **paaw** and **paw+ri**
Tobi: **paaw+** and **paw+r**
Woleai: **paay+** and **payul**
Ifaluk: **paaw+** and **pawul**

To Ulithian [**ca:y**] *'leaf'* and [**cë:l**] *'leaf of'* correspond:
Sonsorol: **saaw+** and **saaw+ri**
Tobi: **caaw+** and **caaw+r**

To Ulithian [**të:s**] *'porcupine fish'* correspond:
Sonsorol: **tay+θ**
Tobi: **taw+s**

This comparative evidence suggests the interpretation of the sound concerned as a phoneme cluster, since the establishment of a new phoneme should be rejected for the distributional reasons indicated in the preceding section. The above evidence would suggest the reconstruction of [**ë:**] as either **ayu** or **awu**, but these sequences must be used for words like [**xadayu**] *'to inherit'* and [**mawul**] *'war'*. A close examination of all words containing **VyV** and **VwV** reveals no forms having [**ayə**], [**æyə**], [**æwu**], and [**æwə**]. Thus it may be hypothesised that [**ë:**] has developed from one or more of these sequences. The construct form of [**ca:y**] is [**cë:l**]. Therefore, the base form may be reconstructed as **cayė** and then the independent form will be derived by dropping the final vowel and giving compensatory lengthening, i.e. [**ca:y**]. [**pë**] and [**pë:l**] should be handled differently because they do not show parallel alternation. Ulithian **à** corresponds in many cases to **a** of other Trukic languages, and Ulithian **u** to **+**. Thus the base form of [**pë**] will be set up as **pàwWu** in which **W** is introduced as a device to block compensatory lengthening in independent form (see *PRs 41-43*). The other examples such as [**të:s**] and [**ɗë:r**] *'indebtedness'* may be handled as either **ayė** or **àwu**. The latter will be followed sonsistently simply because it seems to be more correspondent to the forms of the neighbouring languages. A later phonetic rule will specify the phonetic quality of these phoneme composites (*PR 58*).

A similar instance is noticed in the frequent assimilation of **awu** to [ɔ:], which will be taken up later (*PR 21*).

3.5.2. *EXAMPLES OF CONTRASTS IN BASE FORM SEGMENTS*

Minimal pairs have not been found in sufficient number to make phoneme attestation easily, but the following examples may suffice to show their contrasts:

(1) *consonants*

p	pare	*'a kind of fruit'*	tapa	*'cheek'*
t	tale	*'rope'*	tata	*'a kind of fish'*
c	cale	*'water'*	faca	*'pandanus fruit'*
k	kakka	*'to carry'*	piskaa	*'spear'*
b	bade	*'scar'*	taba	*'taboo'*
f	fase	*'stone'*	yafa	*'swimming'*
d	daa	*'intestine'*	fade	*'string'*
s	sare	*'big knife'*	fasa	*'penis'*
x	xapi	*'bottom, hip'*	waxa	*'vein'*
ṁ	ṁale	*'man'*	ṁeṁee	*'to look for'*
m	male	*'animal, bird'*	lama	*'light bulb'*
n	naanaa	*'mammy'*	sukuun	*'school'*
g	gaag	*'I'*	faga	*'to permit'*
l	lage	*'sky'*	cale	*'water'*
r	rale	*'day'*	baro	*'box'*
y	yala	*'sun'*	xaya	*'fish hook'*
w	waa	*'canoe'*	wawa	*'stick dance'*

(2) *short vs. long consonants*

Defective are (i) quasi-native n which has the lowest frequency of occurrence; (ii) x about which mention has been made earlier.

p : pp	pale	*'dry'*	ppale	*'light'*
	capPi	*'ancestor'*	cappa	*'turning over'*
c : cc	caga	*'short of reach'*	ccaga	*'skinny'*
k : kk	makili	*'sugar cane'*	makkala	*'comb'* (Falalop)
b : bb	barexe	*'hot (taste)'*	bbarexe	*'pain'*
	bece	*'hot'*	bbece	*'white'*
	wuba	*'chest'*	bubbu	*'fish spec.'*
f : ff	fisi	*'star'*	ffisi	*'lightning'*
	yafe	*'fire'*	yaffe	*'land crab'*
d : dd	dare	*'to walk'*	ddare	*'to run'*
s : ss	sogo	*'mangrove'*	ssogo	*'angry'*
	kakkassiya	*'be asking'*	kakkasi	*'be taking'*
ṁ : ṁṁ	ṁọlo	*'desire'*	ṁṁọlo	*'generous, kind'*
	ṁixilici	*'micer'*	ṁṁixi	*'pepper'*
m : mm	mata	*'eye'*	mmata	*'to wake up'*
	madare	*'to disperse'*	mmadare	*'to burst'*

g : gg	gata	*'hole'*	ggata	*'hurry'*
	fayelaga	*'world'*	fayigga	*'itchy feeling'*
l : ll	loyYo	*'perfume'*	lloyo	*'wet'*
r : rr	ro-	*'all'*	rro-	*'string-bound bundle'*
	raxe	*'year, age'*	rrayi	*'happy'*
y : yy	wayele	*'plane'*	fayye	*'to whet'*
			xayyòrò	*'to clean anus'*
w : ww	wele	*'strange' different'*	wwele	*'straight'*
			buyowwe	*'fishing trap'*

(3) *vowels*

i	lli	*'to kill'*	cibe	*'scissors'*		
e	lee	*'this'*	pecee	*'leg'*		
å	lå	*'as, which'*	påce	*'sexual lust'*		
a	laa	*'that'*	capi	*'lavalava'*	paca	*'tail'*
ò	còò	*'people'*	llòyo	*'sweet'*	bòlo	*'feather'*
u	cuu	*'to meet'*	lloyo	*'wet'*	bolo	*'soil'*
ė	tė	*'for a moment'*	lėgė	*'ant'*	bbėlė	*'filthy'*

(4) *short vs. long vowels*

In the base form phonemicisation, many superficial length contrasts are suppressed. For example, [pix] *'to play ball (v.)'* and [pi:x] *'ball (n.)'* have no contrast in length in the base. Both are derived from the same base pixi, the noun form by compensatory lengthening and the verb without it, after the dropping of the final vowel. Most of the following examples are not minimal, since not enough have been found:

i : ii	cima	*'head'*	ciifeli	*'nail'*
e : ee	fedexe	*'fight'*	feefele	*'woman'*
å : åå	båxi	*'to float* (Vt)*'*	xååtaa	*'to do what'*
a : aa	xaamami	*'we(excl)'*	xaamaama	*'to practise'*
	fale	*'food pounder'*	faale	*'cynical'*
ò : òò	bògu	*'feast'*	bòòdė	*'nose'*
o : oo	bolo	*'soil'*	booto	*'boat'*
u : uu	lutu	*'to jump'*	luutu	*'soft wood'*
	buru	*'high tide'*	duuduu	*'to bathe'*

ė : e̊e̊	dėrė	*'women's lavalava'*	tė̊e̊sė	*'truth'*
	fėlaga	*'ashes'*	yirė̊e̊tė	*'village'*

3.5.3. *SUPRASEGMENTAL PHONES*

(1) Stress is non-phonemic. For its subphonemic appearance, see PR 59.

(2) *+ juncture*

A juncture is phonetically manifested by a slight pause or by a lengthening of the preceding vowel. The fact that juncture is phonemic is shown by the following contrasts:

(E 30) a. [xɑmɑθ] *'to cook'*
[xɑ // mɑθ] *'always cooked'*

b. [te-k̟amuɗi:ɗi] *'very pretty'*
[te // kamuɗi:ɗi] *'not pretty'*

c. [re-yeŋa:ŋ] *'worker'*
[re // yeŋa:ŋ] *'They work.'*

Although the absence of + juncture is a morpheme boundary may effect some phonetic change on the neighbouring sound (see b. above), the absence is not considered as a separate phoneme, since no distinctive purpose is thereby served.

(3) *three clause terminals*

Three clause terminals ↗, →, and ⟶ are set up as phonemes: the first (rising) is used in "yes-no" questions, the second (fading) in interrogative-word questions and in statements, and the third (sustained) in non-final multiple clauses within a sentence.

(E 31) Ye be buu doxo ⟶ yi be kapatapata gali-ya →
'If he comes, I will talk to him.'

Xo sa loxo Yulidity ↗
'Did you go to Ulithi?'

(4) *four pitch levels*

Four contrasting phonemic pitch levels are recognised: 1, 2, 3, and 4. 2 3 1 pattern is the most common in statements and interrogative-word questions, while 2 2 3 occurs in questions of "yes-no" type. 4 is frequent in surprise "yes-no" questions.

(E 32) ^{2}Xo + be + ^{3}yiiyaa^{1} →
you where
'Where are you going?'

^{2}Yi + be + loxo + ^{3}sukuun^{1} ↘
'I'm going to school.'

^{2}Ye + sa + dabe-ya + ^{2}wayele^{3} ↗
'Did he go by plane?'

^{2}Ye + sa + dabe-ya + ^{2}wayele^{4} ↗
'Is it true that he went by plane?'

^{2}Ye + weri + ^{3}se-male + medaa^{1} ↘
what, something
'He saw one (animate) thing.'

^{2}Ye + weri + se-male + ^{2}medaa^{3} ↗
'He saw something (animate)?'

^{2}Ye + weri + ^{4}se-male + medaa^{1} ↘
'One (animate) of what did he see?'

3.5.4. *PHONOTACTICS*

(1) Consonants may occur singly or doubled, word-initially and word-medially both in the base and on the surface. Only single consonants may occur word-finally.

(E 33)

base	*surface*	
diddi	[ɗiθ]	*'sewing'*
diddi-li	[ɗiɗ:il]	*'sewing of'*
cox	[cox]	*'just'*

In principle, no cluster of non-identical consonants may occur word-initially on the surface. Clusters are allowed in medial position, however, in which case an excresent vowel optionally intervenes if the members of a cluster are not in the same position of articulation and if the first consonant is not one of l, n, and g (see PR 54). Accordingly, clusters will be included in the medial position in base forms, if the clusters are inherent, i.e. not derived as the result of vowel reductions (see PR 48).

(E 34)

base	*surface*	
walsuu	[wɑlsü]	*'tomorrow'*
malboo	[mɑlbo]	*'maybe'*
piltaa	[pilta]	*'to close'*
sandee	[sanɗe]	*'Sunday'*
kantine	[kantin]	*'store'*
nambaa	[nɑmɓʷɑ]	*'number'*
baarkoo	[ɓʷɑ:rko	*'ship'*
tɨ̀xtaa	[təxtɑ]	*'doctor'*

(2) No vowel is allowed initially except for some loan words and exclamation particles.

(E 35) [ɑ:mʷ] *'administration'*
[a:k] *'Oh!'* (in free variation with [ya:k])
[a:y] *'Well!'*
[ey] *'By the way!'* (in free variation with [yey])

Single or double vowels may occur medially both on the surface and in tha base, but finally only in the base.

Thus the predominant canonical form in the base is -

C(C)V(V)(C(C)V(V)...

(3) *glide consonants* y *and* w

[y] and [w] contrast in all positions.

(E 36) [yɑ:l] *'sun'* : [wɑ:l] *'his canoe'*
[ɓʷeɓʷayel] *'papaya of'* : [ɓʷoɓʷawel] *'bamboo of'*
[wa:y] *'my canoe'* : [wɑ:w] *'stick dance'*

[y] and [w] contrast with ∅ initially and finally.

(E 37) [yɑ:mʷ] *'your object'* : [wɑ:mʷ] *'your canoe'* :
[ɑ:mʷ] *'administration'*
[cuy] *'to disappear'* : [cu] *'to meet'*
[luw] *'surprised'* : [lü] *'coconut'*

Initially and intervocalically before a high or mid front vowel (i.e. [i] and [e]) and finally after [i], [y] is in free variation with ∅. Initially and intervocalically before [u], [w] is in free variation with ∅. Thus there are no contrasts like the following in the said positions:

[yi] : [i] [iy] : [i]
[ye] : [e]
[wu] : [u]

The phonemicisation of the words containing these sounds will be based on the predominant canonical form. Thus the following can be viewed as rules for transcribing the sounds in question:

1. $\left\{\begin{matrix}[y]\\ \emptyset\end{matrix}\right\} \longrightarrow y \;/\; \left\{\begin{matrix}V\\ \#\end{matrix}\right\} — \left\{\begin{matrix}i\\ e\end{matrix}\right\}$

(E 38) $\left\{\begin{matrix}[yi]\\ [i]\end{matrix}\right\}$ *'I'* ⟶ yi; $\left\{\begin{matrix}[yiwe]\\ [iwe]\end{matrix}\right\}$ *'then'* ⟶ yiwee

$$\left\{\begin{matrix}[ye]\\[e]\end{matrix}\right\}\ 'he' \longrightarrow ye; \quad \left\{\begin{matrix}[yi:ya]\\[i:ya]\end{matrix}\right\}\ 'where' \longrightarrow yiiyaa$$

$$\left\{\begin{matrix}[wayel]\\[wael]\end{matrix}\right\}\ 'plane' \longrightarrow wayele$$

ii. $$\left\{\begin{matrix}[y]\\ \emptyset\end{matrix}\right\} \longrightarrow \left[\begin{matrix}y\\ \emptyset\end{matrix}\right] \ / \ \left[\begin{matrix}ii\\ i\end{matrix}\right] \_\#$$

(E 39) $$\left\{\begin{matrix}[(y)i:y]\\[(y)i:]\end{matrix}\right\}\ 'he\ (Pro)' \longrightarrow yiiy$$

$[(y)i]$ *'I'* ⟶ yi

iii. $$\left\{\begin{matrix}[w]\\ \emptyset\end{matrix}\right\} \longrightarrow w \ / \ \left\{\begin{matrix}V\\ \#\end{matrix}\right\} \longrightarrow u$$

(E 40) $$\left\{\begin{matrix}[wu:c]\\[u:c]\end{matrix}\right\}\ 'banana' \longrightarrow wucu$$

$$\left\{\begin{matrix}[wu:ɓʷ]\\[u:ɓʷ]\end{matrix}\right\}\ 'chest' \longrightarrow wuba$$

$$\left\{\begin{matrix}[cariwuriw]\\[cariuriw]\end{matrix}\right\}\ 'to\ shine' \longrightarrow cariwuriwa$$

3.6. MORPHOPHONEMIC RULES

3.6.1. *GENERAL*

As mentioned in 2.2.2., two kinds of morphphonemic rules are differentiated in this study: (1) feature realisation rules, and (2) phonetic rules. The first set of rules is related to the processes which derive lexical base forms (inherent or extended) from certain grammatical or lexical formatives associated with a set of features. As grammatical formatives, three are taken into account: **Pm** (predication marker), **At** (attributive marker), and **Os** (object suffix), which will be realised as inherent base forms. As lexical formatives, all verbs associated with **<+Prog>** (see *PR 1*) are dealt with, which will be realised as extended base forms.

Phonetic rules provide the processes of modifying the phonological structures of base forms in order to derive the corresponding surface

manifestations. Some of the phonetic rules are limited in applicability to certain morphological or syntactic environments, and others apply with full generality.[2] The former set of phonetic rules precedes the latter in 3.6.3., since this ordering contributes to simplicity.

In the development of phonetic rules, two kinds of syntactic boundary symbols, + and #, and a phonetic juncture, //, are introduced.[3] Of these, the + has nothing to do with the + juncture phoneme, but corresponds roughly to a morpheme boundary within a word but is introduced mainly for the purpose of the proper application of certain phonetic rules. When words contain a morpheme boundary, they must be placed as the input to the rules containing this symbol before they can be carried through other kinds of rules. The # is roughly equivalent to word boundary, which has characteristics different from + in affecting modifications to neighbouring segments. The // will be derived from #, but there is no one-to-one correspondence between the two (see PR *44*).

The phonetic rules presented here will specifically be related to the following:

(1) object marker suffixation (Os)
(2) attributive marker (At) suffixation
(3) alternation in numerative compounds (NuCm)
(4) predication markers (Pm), tense-aspect markers (TA), and directionals (DIR) in relation to preceding or following elements
(5) various sandhi or internal alternations.

Since all the rules are divided and arranged into two main parts, i.e. morphologically conditioned rules and phonologically conditioned ones, it would be inefficient to present them in an order organised about the above points one-by-one. The necessity of giving the rules some further ordering also contributes to the difficulty of organising their presentation around the above points. 3.6.4. may serve a recapitulation under this situation. Idiosyncratic alternations are not

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[2] Saumjan (1967:1760) calls attention to Chomsky's failure to distinguish the two kinds of rules in phonological processes. Saumjan thus distinguishes between "morphophonological" rules and "phonological" rules, the former dealing with the morphologically conditioned processes and the latter phonologically conditioned ones.

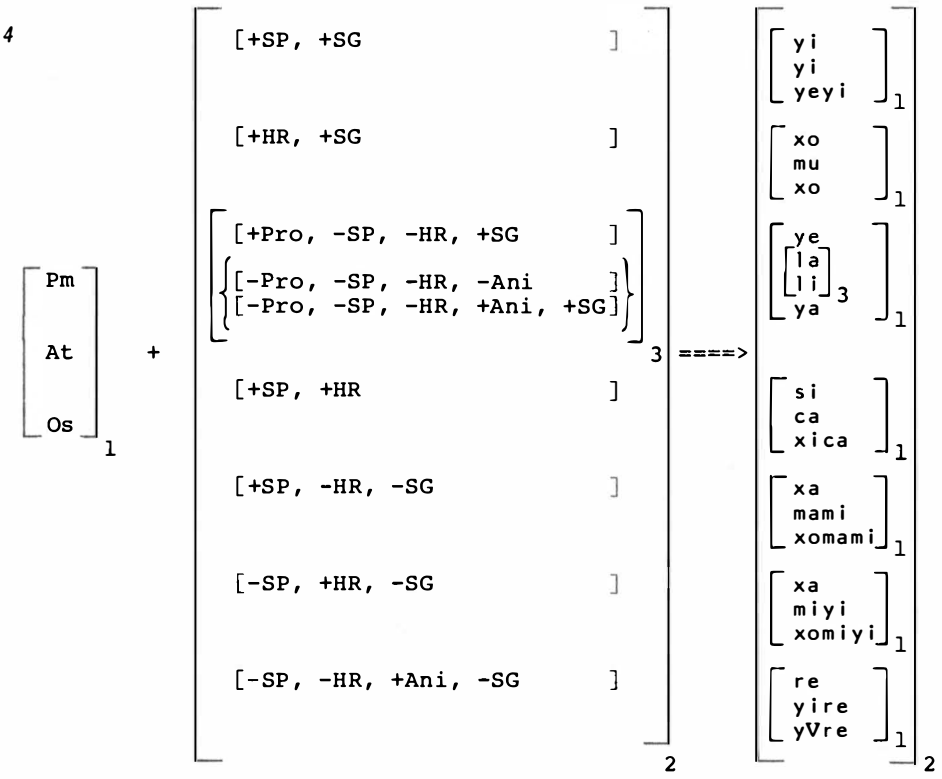
[3] In general, boundary symbols in generative grammar are introduced by rules or convention of the syntactic component (e.g. see Chomsky and Miller 1963:308; Matthews 1965: 266 *et seq.*; Chomsky and Halla 1968:12-14). In this study, I adopt the following convention, which has been motivated by various phonological behaviours of the syntactic classes presented:

#__ : N, V, Nus, Dm, Mv, Mn, Pm, TA, con, Vpr, Prp, fm
Num
__# : utterance final position
+__ : At, Os, DIR and other suffixes (e.g. +xili *'for'*)
__+ : prefixes (e.g. xa+ (causative marker))

handled, since they are rather to be specified in the lexicon.

3.6.2. *FEATURE REALISATION RULES*

PR 14



PR 14 derives all the base forms associated with three grammatical formatives **Pm**, **At**, and **Os** when these have copied the features of the related **NP** in accordance with *TRs 1* and *2*. A number of features are omitted in the above rule, because the omitted features are predictable according to a universal convention of redundancy (see for example Chomsky 1965:164-8). Thus, for example, [+SP, +SG] implies <-HR>. For detailed discussions concerning the motivation for *PR 14*, see 4.4.2.; 4.4.5.; 4.8.6.; 4.12.2. and 5.1. Incidentally, it should be noted in *PR 14* that non-animate plural nouns go with singular nouns in their syntactic behaviour, i.e. in their agreement with the related **Pm**, **At**, or **Os** particles.

(E 41) a1. Re buu doxo tèxtaa kalaa mè Saapan.

Pm *come* [+N, -Pro, -SP, -HR, +Ani, -SG] *those from Japan* [-Pro, -SP, -HR, +Ani, -SG]

'Those doctors came from Japan.'

a2. Ye buu doxo wayele kalaa mè Meriken.

Pm [-Pro, -SP, -HR, -Ani, -SG] [*plane*, +N, -Pro, -SP, -HR, -Ani, -SG]

'Those planes came from America.'

a3. Ye buu doxo yeliwici laay mè Moxmox.

Pm [-Pro, -SP, -HR, +Ani, +SG] [*child*, +N, -Pro, -SP, -HR, +Ani, +SG]

'That child came from Mogmog.'

b1. babiyoro-yire yaramata kawee

book At [-Pro, -SP, -HR, +Ani, -SG] [*people*, +N, -Pro, -SP, -HR, +Ani, -SG] *those*

'book about the people'

b2. babiyoro-li xalesiyaa kawee

At church

[..., -Ani, -SG] [..., -Ani, -SG]

'book about the churches'

PR 15 <+Prog> + $\begin{bmatrix} C_1(C_1)V_1(V_1)Z \\ C_1V_1C_2V_2 \end{bmatrix}$ ===> $\begin{bmatrix} C_1V_1C_1(C_1)V_1(V_1)Z \\ C_1V_1C_2C_1V_1C_2V_2 \end{bmatrix}$

/ #__ $\left\{ \begin{matrix} + \\ \# \end{matrix} \right\}$

RR 1 (see 4.14.) states that the lexical category **V** has either **+Prog** or **-Prog**, which means that any lexical item dominated by **V** must be assigned with the structural feature either positively or negatively. PR 15 gives the most general and productive types of "progressive" reduplication. Observe the following examples:

(E 42) ==> $C_1V_1C_1(C_1)V_1(V_1)Z$

suu	*'to stand'*	==>	susuu	*'to be standing'*
pugu	*'to fall'*	==>	pupugu	*'to be falling'*
ttaxace	*'to let free'*	==>	tattaxace	*'to be letting free'*
yegaage	*'to work'*	==>	yeyegaage	*'to be working'*

The process in (E 42) covers, in fact, most of the bases which can be reduplicated with a couple of small sets of exceptions (E 44 and E 45).

(E 43) ==> $C_1V_1C_2C_1V_1C_2V_2$

lutu	*'to jump'*	==>	lutlutu	*'to be jumping'*
loxo	*'to go'*	==>	loxloxo	*'to be going'*
pugu	*'to fall'*	==>	pugpugu	*'to be falling'*

The two processes specified in PR 15, overlapping as they do, thus make for divided usage with respect to bases of the $C_1V_1C_2V_2$ variety, such as the examples in (E 43). PR 15 does not apply, in principle, to the forms already reduplicated. Even in such base forms, examples are found on which PR 15 has operated.

(E 44)

susulu	*'to broil'*	:	susulu	*'to be broiling'*
mammale	*'to laugh'*	:	mammale	*'to be laughing'*
xėrxėru	*'to scratch'*	:	xėrxėru	*'to be scratching'*
rogrogo	*'to hear'*	:	rogrogo	*'to be hearing'*
ṁeṁee	*'to look for'*	:	ṁeṁṁeṁee	*'to be looking for'*
faxfaxa	*'to cough'*	:	fafaxfaxa	*'to be coughing'*

There is a small set of verbs which are subject to final reduplication in "progressive" aspect. No separate rule is developed to allow for this process, since such forms may better be given separate lexical entries in view of the extreme limitation in number.

(E 45) maxudu *'to move'* : maxudxudu
(along with mammaxudxudu)

maroo *'to sit'* : maroroo
(*mammaroroo)

PR 16 C_1 ==> C_1C_1 / #C_1V_1__V_1Z

where C_1 = a nasal, k or x

PR 16 doubles the indicated consonants following a reduplicated prefix.

(E 46) mogoyo *'to eat'* ==> *momogoyo ==> mommogoyo *'to be eating'*
mele *'to stay'* ==> *memele ==> memmele *'to be staying'*
ggase *'to breathe'* ==> gaggase *'to be breathing'*
kacapara *'to tell a lie'* ==> *kakacapara ==> kakkacapara *'to be telling a lie'*
kamaaxo *'to watch'* ==> *kakamaaxo ==> kakkamaaxo *'to be watching'*
xasi *'to carry'* ==> *xaxasi ==> *xaxxasi *'to be carrying'*
xa+mada *'to cook'* ==> *xaxa+mada ==> *xaxxa+mada *'to be cooking'*
xa+towase *'to destroy'* ==> *xaxa+towase ==> *xaxxa+towase *'to be destroying'*

PR 17 xVxx ==> kVkk

The cluster xx is an impossible sequence in Ulithian, which fact allows *PR 17* to be set up without any conditioning. When any word beginning with x undergoes an initial reduplication, PRs *15*, *16*, and *17* obligatorily apply.

(E 47) *xaxxasi ==> kakkasi *'to be carrying'*
*xaxxa+mada ==> kakka+mada *'to be cooking'*
*xaxxa+towase ==> kakka+towase *'to be destroying'*

Along with the above "progressive" reduplication, there is "intensifying" reduplication which applies to a limited set of +Adj verbs. No separate rule is formulated to deal with the latter in view of the lack of generality.

(E 48) pallege *'big'* : papallege *'to be growing big'*
palleglege *'very big, all big'*

taxiyata *'high'* : tataxiyata *'to be becoming high'*
taxiyatyata *'very high'*

3.6.3. *PHONETIC RULES*

(1) *Morphologically conditioned*

PR 18 $\begin{bmatrix} \text{sa} \\ \text{saab} \end{bmatrix} \Longrightarrow \begin{bmatrix} \text{ya} \\ \text{yaab} \end{bmatrix} \; / \; [\text{si}]_{\text{Pm}} \; \#\begin{bmatrix} \_\_ \end{bmatrix} \; \text{TA}$

Tense-aspect particles (TA) **sa** and **saab** undergo a dissimilation after predication marker **si** *'we(incl)'*.

(E 49) **si #sa #loxo ==> si #ya #loxo**
'Let's go.'

si #saab #xola + ya +daxe == si #yaab #xola+ya +daxe
arrive it up
'We would barely arrive there.'

PR 19 (OP) $\begin{bmatrix} \text{u} \\ \text{i} \end{bmatrix} \Longrightarrow \begin{bmatrix} \text{ė} \\ \text{e} \end{bmatrix} \; / \; \_\_ + \begin{bmatrix} \sim\text{yi} \\ \sim\text{yire} \end{bmatrix}_{\text{At}} \; \#$

Base final single **u** and **i** are optionally changed to **ė** and **e** respectively before all the attributive suffixes except for **yi** *'my'* and **yire** *'their'* which share the common feature **yi-**.

(E 50) **fėėru + li ==> fėėrė + li**
making of

barexi + li ==> barexe + li
hot(taste)

weri + li ==> were + li
seeing

ciifeli + li ==> ciifele + li
nail

taxuru +	**mu**	==> **taxurė +**	**mu**	*'your'*
back	**la**		**la**	*'his'*
	li		**li**	*'of'*
	ca		**ca**	*'our(incl)'*
	mami		**mami**	*'our(excl)'*
	miyi		**miyi**	*'your(pl)'*

taxuru + { **yi** ==> ***taxurė + yi** ; **yire** ==> ***taxurė + yire** }

PR 20 $\text{V}_1 + [\text{ya}]_{\text{Os}} \Longrightarrow \begin{cases} \text{V}_1\text{V}_1 \\ \text{a}^{\text{c}}\,\text{a}^{\text{c}} \end{cases} \; / \; \_\_ \; +\text{DIR}$

PR 20 says that before a directional (Dr or Dad) a single stem vowel and the following object suffix **ya** (3rd sg.) are assimilated in two ways: (1) the first vowel to the second, and (2) the second vowel to the first.

In either case, the semivowel y is dropped. By virtue of this two-way assimilation, only those transitive verbs which have the suffix ya have two stem vowels in free variation before a directional, one of them necessarily being aa.

(E 51) fidi + ya + loxo ==> {fidii / fida< a<} + loxo
to-go-with him thither (DIR)

meri + ya + doxo ==> {ṁerii / ṁera< a<} + doxo
to search hither

suuxu + ya + daxe ==> {suuxuu / suuxa< a<} + daxe
to open up

xa + molo + ya + loxo ==> xa + {moloo / mola< a<} + loxo
tr *finished*
'to finish up'

yalda + ya + loxo ==> yalda< a< + loxo
to open

The proposed treatment (*PR 20*) accounts for the lack of lengthening in the following examples:

(E 52) meri + doxo + ya ==> {*ṁerii / *ṁera< a<} + doxo + ya
to search it

molo + loxo ==> {*moloo / *mola< a<} + loxo
to be finished

PR 21 awu ==> ȯȯ / __ + [~yi / ~yire]$_{At}$

The sequence awu assimilates to a monophthongal long vowel ȯȯ when followed by a suffix other than yi *'my'* and yire *'their'*.

(E 53) bawu + li ==> bȯȯ + li
fishing pole of
Cf. ind. form [ɓʷa:w]

fawu + xili + ya ==> fȯȯ + xili + ya
to row for him

lawu + mu ==> lȯȯ + mu
child

yawu + li ==> yȯȯ + li
string

ccawu + li ==> ccȯȯ + li
heavy

lawu + li ==> lȯȯ + li
wave

but: mawulu ==> *mȯȯlu
war

ttawulu ==> *ttȯȯlu
to shout

lawu + yi ==> *lȯȯ + yi
child *my*

lawu + yire ==> *lȯȯ + yire
their

Cf. lawu + mami ==> lȯȯ + mami
our(excl)

PR 22 (OB) (OP) 1(L)V ==> ∅ /#CV__+ $\begin{bmatrix} li \\ la \end{bmatrix}_{At}$ #

This rule applies obligatorily to one class of such bases, optionally to another, and never to a third, which fact should be indicated in respective lexical entries. The distinction between these three classes is not phonologically stateable.

(E 54) a. [+PR 22]

xala + li ==> xa + li ([xalˁ])
food
(Cl) la ==> xa + la ([xɑlˀ])

xilLi + li ==> xi + li ([xilˁ])
skin
(PAN:kulit) la ==> xi + la ([xilˁ])

cale + li ==> ca + li ([calˁ])
(PAN: /dD/anum)

tale + li ==> ta + li ([talˁ])
rope
(PAN:talih)

ṁale + li ==> ṁa + li ([ṁalˁ])
man

male + li ==> ma + li ([malʿ])
bird,animal

b. [+PR 22]

mele + li ==> {me, mele} + li
sailing rope

wolo + li ==> {wo, wolo} + li
turtle

molo + li ==> {mo, molo} + li
fish spec.

bole + li ==> {bo, bolo} + li
ground

c. [-PR 22]

fale + li ==> fale + li
priest

Here belong fele *'goodness'*, dili *'change'*, dulu *'torchlight'* and many others.

PR 22 does not apply if the preceding environment contains a double consonant (e.g. bbulu *'flame'*) or if the part to be dropped contains a geminate l (e.g. bulle *'heart'*).

PR 23 e ==> i / u # [y__xe]$_{Num}$

This rule applies specifically to numerative compounds, i.e. numerative stems ending in u affects the e to i in the following numerative multiple yexe *'10'*.

(E 55) sulu # yexe ==> sulu # yixe
3

fisu # yexe ==> fisu # yixe
7

wȧlu # yexe ==> ẇalu # yixe
8

PR 24 a ==> [ė, o, e] / u + [{f__se, m__le}, {y__le, y__ye}, y__fe]$_{Nucl}$

Those numerative stems which end in u are responsible for the change in the first vowel in the following numerative classifier:

(E 56) sulu + fase ==> sulu + fèse
3 round ob.

sulu + male ==> sulu + mèle
animate

fisu + yale ==> fisu + yole
line

fisu + yaye ==> fisu + yoye
long ob.

wàlu + yafe ==> wàlu + yefe
8 bundle

wàlu + fase ==> wàlu + fèse

PR 25 a ==> e / $\begin{bmatrix} \text{se} \\ \text{faay} \\ \text{wòle} \end{bmatrix}_{\text{Nus}}$ + $[\text{y}\_\text{le}]_{\text{Nucl}}$

The three numerative stems given change a to e in yale *'line'*.

(E 57) se + yale ==> se + yele
1

faay + yale ==> faay + yele
4

wòle + yale ==> wòle + yele
6

For numerative paradigms, see 3.6.4.

PR 26 + ==> Ø / #Z__Z $\begin{Bmatrix} + \\ \# \end{Bmatrix}$

PR 26 removes morpheme boundary symbols cyclically from left to right.

(E 58) xa + duuduu + xica ==> xaduuduu + xica ==> xaduuduu xica
tr *to bathe us(incl)*

(2) *Phonologically Conditioned*

The following set of rules (except for PRs *41*, *44* and *45*) is regarded as purely phonological in that no status of morphemes or phrase markers is relevant in the environment in which a particular phonetic change takes place. Thus rules will be applied within #__# and, after # is replaced by the phonetic juncture //, within //__//. In PR *41*, however, the process of compensatory lengthening is applied only when the CVC(v) forms are

dominated by Nm. Another exception (*PR 44*) states that the word boundary # is replaced not by // but by Ø in certain syntactic environments (e.g. Pm__TA). This rule, in spite of the morphological conditioning, cannot be ordered earlier, since a number of changes have to be effected before # is replaced by // or Ø. The third exception (*PR 45*) contains grammatical formatives in the environment.

PR 27 $\left\{\begin{matrix} e \\ \dot{e} \\ a \end{matrix}\right\}$ ==> V_1 / __ (#) C V_1 Z#
[+back][+back]

$\left\{\begin{matrix} e \\ \dot{e} \\ a \end{matrix}\right\}$ assimilates (obligatorily in most instances) to the vowel in the following syllable, whether there is a word boundary or not, if that vowel is back and preceded by a single [+back] consonant (k, x, g, b, ṁ, or w).

(E 59) se + xaye ==> se xaye == sa xaye
1 tree-like object PR26

se # garase ==> sa#garase; ruwė + wo ==> ruwowo
1000 *2 gen.ob.*

se + gȯlo ==> so gȯlo; lima + wo ==> limowo
bundle of ten *5*

se # buxuya ==> su#buxuya; diwa + wo ==> diwowo
100 *9*

se + -xufede ==> suxufede
a little

re # xasi + ya ==> ra # xasi ya
they carry it

ye # xagi + ya ==> ya # xagi ya
he eats it

te # xula + ya ==> tu # xula ya
not know it

te # xola + ya ==> to # xola ya
reach it

dabe + xo ==> dabo xo
to follow you

Exception: se + wo ==> *so wo

PR 28 a ===> $\begin{bmatrix} \dot{e} \\ \begin{bmatrix} o \\ \dot{e} \end{bmatrix}_2 \end{bmatrix}_1 \Big/ \begin{bmatrix} Vy \\ \tilde{a} \begin{bmatrix} P \\ \tilde{P} \end{bmatrix}_2 \end{bmatrix}_1$ __mu #

where P = p, m, B (B = b, ṁ, w), single or double
and $\tilde{P}$ = any other C, single or double
and $\tilde{a}$ = any V other than a

The main purpose of this rule is to deal with the stem vowel alternation (basic vowel a) before the morpheme mu (attributive suffix *'your'*), but it is also assumed that the rule applies to any other sound combinations if the condition is met.

(E 60) yuya + mu ==> yuya mu ==> yuyė mu
neck PR26

siya + mu ==> siyė mu
belly

xa + bbawo + ya + mu ==> xa bbawo yė mu
tr *stink* *it*
'what you made stink'

dipa + mu ==> dipo mu
feeling

lewa + mu ==> lewo mu
tongue

lema + mu ==> lemo mu
drinking object

talega + mu ==> talegė mu
ear

bulla + mu ==> bullė mu
heart

ciṁa + mu ==> ciṁo mu
head

If a is in the preceding syllable, the stem vowel a remains unchanged.

(E 61) yawa + mu ==> yawa mu
mouth

tapa + mu ==> tapa mu
cheek

waxa + mu ==> waxa mu
vein

yafara + mu ==> yafara mu
shoulder

PR 29 ayire ==> ååre /C__#

This rule states that a single a and yi in yire (attributive suffix *'their'*) are mutually assimilated, yielding åå [æ:]. It is assumed that PR 29 can be applied generally, since no combination like [ayir#] is found on the surface.

(E 62) mata + yire ==> mata yire == matååre
eye *their* PR26

siya + yire ==> siyååre
belly

paaga- + yire ==> paagååre
all

lepada + yire ==> lepadååre
between

xala + yire ==> xalååre
food

PR 30 $V_1(V_1)$ $\begin{Bmatrix} \text{yire} \\ \text{yVre} \end{Bmatrix}$ ==> V_1V_1re /__#

All single or geminate vowels, except for the single a (PR 29), assimilate mutually with yi in yire *'their'* and yV in yVre *'them (object suffix)'*, the output being the lengthening of the first vowels without change in quality.

(E 63) waa + yire ==> waa yire ==> waare
canoe *their* PR26

cii + yire ==> ciire
bone

farowaa + yire ==> farowaare
lung

yiree + yire ==> yireere
at

båå + yire ==> båare
floating

yiṁòò + yire ==> yiṁòòre
front

bisi- + yire ==> bisiir
brother

xamare + yire ==> xamareere
sweetheart

soxo + yire ==> soxoore
stick

mata + yVre ==> mataare
to lead them

supi + yVre ==> supiire
to cut

lawulu + yVre ==> lawuluure
to have as child

lli + yVre ==> lliire
to kill

xa + suu + yVre ==> xasuure
tr *stand*

PR 31 a ===> $\begin{bmatrix} e \\ \\ \\ \dot{e} \end{bmatrix} / \begin{bmatrix} \left\{ \begin{matrix} Vy \\ \left\{ \begin{matrix} i \\ e \end{matrix} \right\} C \end{matrix} \right\} \\ \left\{ \begin{matrix} \dot{e} \\ o \\ u \end{matrix} \right\} C \end{bmatrix} \_\_\_ \tilde{B}\ i$

where $\tilde{B}$ = any consonant other than b, ṁ, w
and C = any consonant other than y, single or double

This rule could not be incorporated with *PR 28*, since *PR 29* must be applied before this rule. The alternation of single a, as specified in *PR 31*, may best be illustrated by the variation of the stem vowels before attributive suffixes beginning with C i.

(E 64) lewa + yi ==> lewa yi ==> lewe yi
tongue my PR26

xa + faxola+ ya+ yi ==> xafaxolaye yi
tr *grow it*
'what I have grown'

wuba + li ==> wubė li
chest of

yida + li ==> yide li
name

yiṁa + li ==> yiṁe li
house

bulla + li ==> bullė li
heart

xota + miyi ==> xotė miyi
covering your(pl) object

yulėėga + miyi ==> yulėėgė miyi
pillow

xa + madafa + ya + miyi == xamadafaye miyi
tr *clear it*

PR 32 $\begin{bmatrix} a \\ aa \end{bmatrix}_1$ ===> $\begin{bmatrix} a^{\langle} \\ a^{\langle} a^{\langle} \end{bmatrix}_1$ / $\begin{bmatrix} \{i \\ e\} \\ \{a \\ \dot{o} \\ \#\} \end{bmatrix}_2$ $\tilde{B}$ __ C $\begin{bmatrix} \# \\ \{i \\ e \\ \dot{e}\} \end{bmatrix}_2$

where $\tilde{B}$ is any consonant (single or double) other than b, ṁ, w
and C is any consonant, single or double

As has been noted in the previous rules, a, among all the vowels, is the most obviously responsive to the environment just as l is among the consonants. Not only does a change to some other phonemes, but, strictly speaking, there are three distinguishable allophonic variants within the range of the phoneme: fronted, medial, and retracted. However, only the fronted one is given by the rule as against the rest, since on the surface the contrast is always between relatively fronted and relatively retracted, with the medial one occurring only in #C(C)__# where the fronted or retracted one never occurs.

(E 65) yilaa ==> yila$^{\langle}$a$^{\langle}$; made ==> ma$^{\langle}$de
that *sated*

belaa ==> bela$^{\langle}$a$^{\langle}$; capPi ==> ca$^{\langle}$pPi
shoes *ancestor*

waa + li ==> wa$^{\langle}$a$^{\langle}$ li; balle ==> ba$^{\langle}$lle
canoe of *inspection*

balla + li ==> balla' li; tama + li ==> tama' li
stuck

fasa + yi ==> fasa' yi; xa + yale ==> xaya'le
penis *my* tr *fly*

fadė + li ==> fa'dė li
eyebrow

PR 33 aya ==> a'a' / C __ $\left\{\begin{matrix}\#\\C\end{matrix}\right\}$

The sequence aya is reduced to a'a'[a:] regardless of the morphemic status of the bases involved. The fronting of the vowel is viewed as the result of the dropped high front semi-vowel.

(E 66) lima + yale ==> lima yale == lima'a'le
5 *line* PR26
(Nucl)

diwa + yale ==> diwa'a'le
9

lima + yaye ==> lima'a'ye
long-slender object

diwa + yafe ==> diwa'a'fe
string-bound bundle

xarepa + ya ==> xarepa'a'
to approach it
(Os)

yalda + ya ==> yalda'a'
to open it

xa + madafa + ya ==> xamadafa'a'
tr *clear* *it*
'to explain'

xula + ya ==> xula'a'
to know it

By virtue of PR 33, it has become clear why on the surface [y] *'it'* never appears after a while it optionally remains after all the other vowels. In the latter case, [y] is deleted only optionally (PR 45) after the final vowel (i.e. a in ya *'it'*) has been dropped.

(E 67) tuxu + ya ==> [tugu(y)]
to hit it

fèèru + ya ==> [fə:ru(y)]
to make it

but: xola + ya ==> { *[xolɑ(y)] / [xola] }
to catch

It should be noted that if the sequence aya has undergone any change (e.g. ==> aye) in accordance with *PR 31*, it cannot be placed as an input to *PR 33*. Compare the following:

(E 68) xa + madafa + ya + yi ==> xamadafaye yi
tr *clear it my PR31*
'what I explained'

xa + madafa + ya ==> xamadafaᶜaᶜ
PR33

PR 34 $\begin{bmatrix} o \\ Vq \end{bmatrix}$ ===> $\begin{bmatrix} o^{\wedge} \\ Vq^{\wedge} \end{bmatrix}$ / __ C i

where Vq = ee, ȧȧ, ȯȯ, oo

The vowels on the right of *PR 34* may have each three allophonic variants: raised, neutral, and lowered or retracted. However, only raised variants are given in the rule as against the unraised for the reason similar to that discussed under *PR 32*. So far no convincing contrast has been found in stem final position between single o and ȯ on the one hand and single e and ȧ or ȧ and a on the other. Therefore, it is tentatively assumed that single ȧ and ȯ do not appear in the said position in any base form. Incidentally, the above fact is partially indicative of the possibility of reducing the number of the Ulithian vowel phonemes to a significant extent should more intensive study be made.

PR 34 is formulated with the main object of dealing with alternation before attributive suffixes. As discussed earlier, the alternation manifests some surface contrasts.

(E 69) soxo + li ==> soxo li == soxo^ li
stick of PR26
(Cf. soxo + la ==> soxoᵛ la)
his

mago + li ==> mago^ li
forehead

xologo + li ==> xologo^ li
body

loso + yi ==> loso^ yi
boil

bee + li ==> be^e^ li
fortune telling

bàà + li ==> bà^à^ li
floating

bbòò + li ==> bbò^ò^ li
smelly

coo + li ==> co^o^ li
copra

còò + li ==> cò^ò^ li
people

PR 35 $\begin{bmatrix} i \\ o \end{bmatrix}$ ==> u / $\begin{bmatrix} C \_\_ xo \\ ux \_\_ \end{bmatrix}$

Although PR 35 is developed to deal in particular with vowel alternations associated with object suffix morphemes such as xo *'you'*, xomami *'we (excl)'*, and xomiyi *'you(pl)'*, it may be considered as general phonological rule in that, on the surface, combinations like [igo], [ugo] are unnatural in that no examples thereof have been found.

(E 70) fisexi + xo ==> fisexi xo ==> fisexu xo ==> fisexu xu
to burn PR26

lawulu + xo ==> lawulu xu
to have as child

lli + xo ==> llu xo ==> llu xu
to kill

ffėrėxu + xomami ==> ffėrėxu xumami
to bind

dorofi + xomami ==> dorofu xomami ==> dorofu xumami
to catch

xasi + xomiyi ==> xasu xomiyi ==> xasu xumiyi
to carry

PR 36 V_1 ==> V_1˙ / __xo#

where $V_1 \neq$ u, ė

All single vowels, with the exception of u and ė (and i which does not occur here), are lengthened by a mora before final xo. This lengthening is purely phonological, since it occurs regardless of the status of xo. Apparently it is caused by the devoicing and shortening of the vowel following (see *PR 40*). The exception of u and ė may be ascribed to their inherent high quality. No lengthening is observable before nonfinal xo.

(E 71) tape + xo ==> tape xo ==> tape˙ xo
to need you PR26

ffaxo + xo ==> ffaxo˙xo
to pity

cugaxo ==> cuga˙ xo
noisy

buraxo ==> bura˙ xo
smoke

but: weri + xo ==> weru xo ==> weru xu ==> *weru˙ xu
to see

xa + ddėlė + xo ==> xaddėlė xo ==> *xaddėlė˙ xo
tr *shine*

limese + xomami ==> limese xomami ==> *limese˙ xomami
to kill us(excl)
to death
(Cf. limese + xo ==> limese˙ xo)

PR 37 l ==> n / nV__

(E 72) sukuunu + li ==> sukuunu li ==> sukuunu ni
school *PR26*

moniyama + li ==> moniyana ni
devil

pinsini + li ==> pinsini ni
gasoline

kaapini + li ==> kaapini ni
captain

PR 38 $\begin{bmatrix} l \\ ll \end{bmatrix} \Longrightarrow \begin{bmatrix} l^{<} \\ l^{<}\, l^{<} \end{bmatrix} \;/\; \begin{bmatrix} Vz \\ \{a, o, \#\} \end{bmatrix} \_\_ \; (C) \; \begin{bmatrix} Z \\ Vz \end{bmatrix}$

where Vz = i, e, ȧ, u, ė ($\tilde{V}z$ = o, ȯ, a)
and Z = any segment including zero

l is the consonant most susceptible to environmental influences, with a wide allophonic variation ranging from front to back. The variation, however, may be dichotomised into relatively "fronted" and relatively "retracted" in view of its surface contrast as well as its influence on the vowel a. *PR 38* derives the "fronted" variant, while the "retracted" one occurs elsewhere.

(E 73) le ==> l˂e; belaa ==> bela˂a˂ ==> bel˂a˂a˂
TA(immed.fut.) *shoes* *PR32*

meldowa ==> mel˂dowa
west

waa + li ==> waa li ==> wa˂a˂ li ==> wa˂a˂ l˂i
canoe *of* *PR26* *PR32*

balle + li ==> ba˂lle li ==> ba˂l˂l˂e l˂i
inspection

balla + li ==> balla li ==> bal l a˂ l˂i
stuck

soxo + li ==> soxo^ li ==> soxo^ l˂i
stick *PR34*

la + li ==> la˂li ==> l a˂l˂i
in *PR32*

PR 39 m ==> ṁ / $\left\{\begin{array}{l} \_\_u\# \\ Vj\ \_\_\left\{\begin{array}{l} u \\ o \\ \dot{o} \end{array}\right\} \\ \_\_\ V\ \dot{m} \end{array}\right\}$

where Vj = a, o, (ȯ), u, ė

PR 39 states that m changes to velarised ṁ in the given positions in which no contrast has been observed between the two nasal stops. It seems that in all the other positions, the two sounds contrast. Before nonfinal u, the contrast is hard to observe, since most of the occurrences are phonetically [m^w] (e.g. ṁukuu [m^{w}uku] *'to tremble'*, ṁusu [m^{w}us] *'to bump'*, ṁudara [m^{w}uđar] *'to spread'*). The only example of [m] found is mulu *'a kind of insect'* in which the first vowel has fronted quality (i.e. [mü:l], [mülül] *'... of'*).

(E 74) mu# ==> ṁu#
your

sumu ==> suṁu
water well

wumu ==> wum̀u
to cook underground

lumu ==> lum̀u
moss

damumuu ==> dam̀um̀uu
wild

lamo ==> lam̀o
lagoon, mosquito

kamudiidii ==> kam̀udiidi
beautiful

kòòkomo ==> kòòkom̀o
playing

cèm̀òlo ==> cèm̀òlo
pig pen

lema- + mu ==> lemo mu ==> lemom̀u ==> lem̀om̀u
drinking ob. *PR28*

tama- + mu ==> tamo mu ==> tamom̀u ==> tam̀om̀u
father

PR 40

$$\left[\begin{bmatrix}\text{Vq}\\ \tilde{\text{Vq}}\end{bmatrix}_1 \text{ V}\right]_2 \text{ ===> } \left[\begin{bmatrix}\text{[-voiced]}\\ \emptyset\end{bmatrix}_1 \quad \emptyset \;/\; \begin{matrix}\text{Zx}\ \_\_\ \#\\ \text{Z}\tilde{\text{x}}\ \_\_\ \#\end{matrix}\right]_2$$

where Vq = $\begin{bmatrix}\text{+vocalic}\\ \text{+back}\end{bmatrix}$, i.e. a, ò, o, u
and $\tilde{\text{Vq}}$ = any V other than Vq
and V = any vowel
and Zx and Z$\tilde{\text{x}}$ each contain at least a syllable
and $\tilde{\text{x}}$ = any V or C other than x

PR 40 is interpreted as saying that final vowels are dropped except after x where back vowels are only devoiced while non-back vowels are dropped. The dropping or devoicing of a vowel is not effected in a single syllable word (see the condition of Zx and Z$\tilde{\text{x}}$). Thus, for example, xo *'you*(Pm)' does not undergo devoicing while xo *'you*(Os)' does.

(E 75) a. devoicing of back vowels

kèlòxo ==> kèlò̥xo ==> kèlò̥xo
hungry *PR36*

mėgaaxu ==> mėgaaxU
clothes

bulaxa ==> bulaxA
taro

xa + yale + xo ==> xayale xo ==> xayaʿlʿeʿxo ==> xayaʿlʿeʿx0
tr *to fly you* PR26 PR32 PR36 PR38

b. dropping of vowels

ffaxe ==> ffaʿxe ==> ffaʿx
to look for PR32

yixi ==> yix
fish

tėxė ==> tex
yam

ccaa + li ==> ccaa li ==> ccaʿaʿlʿi ==> ccaʿaʿlʿ
blood

xamare + la ==> xamare la ==> xamaʿre la ==> xamaʿrel
sweetheart his

yase + yire ==> yaseere ==> yaʿseere ==> yaʿseer
liver their PR30

lewa + mu ==> lewo mu ==> lewo ṁu ==> lewoṁ
tongue your PR28 PR39

moniyana + li ==> moniyanaʿni ==> moniyanaʿn
devil PR32 PR37

cca ==> cca; waa ==> wa
blood *canoe*

PR 41 CVC(v) ===> CVVC(v) / #[___]$_{Nm}$#

where Nm is a syntactic category (a low level noun phrase) and v = voiceless V

This process of compensatory lengthening is limited strictly to CVC(v) forms under the domination of Nm (see BRs *17* and *18*). Thus, first of all, stems of the form CVCC or CCVC as well as CV or CCV are excluded.

(E 76) xilLi ==> xilL ==> *xiilL; loyYo ==> loyY ==> *looyY
skin PR40 *perfume*

xaddu ==> xadd ==> *xaadd
finger

ffisi ==> ffis ==> *ffiis
lightning

daa ==> da ==> *daa
intestine

Secondly, forms which are not dominated by Nm are excluded.

(E 77) cox ==> *coox; wol ==> *wool
just *also*
(Int) (Mv)

lapa ==> lap ==> *laap; doxo ==> dox0 ==> *doox0
big *hither*
(V) (Dr)

gali ==> gal ==> *gaal
(Vpr)*to*

yafa ==> yaf ==> *yaaf (Cf. yafa ==> yaf ==> yaaf)
to swim *swimming*
(V) (N)

pixi ==> pix ==> *piix (Cf. pixi ==> pix ==> piix)
to play ball *ball*
(V) (N)

Thirdly, even when a form is CVC(v) and dominated by Nm, it still may not be subject to lengthening if it occurs with some other form(s) within the Nm.

(E 78) [se + male]$_{Nm}$ ==> se male ==> se maʿlʿ ==> *se maʿaʿlʿ
1 *animate*
(Nucl)

[fase # pallege]$_{Nm}$ ==> faʿse # paʿlʿlʿege ==> faʿs #
stone *big*

paʿlʿlʿeg ==> *faʿaʿs # paʿlʿlʿeg
(Cf. fase ==> faʿse ==> faʿs ==> faʿaʿs)

Examples of the forms which undergo the process in *PR 41* follow.

(E 79) mago ==> mag ==> maag; Cuxu ==> cuxU ==> cuuxU
forehead *Truk*

xapi ==> xaʿpi ==> xaʿp ==> xaʿaʿp
hip

rebe ==> reb ==> reeb
beard

liba ==> lib ==> liib
hole

yiṁa ==> yiṁ ==> yiiṁ
house

PR 42 C ==> Ø /C__#

This rule drops the final consonant if it is preceded by another consonant. This is applicable not only to geminate consonants but to those capital letters which have been introduced to block compensatory lengthening.

(E 80) diddi ==> didd ==> did
sewing PR40

xilLi ==> xilL ==> xil
skin

páwWu ==> páwW ==> páw
arm

capPi ==> caʿpPi ==> caʿpP ==> caʿp
ancestor PR32

loyYo ==> loyY ==> loy
perfume

bulla ==> bull ==> bul
heart

Since rules are ordered, the output of *PR 42* may not be placed as the input to *PR 41* in spite of the condition being met.

PR 43 Cc ===> Ø

where Cc stands for a capital letter consonant.

(E 81) páwWu + mami ==> páwWu maʿm ==> páwumaʿm
arm

capPi + mu ==> capPi ṁ ==> caʿpiṁ
ancestor

PR 44 # ===> ⌈ ø / { {Pm, TA} __ TA ; N__(Adj)__Dm ; __Num } ⌉ // elsewhere

This rule states that word-boundary symbol # is replaced by the phonological juncture // (characterised by a short pause) except in the syntactic environment given, where no juncture appears. Further rules will be developed in relation to this juncture.

(E 82) yaramata #wee #yilaa #ye #sa #loxo #cox
person the fm *he* ta *go just*

==> yaramat #we #yilaʿ #ye #sa #lox0 #cox

==> yaramat we // yilaʿ //ye sa //lox0//cox

PR 45 ⌈ w ⌉ ===> ø / ⌈ { u__y ; u__C ; (__u) } { (ZC) __ (C) ; V₁ __ V₁ ; V [__]Os// ; Vh[__]At// ; __{i, e} } ⌉

where Z = zero, a C, or a V and ZC ≠ uw
and Vh = i, u, e, ė
and Os = object suffix; At = non-attributive suffix

The semivowel w is considerably resistant to environmental influences as compared to y. When the two semivowels clash, y is dropped except in the sequence uwy, in which case w is dropped.

(E 83) a. dropping of w

(OB) ruwė # yexe ==> ruw # yex ==> ruw yex ==> ru yex
2 10 PR40

(OP) ruwė # garase ==> ruw # garaʿs ==> ru(w) garaʿs
1000

wucu ==> wuc ==> wuuc ==> (w)uuc
banana

Cf. luwa ==> luw ==> *lu
surprised
(V)

b. dropping of y

(OB) lima # yexe ==> lim # yex ==> lim yex ==> limex
5 *10*

faay + wo ==> faay wo ==> faay w ==> faaw
4 Nucl
(general ob.)

loyYo + li ==> loyYo li ==> loyYo^l ==> loyo^l ==> loo^l
perfume of

se # yexe ==> se yex ==> seex
1 *10*

senseye + li ==> senseyel ==> senseel
teacher

teye + doxo ==> teye doxo ==> teye dox0 ==> teedox0
to gather hither

(OP) xusu + ya ==> xusu ya ==> xusuy ==> xusu(y)
to bite it

dabe + ya ==> dabe ya ==> dabey ==> dabe(y)
to follow

faxo + ya ==> faxo ya ==> faxoy ==> faxo(y)
to miss

senseye ==> sensey ==> sense(y)
teacher

fuluya ==> fuluy ==> fulu(y)
island

pėyė ==> pėy ==> pė(y)
to be empty

yiiy ==> (y)ii(y)
he(Pro)

ye ==> (y)e
he(Pm)

It should be noticed that attributive suffix yi [y] *'I'* does not drop, while object suffix ya [y] may. In other instances, the optional dropping of final [y] is allowed only when the preceding vowel is one of the

four relatively high vowels (i, e, ė, u).

PR 46 u ==> i / __ C $\left\{\begin{matrix}\text{i}\\ \text{e}\end{matrix}\right\}$ x

(E 84) ruwė # yexe ==> ruw # yex ==> ruw yex ==> ru yex ==> riyex
2 10

sulu # yexe ==> sulu # yixe ==> sul yix ==> sulix ==> silix

PR 47 $\left\{\begin{matrix}\text{i}\\ \text{e}\\ \text{o}\\ \dot{\text{e}}\end{matrix}\right\}$ ===> u / // B __ C $\left\{\begin{matrix}\text{i}\\ \text{u}\end{matrix}\right\}$
$\left(\begin{bmatrix}+\text{ant}\\ +\text{high}\\ +\text{back}\end{bmatrix}\right)$ $\left(\begin{bmatrix}+\text{voc}\\ +\text{high}\end{bmatrix}\right)$

(E 85) ṁiri + li ==> ṁiri li ==> ṁiril ==> ṁuril
after

becikkara ==> becikkar ==> bucikkar
fever, hot

weri + ya ==> weri ya ==> weriy ==> weri(y) ==> wuri(y)
see it

xumocu + ya ==> xumocu ya ==> xuṁocuy ==> xuṁocu(y) ==> xuṁucu(y)
grab

PR 48 V ===> $\begin{bmatrix}\emptyset\\ \dot{\imath}\end{bmatrix}_2$ / $\left[\left[\begin{matrix}\text{V} & \left\{\begin{matrix}\text{N}\\ \text{L}\end{matrix}\right\}\\ \text{V}_1 & \left\{\begin{matrix}\tilde{\text{N}}\\ \tilde{\text{L}}\end{matrix}\right\}\end{matrix}\right]_1 \text{ C } \begin{bmatrix}\text{V}\\ \text{V}_2\end{bmatrix}_1\right]_2$

where N = ṁ, n, m, g; L = l
$\dot{\imath}$ = high central unrounded glide
$\text{V} \neq \text{V}_1 \left\{\begin{matrix}\neq\\ =\end{matrix}\right\} \text{V}_2$

In order to maintain the phonetic and structural equilibrium, such forces as compensatory lengthening, excrescent vowel insertion, vowel reduction, etc. are constantly in operation. The above rule deals with vowel reduction in non-junctural positions, which process is conspicuous in speech of normal speed. Three syllables are the minimum requirement for the application of this rule. When the single vowel to be reduced is preceded by a nasal or l, the reduction seems almost complete. In the case of non-nasal and non-l, the reduction, which is incomplete, is applicable only where the neighbouring vowels are dissimilar.

(E 86) xa + ṁobu + ya ==> xaṁobu(y) ==> xaṁbu(y)
tr *to duck him*

yagasi + ya ==> yagasi(y) ==> yagsi(y)
touch it

cagaxe + li ==> cagaxe li ==> caga$^{\varsigma}$xel ==> cagxel
hanging of

xalaxa + ya + diye ==> xalaxa$^{\varsigma}$a$^{\varsigma}$di(y) ==> xalxa$^{\varsigma}$a$^{\varsigma}$di(y)
to suspend it down

xareta + li ==> xar†ta$^{\varsigma}$l
end of

xapedi + ya ==> xap†di(y)
to wash with copra oil

wuxedi + ya ==> wux†di(y)
to turn over

dipali + ya ==> dip†li(y)
to like

xa#be#le ==> xa be le ==> xabl$^{\varsigma}$e
we will (excl)

xab̀le + ya ==> xab̀le ya ==> xab̀le(y) ==> xable(y)
to miss it

The process of vowel reduction is strong in comparison with the opposite process of excrescent vowel insertion, but one instance in which the latter process is particularly noticeable is in the environment of $V_1C\_\_CV_1$ where the excrescent vowel V_1 is normally inserted.

(E 87) [ṁale # lapa] ==> ṁa$^{\varsigma}$l # lap ==> ṁa$^{\varsigma}$lalap
man big Nm
'old man'

yaramata # laa ==> yaramat # la ==> yaramatala
person that

Even here, vowel reduction operates: yaramatala ==> yaramtala. When reduction is incomplete, the contrast between double and single consonants before the reduced vowel is maintained.

(E 88) xa + pisi + ya ==> yap†si(y)
tr *to launch it*

xa + ppisi + ya ==> xapp†si(y)
float up from bottom

The vowel reduction process applies even across phonetic juncture, if the speaker speaks so fast that the juncture is eliminated.

(E 89) xo #sa #la #ggata #ye ==> xo sa //la //ggat //ye
you ta *become hurry and*
'You were in such a hurry!'

==> xo sal̇//ggat e

xa #si #ciil #kåkkååta #faa ==> xas //ciil//kåkkååtafa
we we still doing-what which
(Pro-incl)
'What are we still doing?'

PR 49 mė ==> m / __ (if //==> Ø) [i]

This rule is mainly related to the preposition mė *'from'* and the following noun which begins with [i] (yi). That is, if the phonetic juncture // is removed in a relatively fast speech, mė loses its vowel.

(E 90) mė # yiiyaa ==> mė // iiya ==> m(//==>Ø)iiya
where

mė # yiiyage ==> mė // iiyaʿg ==> miiyaʿg
there

mė # yixaa ==> mixa
here

mė # yiree + la ==> mireel
at him

mė # yipėlė ==> mipėl
menstruation-house

PR 50 (V_1) l ==> T_1 / V_1 __ (if //==> Ø) T_1

where T = [+coronal] = t, d, c, s, r, n

This rule accounts for the assimilation of l to a class of consonants which along with l constitutes a "natural class" in that they and only they share the feature [+coronal]. If a long vowel precedes l, it becomes shortened and then l itself changes.

(E 91) yi#be#yaali #sare #wee ==> (y)i be //yaʿaʿlʿ
I will have knife the

//saʿaʿr we ==> (y)i be //yaʿs(//==>Ø) saʿaʿr we

ye#sa#weri#yiree#mė#wȯȯ + li#tayiiti
he ta see tree at on of hill

==>(y)e sa //wer //(y)ire //mė //wȯ^ȯ^l //taʿ(y)iit
==>(y)e sa //wer //(y)ire //mė //wȯ^t taʿ(y)iit
'He saw trees on the mountain.'

male + li#Cuxu ==> maʿl //cuuxU ==> maʿc cuuxU
bird of Truk

legace + li # repsece ==> lagaʿcer repsec
beside foreigner

legace + li # tade ==> lagaʿcet taʿaʿd
sea

la + li # cale ==> laʿc caʿlʿ
in water

faa + li # se + wo ==> fa s seew
under 1 Nucl(gen.)
'once'

medaxe + li # daa ==> medaʿxed da
pain intestine

mata + li # naanaa ==> mataʿn naana
eye mammy

but: medaxe + li # { xapi ==> *medaʿxe } { x xaʿaʿp }
hips
{ páwWu } { p páw }
arm
{ kku + yi } { k kkuy }
fingernail my

PR 51 u(u) ==> [-back] / { d, s, l, m } ___ B̃

The high back vowel becomes fronted ([ü]) after the given consonants if not followed by velarised consonants, n, ṁ, w.

(E 92) dudu ==> dud ==> duud ==> düüd
breast

suru ==> sur ==> suur ==> süür
house-pillar

luu ==> lu ==> lü
coconut

mulu ==> mul ==> muul ==> müül
a kind of insect

but: lumu ==> lum̈u ==> lum̈ ==> luum̈ ==> *lüüm̈
moss

sube ==> sub ==> *süb
to be born(V)

yicuu + li ==> (y)icuul ==> *(y)icüül
on *of*

xulė ==> xul ==> xuul ==> *xüül
love song

yulu ==> yul ==> yuul ==> *yüül
coconut skin

bulu ==> bul ==> buul ==> *büül
chewing gum

PR 52 $\begin{Bmatrix} b \\ d \end{Bmatrix}$ ===> [-voiced] / __ $\begin{Bmatrix} // \\ [-voiced] \end{Bmatrix}$

$\left(\begin{bmatrix} -\text{vocalic} \\ +\text{anterior} \\ +\text{continuant} \end{bmatrix} \right)$

The voiced consonants b and d are devoiced before a juncture or voiceless sounds.

(E 93) cobo ==> cob ==> coob ==> coob̥ [cooΦW]
mat

mada ==> mad ==> mad̥ [maθ]
cooked(V)

PR 53 $\begin{Bmatrix} f \\ x \end{Bmatrix}$ ===> [+voiced] / [+voiced] __ [+voiced]

f and x are voiced between voiced sounds.[4] If they are doubled, they are not voiced, since they are inherently voiceless (see *PR 10*) and since the above condition is not met.

---

[4] f and x do not constitute a natural class according to the scheme in TABLE IV. If the table were rearranged following Jakobson, Fant, and Halle (1965) or Jakobson and Halle (1956), they would with the unique sharing of [+grave] and [+strident]. Such a rearrangement would, however, yield some other possible disadvantages which do not concern us here.

(E 94) kofa- + li ==> kofaˁlˁ ==> kofaˁlˁ [kovaˁlˁ]
result of

magxaa ==> magxa [maŋga]
mango

xa + ffaxo + ya ==> xaffaxo(y) [xaf:ago(y)]
tr *to pity it*
'to be in trouble'

PR 54

$$\begin{bmatrix} S_1 \\ \begin{Bmatrix} l \\ n \\ g \end{Bmatrix} \\ \begin{Bmatrix} m \\ \dot{m} \end{Bmatrix} \end{bmatrix} \text{===> [-release] / \_\_} \begin{bmatrix} S_1 \\ \begin{Bmatrix} C \\ // \end{Bmatrix} \\ \begin{Bmatrix} p,b,m,\dot{m} \\ (//) \end{Bmatrix} \end{bmatrix}$$

where S = $\begin{bmatrix} -\text{nasal} \\ -\text{continuant} \end{bmatrix}$ = p,t,k,c,r

Oral interrupted consonants are not released before the identical consonants; l, n, g before any consonant or //; and m, ṁ before the homorganic consonants (except for w) and optionally before // (see *PR 11*).

(E 95) (Superscripts + and - mean [+release] and [-release] respectively.)

kakkace ==> $k^+ak^-k^+ac^+$
to throw

xa + ppisi + ya ==> xappṗsi(y) ==> $x^+ap^-p^{+}\dot{p}^{+}s^+i(y)$
to float it up

pileta + ya ==> piltaˁ ==> $pil^-t^+a^{\text{ˁ}}$
to sut it

kantini ==> kantin ==> $k^+an^-t^+in^-$
store

figfigi ==> $f^+ig^-f^+ig^-$
to wist

yiṁa #mė #pese ==> (y)iiṁ //mė //pees ==> $\begin{cases} (y)iiṁ^-\ m^+\dot{e} \\ (y)iiṁ^{\pm}\ //m^+\dot{e} \end{cases}$
house and dog
p^+ees^+

xatama #kaa ==> xatama ka ==> $x^+at^+am^+k^+a$
door these

In spite of the alternation between + and -[release], the inherent

distinctive features of each phoneme are not thereby affected. For example, ṁ in yiṁa maintains [+back] regardless of [±release].

PR 55 $\left\{\begin{matrix}p\\t\\c\\k\end{matrix}\right\}$ ==> slightly aspirated /__//

See *PR 12* for inherent unaspiration of consonants.

(E 96) payepe ==> paʿyep ==> paʿyepʾ
pipe

kakke ==> kaʿk ==> kaʿkʾ
to carry

mata ==> maat ==> maatʾ
eye

kakkace ==> kakkaʿc ==> kakkaʿcʾ
to throw

PR 56 $\begin{bmatrix}C_1\\V_1\end{bmatrix}$ ===> [+tense] / (__) $\begin{bmatrix}C_1\\V_1\end{bmatrix}$ (__)

The feature [tense] is non-distinctive, since long segments are phonemically geminate (see *PR 13*). The above rule assigns long segments with [+tense].

(E 97) tapa ==> tap ==> taap ==> taap ==> taap
cheek

kakke + li ==> kakkeli ==> kaʿkkel ==> kaʿkkel

PR 57 x ===> $\begin{bmatrix}\text{fronted / } \_\_ \left\{\begin{matrix}C\\//\\i,\ e,\ ȧ,\ ė,\ u\end{matrix}\right\}\\ \text{slightly voiced / } //\_\_ ė\\ x^{\dagger} \text{ / } \_\_ \ i,\ e,\ ȧ\end{bmatrix}$

This rule characterises the allophonic variations of the phoneme x, which has a high frequency of occurrence in texts compared to k (see 3.5. (4)).

(E 98) xilLi == xil == $x^{\dagger}$il
skin

xȧȧta == xȧȧt == $x^{\dagger}$ȧȧt
how come?

tèxtaa ==> tèxta ==> tèxʿta
doctor

cuxu ==> cuuxU ==> cuuxʿU
basket

ffaxe ==> ffax ==> ffaxʿ
to look for

xèrxèru ==> xèrxèr ==> gʿèrgʿèr
to scratch

PR 58 $\begin{bmatrix} \{ayè\} \\ \{åwu\} \\ åw \\ å(y)i \end{bmatrix} ===> \begin{bmatrix} [ë:] \\ [ë] \\ åå \end{bmatrix}$

PR 58 shows the monophthongal assimilation of the indicated phoneme sequences, producing a mid-central sound which is characterised as more open and with less lip-rounding than the sound represented by è.

(E 99) cayè + li ==> cayèl ==> cë:l; påwWu ==> påwW ==> påw ==> [pë]
leaf *arm*

påwWu + mami ==> pawWumaʿm ==> påwumaʿm ==> [pë:maʿm]

màyi + li ==> màyil ==> màál
breadfruit

PR 59 $\begin{bmatrix} V_1V_1 \\ V \end{bmatrix} ===> \begin{bmatrix} \acute{V}_1V_1 \\ \acute{V} \quad / \quad \_\_CCV\{C, \#\} \end{bmatrix}$

In general, stress (which is non-phonemic) is not clearly recognisable, and it subphonemically accompanies a long vowel or a short vowel preceding a long consonant. However, a short vowel preceding a long consonant followed by a long vowel is not stressed.

(E 100) yegaage ==> yegaʿaʿg ==> yegáʿaʿg
work

re # kàkkàáta # faa ==> re //kàkkáát(a)fa
they do what which
'What are they doing?'

bulla + li ==> bullel ==> búllel
heart of

In speech, demonstrative enclitics often receive stress if there is no stressed sound in the word.

(E 101) babiyoro # faa ==> babiyor fá
book *which*
(Dm)

yiwee#gė ==> (y)iwé // gė
that *and*
'and, but, then'

3.6.4. *MAJOR PARADIGMS AND EXAMPLES OF PHONETIC RULE OPERATION*

(1) *PR 14* produced the base form paradigms of predicational markers (Pm), attributive markers (At), and object suffixes (Os). Subsequent rules have modified the base forms of At and Os as well as the stem vowels preceding them. No essential change has been made in the Pm paradigm. TABLE IV gives the surface forms of the combination of basic stem vowels and object suffixes, and TABLE V the surface variants of basic stem vowels before attributive suffixes. In the former table, only short stem vowels are presented, since it is assumed that long ones, though very few examples are found, behave in a similar way.

TABLE IV

ASSIMILATION BETWEEN STEM VOWELS AND OS FORMS

1 stemV \ 2 Os	yeyi *me*	xo *you*	ya *him*	xica *us(incl)*	xomami *us(excl)*	xomiyi *you(pl)*	yVre *them*
i	iyey	uxU	i(y)	ixic	uxumaʿm	uxumi(y)	iir
e	eyey	e·x0	e(y)	exic	exomaʿm	exomi(y)	eer
a	aʿyey	a·x0	aʿ	aʿxic	axomaʿm	axomi(y)	aar
o	oyey	o·x0	o(y)	oxic	oxomaʿm	oxomi(y)	oor
u	uyey	uxU	u(y)	uxic	uxumaʿm	uxumi(y)	uur
ė	ėyey	ėx0	ė(y)	ėxic	ėxomaʿm	ėxomi(y)	ėėr

(TABLE V overleaf)

TABLE V

STEM VOWEL ALTERNATION BEFORE At

At / Stem V	yi[y] *my*	mu[mʷ] *your*	la[lˀ] *his*	li[lˁ] *of*	ca[c] *our incl.*	mami[maˁm] *our excl.*	miyi[mi(y)] *your pl.*	yire[r] *their* (+yi)
i	i	i	i	i	i	(i)	(i)	ii
ii	ii	ii	ii	ii	ii	ii	ii	ii
e	e	e	e	e	e	(e)	(e)	ee
ee	e^e^	ee	ee	e^e^	ee	ee	e^e^	ee
åå	å^å^	åå	åå	å^å^	åå	åå	å^å^	åå
a	{e, ė}	{o, ė}	a	{e, ė}	a	(a)	(e)	åå
	aˁ	a	a	aˁ	a	(a)	(aˁ)	åå
aa	aˁaˁ	aa	aa	aˁaˁ	aa	aa	aˁaˁ	aa
òò	ò^ò^	òò	òò	ò^ò^	òò	òò	ò^ò^	òò
o	o^	o	o	o^	o	(o)	(o^)	oo
oo	o^o^	oo	oo	o^o^	oo	oo	o^o^	oo
u	u	u,ė	u,ė	u,ė	u,ė	(u,ė)	(u,ė)	uu
uu	uu	uu	uu	uu	uu	uu	uu	uu
ė	ė	ė	ė	ė	ė	(ė)	(ė)	ėė
ėė	ėė	ėė	ėė	ėė	ėė	ėė	ėė	ėė

(2) The variety of surface manifestations of numerative compounds may be observed in the following table, in which seemingly most irregular ones are illustrated.

TABLE VI

ALTERNATION IN NUMERATIVE COMPOUNDS

1 \ 2 Nus	Num #yexe *10*	Nucl +wo *(gen.)*	+yale *line*	+male *animate*	+fase *round-ob.*	+yaye *long-ob.*	+yafe *bundle*
se *1*	seex	seew	seyel	semål	sefås	seyåy	seyåf
ruwe *2*	riyex	ruwow	ruw†yal	ruw†mål	ruw†fås	ruw†yåy	ruw†yåf
sulu *3*	silix	suluw	sul†yol	sulmèl	sulfès	sul†yoy	sul†yef
faay *4*	faayex	faaw	faayel	faamål	faafås	faayåy	faayåf

(continued on opposite page)

TABLE VI - *continued from previous page*

5 lima	limex	limow	limɑ̀ɑ̀l	limmàl	limfès	limɑ̀ày	limɑ̀ɑ̀f
6 wole	wòlex	wòlow	wol†yel	wòlmàl	wòlfàs	wòl†yày	wòl†yàf
7 fisu	fisix	fisuw	fls†yol	fismèl	fisfès	fis†yoy	fis†yef
8 wàlu	wàlix	wàluw	wàl†yol	wàlmèl	wàlfès	wal†yoy	wal†yef
9 diwa	diwex	diwow	diwɑ̀ɑ̀l	diw†màl	diwfàs	diwɑ̀ày	diwɑ̀ɑ̀f

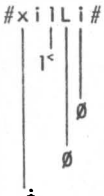
(3) *Worked Examples*

The following examples are given to illustrate the derivational processes formulated in the phonetic rules (*PR 18 - PR 59*) in 3.6.3. The inputs are various base forms and the outputs are corresponding surface forms, in which some minor features such as tense and stress are omitted in many cases.

INDEX TO EXAMPLES

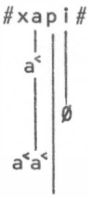
PR No.	Example Nos.	PR No.	Example Nos.
18	35	39	13, 33, 34
19	34	40	1, 2, 3, ...
20	21	41	30, 31, 33
21	22	42	1, 2
22	37	43	9, 29
23	18	44	17, 18, 19, ...
24	14	45	4, 10, 12, ...
25	28	46	17, 18
26	4, 5, 6, 7, 8...	47	6
27	19, 20, 23, 36	48	7, 14, 28
28	13, 33	49	25
29	10, 31	50	30
30	8, 32	51	23
31	11, 12	52	3
32	2, 5, 7, 9, ...	53	20, 22, 26, ...
33	15, 36	54	25, 29
34	26	55	2
35	6, 7	56	31, 32, 38
36	5	57	1, 6, 7, ...
37	24	58	9
38	1, 11, 12, ...	59	9, 10

(1) #xilLi# *'skin'*



[xˈil]

(2) #xapi# *'hips'*



[xa:pʰ]

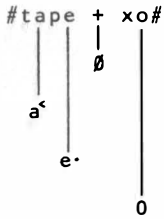
(3) #mada# *'to be cooked'*

[mɑ.θ]

(4) #fèèru + ya# *'to make it'*

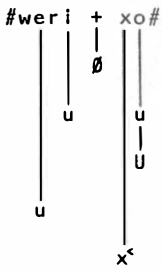
[fə:ru(y)]

(5) #tape + xo# *'to need you'*



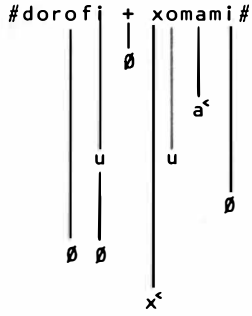
[tape·x0]

(6) #weri + xo# *'to see you'*



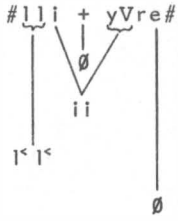
[wurux$^{<}$U]

(7) #dorofi + xomami# *'to catch us(excl)'*



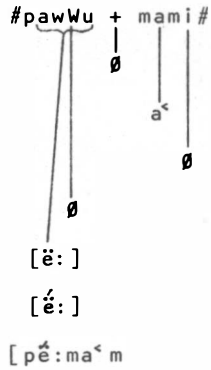
[ɗorfx$^{<}$uma$^{<}$m]

(8) #lli + yVre# *'to kill them'*



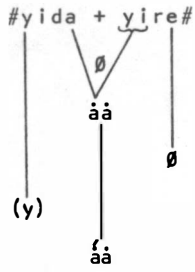
[l$^{<}$:i:r]

(9) #pawWu + mami# *'our(excl) arms'*



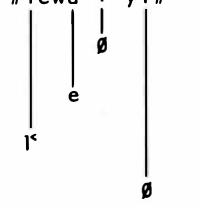
[pḗ:maˀm]

(10) #yida + yire# *'their name'*



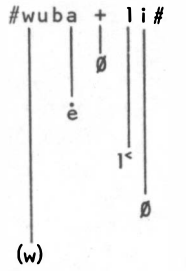
[(y)idǽ:r]

(11) #lewa + yi# *'my tongue'*



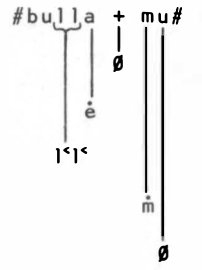
[lˀewey]

(12) #wuba + li# *'chest of'*



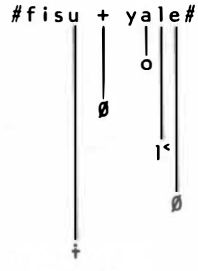
[(w)uɓʷəlˀ]

(13) #bulla + mu# *'your heart'*



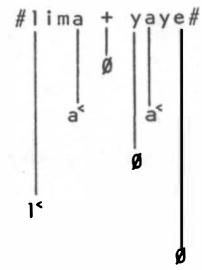
[ɓʷulˀ lˀəmʷ]

(14) #fisu + yale# *'five line objects'*



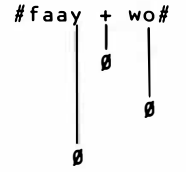
[fisṫyolˀ]

(15) #lima + yaye# *'five long objects'*



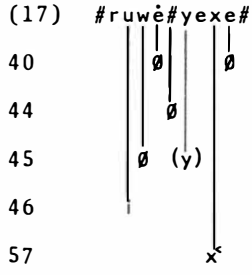
[lˀima:y]

(16) #faay + wo# *'four (gen.) objects'*



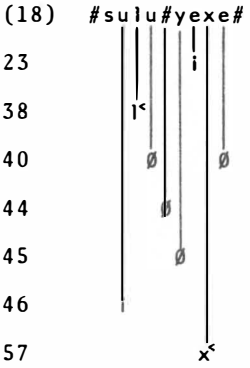
[fɑ:w]

(17) #ruwė#yexe# '20'



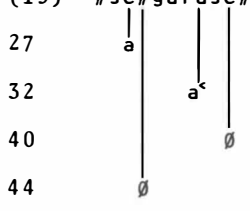
[ri(y)exˁ]

(18) #sulu#yexe# '30'



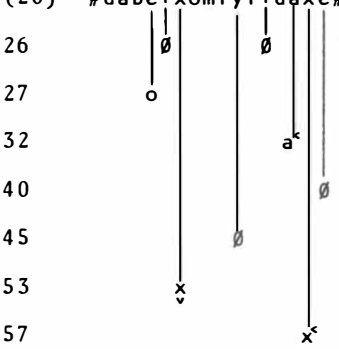
[silˁixˁ]

(19) #se#garase# '1000'



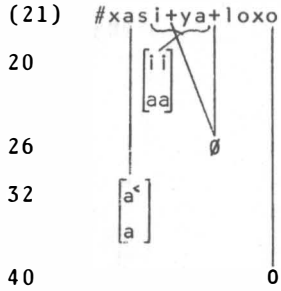
[saŋaras]

(20) #dabe+xomiyi+daxe# 'to follow you(pl) east'



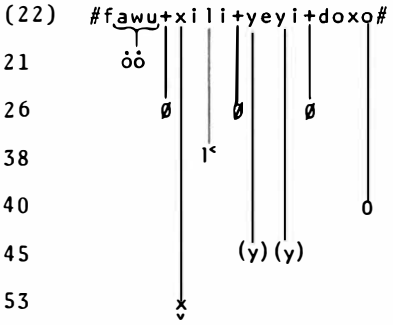
[ɗabʷoɠomi:ɗaxˁ]

(21) #xasi+ya+loxo# 'to carry it away'



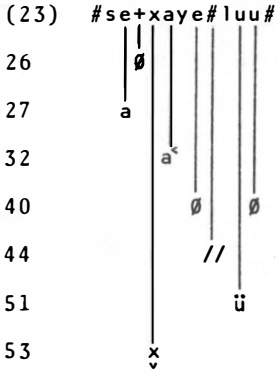
[xasi:lox0
xɑsa:lox0]

(22) #fawu+xili+yeyi+doxo# 'to row hither with me'



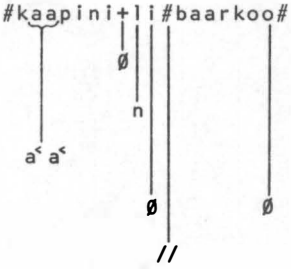
[fɔ:ɠilˁi(y)e(y)iɗox0]

(23) #se+xaye#luu# *'one coconut tree'*



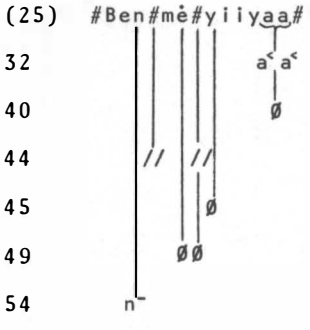
[sɑgay//lü]

(24) #kaapini+li#baarkoo# *'captain of ship'*



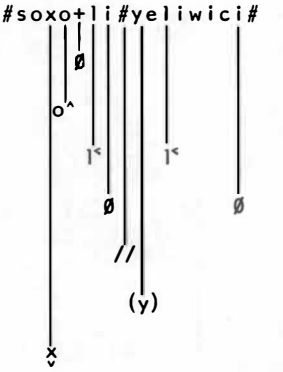
[ka:pinin //bɑ:rko]

(25) #Ben#mė#yiiyaa# *'Ben from where'*



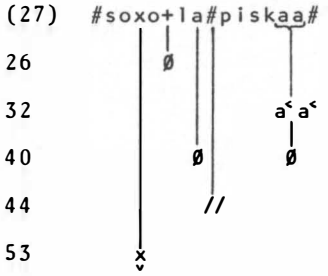
[bʷen‾//mi:ya]

(26) #soxo+li#yeliwici# *'boy's stick'*



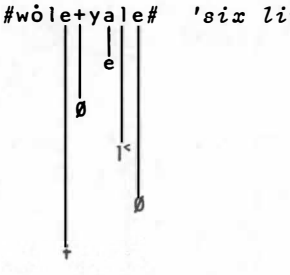
[sogoˆlˇ //(y)elˇiwic]

(27) #soxo+la#piskaa# *'spear'*



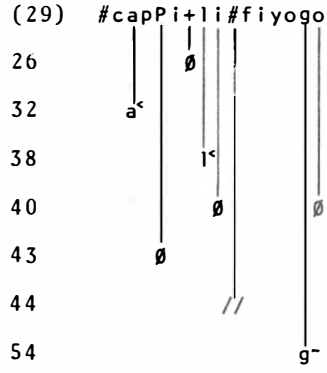
[sogol//piska]

(28) #wȯle+yale# *'six lines'*



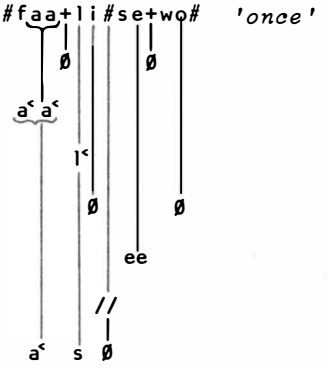
[wɔlǂyelˇ]

(29) #capPi+li#fiyogo# *'beginning of a story'*



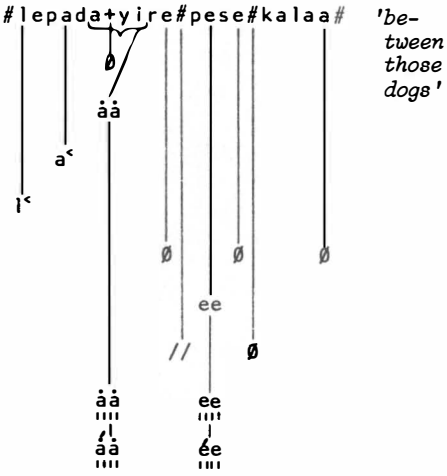
[capilˇ//fiyɔŋ⁻]

(30) #faa+li#se+wo# *'once'*



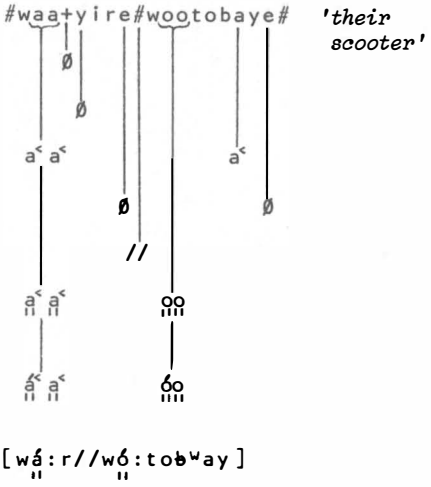
[fas:e:w]

(31) #lepada+yire#pese#kalaa# *'between those dogs'*



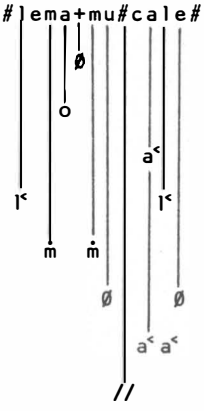
[lˇ epadǽ:r//pé:s kala]

(32) #waa+yire#wootobaye# *'their scooter'*



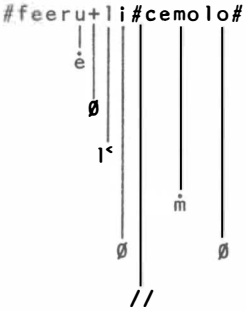
[wǽ:r//wó:toʁway]

(33) #lema+mu#cale# *'your water'*



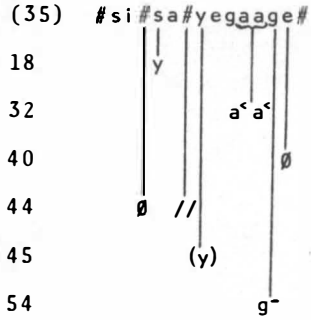
[lˇ emʷomʷ//ca:lˇ]

(34) #feeru+li#cemolo# *'making of a pig-pen'*



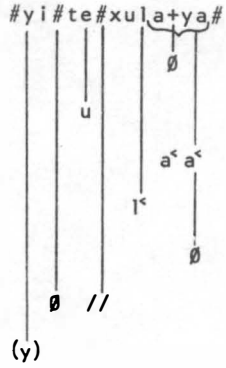
[fə:rəlˇ//cəmʷol]

(35) #si#sa#yegaage# *'Let's work.'*



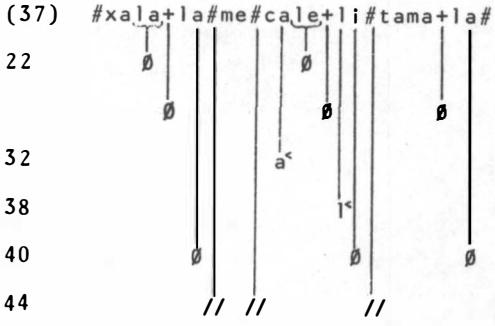
[siya//(y)eŋa:ŋ-]

(36) #yi#te#xula+ya# *'I don't know it.'*



[(y)itu//xul< a]

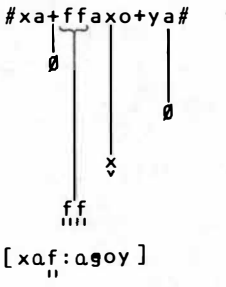
(37) #xala+la#me#cale+li#tama+la#



[xɑl//mə//cal< //tɑmɑl]

'his food and his father's water'

(38) #xa+ffaxo+ya# *'to be in trouble'*



[xɑf:ɑgoy]

CHAPTER IV

BASE OF SYNTACTIC COMPONENT

4.1. SENTENCE TYPE

4.1.1. *GENERAL*

All Ulithian sentences are grouped into two types: major and minor. The major type represents those well-formed sentences which can be generated by the rules of the syntactic component of the grammar described here. The minor type includes all other sentences.

4.1.2. *MINOR SENTENCES*

Most words, phrases, or utterance pieces may serve as minor sentences in certain speech situations. Since such minor type sentences are categorically not formalisable in any simple way, their sub-classification may only be presented enumeratively. Some representative sub-types follow.

(1) *Response to question*

i. Yes-no particles

gėė *'yes, no'* (affirmation to the question)
yååb *'yes, no'* (negation to the question)
yegėė *'oh yes, oh no, of course'* (strong affirmation to the question)

E 1 (a) Xo be loxo? Gėė.
you will go
'Will you go?' *'Yes.'*

(b) Xo towee loxo? Gėė.
not
'Won't you go?' *'No.'*

(c) Xo towee yule tamaaxoo? Yàáb, yi be yule.
smoke cigarette I
'Wouldn't you like to smoke?' 'Yes, I will.'

(d) Xo tay dabe-yVre? Yegèè.
not follow-them
'Didn't you go with them?' 'Of course not.'

ii. Short response

E 2 (a) Medaa melee xo weri-ya? Yaa-yi babiyoro.
what that see-it my-object book
'What are you looking at?' 'My book.'

(b) Yiitey melee ye fèfèèru-ya yegaage laay? Tama-mu.
who doing-it work that
'Who is the man doing that work?' 'Your father.'

(2) *Vocative*

i. Polite vocative words

SINGULAR	PLURAL	
tama-yi	re-tamma-yi	*'sir (lit. my father)'*
sila-yi	re-sila-yi	*'madam (lit. my mother)'*
malap	re-malap	*'Mr (followed by name)'*
diyaf	re-diyaf	*'Madam (followed by name)'*
xalee	re-xalee kaa xalee kaa	*'sir'*
liwulee	re-liwulee kaa liwulee kaa	*'madam'*

E 3 (a) Doxormar, xasi-ya doxo cale laa, tama-yi.
carry hither water-that
'Doxormar, would you please bring that water, sir?'

(b) Xo sa xacixcixi, sila-yi.
(perf.) *trouble*
'Thank you, madam.'

(c) Xa peda-ya loxo mele laa bo xa si be xasi-ya
you throw (pl) thither mast-line so-that we (incl)

ppaaye la yaa-yi, re-tamma-yi.
ration which-is
'Throw away the mast-line, so that we may get my ration, sirs.'

(d) Malap Xuwar, xo be loxo yiiyaa?
go where
'Mr Xuwar, where are you going?'

(e) Xo be wedi-yeyi, diyaf Yilimesox.
wait-me
'Would you wait for me, Lady Yilimesox.'

(f) Yiiyaa melee xo ddare yiiyage, xalee (Taxac)?
where run (anaph.)
'Where are you running, sir (Chief Taxac)?'

ii. Second person pronouns and predication markers

E 4 (a) Xeel, si sa loxo.
(Pro) (perf.)
'You! Let's go.'

(b) Te yoor se-male là ye be buu doxo, xaamiyi.
not exist one who he come you-pl(Pro)
'Sirs! Nobody will come.'

(c) Loorob, xo Loorob.
you(Pm)
'Loorob, you Loorob!'

(d) Xo te weri talee wee yaa-yi, xo?
see knife,axe the
'You! Didn't you see my axe?'

iii. Human names

E 5 (a) Yagpaluya, xasi-ya doxo pinsan laa.
'Yagpaluya! Bring that pencil.'

(b) Medaa xo sèrè, xo Darxos?
say
'What did you say, you Darxos?'

(3) *Short questions*

E 6 (a) Xaree? *'Is that right?'*
(b) Medaa? *'What do you mean?'*
(c) Ye? *'And so?'*
(d) Ye yiwee? *'And what?'*
(e) Yaab, là? *'No! So what?'*

(4) *Interjections*

E 7 (a) Mayilaa. *'Don't do that!'*

(b) Yilaa gė. *'See you!'*

(c) Yiwee gė. *'I said it's sufficient!'*

(d) Yiwee ṁo. *'That's O.K.!'*

(e) Yituwaay. *'Oh. Nice! (jokingly)'*

(f) Yak. *'Oh my! What!'*

Yak, ye xaataa xo la dabe-yeyi?
how-come become
'Oh my! How come you followed me?'

(g) Aay *'O.K., well! (to draw others' attention)'*

Aay, xa si sa loxo, si be kassiya-ya.
we (Pro) *ask him*
'Well! Let's fo and ask him.'

(h) A *'Oh!'*

A, yi towe loxo.
I not
'Oh! I won't go.'

(i) Gaak *'Ah! (admiration, as of beauty)'*

(j) Yeey *'Oh! (mild surprise)'*

(5) *Sequence or interrupted sentences*

Very frequently, major sentences are preceded or followed by a connector such as gė *'and, then, but'*, ye *'and so'* and là *'and that, so, then'* with the accompanying clause not expressed. Such pieces are called "sequence or interrupted" sentences following Elson and Pickett 1965:125-6. In one instance, i.e. in negative future conditional sentences (*'if ... not'*), the interrupted sentences are uniquely translated as conditional even though no connector follows. This is because of the internal structure of conditional clauses which is not the same as that of other clauses. For one thing, a futurity TA particle may directly be followed by a negative particle only in a conditional clause, e.g. be *'will'* + teed *'not yet'* meaning *'if ... not ... yet'*.

E 8 (a) Ye yiitey melwee?
who that (unseen)
'And so who is it?'

(b) Ye xo loxo?
go
'And are you going?'

(c) Xo sa la ggata ye...
become hurry
'You became so busy and...'

(d) Gè lixidi-ya bo ye be sar siilaye bo yi be
forget-it because a-bit long
faxe fàdale leboso là yi be mele yiiyage.
look-for around place where stay (anaphoric)
'But forget it because it may take some time for me to find a place to stay.'

(e) Ye sa ddare loxo gè...
run dr
'He ran away and...'

(f) Là ye mele Loorob yiiyaa?
where
'So where is Loorob?'

(g) Là malboo ye sa bii daxe. (Cf. *Malboo là ye sa bii daxe.)
perhaps come dr
'Thus perhaps he went eastward.'

(h) Ye be tay buu doxo...
ng
'If he doesn't come, ...'

(i) Ye be towee lapa mogoyo...
ng *enough food*
'If the food is not enough, ...'

(6) Others

Other minor sentences which do not belong to one of the above groups may be included here.

E 9 (a) Wol gaag.
also I(Pro)
'Me too.'

(b) Yiir cox.
they just
(Pro)
'Just they.'

4.2. MAJOR SENTENCES

4.2.1. *CONSTITUENT STRUCTURE*

BR 1 $S \longrightarrow S(con\frown S)$

LEXICON

gė	*'and, but'*	+con, +coordinate
	'then'	+con, +subordinate
xaree	*'or'*	+con, +coordinate
ye	*'and so'*	+con, +coordinate
là	*'and (that), as, now that'*	+con, +coordinate
bo	*'because, so that'*	+con, +subordinate

4.2.2. *SIMPLE AND COMPOUND SENTENCES*

BR 1 divides major sentences into simple (S) and compound ($S\frown con\frown S$) The traditional subdivision of compound sentences into coordinate and subordinate will be made by the features of connectors (+con) along with the internal structures of the constituent sentences (Ss). Thus in E 10, the ambiguity may be accounted for by the difference in features of the connector gė.

E 10 Ye be buu doxo gė yi be loxo.

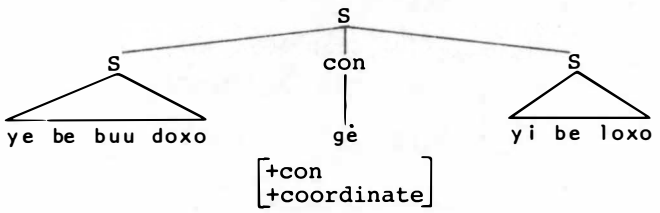
come dr *go*

(a) *'He will come and I will go.'*

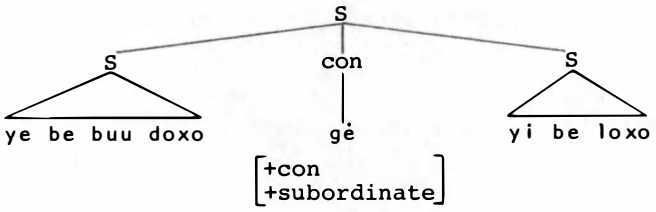
(b) *'If he comes, then I will go.'*

The deep structures of (a) and (b) are respectively the following (abbreviated) shapes:

(a)



(b)



The structural indicators for a sentence to be recognised as a subordinate type seem to be of the following kinds:

(1) The appearance of sentence adverbial (SA) xaree *'by any chance'* or yixlee *'suppose'* beginning the first S in SconS indicates that the first S is subordinate to the second.

E 11 (a) [Xaree xeel xo be cuya mė Cuxu]$_S$ [gė]$_{con}$
you ta *leave*

[yiiyaa melee xo sa loxo mė yiiyage?]$_S$
where fm ta *go* *there*
'If you leave Truk, where will you be going from there?'

(b) [Yixlee re be teed lli-ya paabiya wee]$_S$ [gė]$_{con}$
ng *kill-it pig* dm

[re sa faga bo lawu-li yaramata wee]$_S$
give as Cl *person*
'If they haven't killed the pig yet, they will give it to the person.'

(2) As briefly mentioned earlier, the sequence consisting of a positive TA particle followed directly by a negative TA particle is permitted only in a subordinate clause. Thus the occurrence of such a combination necessarily implies that the sentence is a subordinate type.

E 12 [Ye be te wa buu doxo]$_S$ [gė]$_{con}$ [ye be le mese feefele wee]$_S$
not again ta ta *die* *woman*
'If he doesn't come back again, the woman will soon die.'

(3) If the main verb of the first S has the feature <+time>, that S is in general subordinate to the second S.

E 13 [Ye be siilaye]$_S$ [gė]$_{con}$ [yi saab mooc xola-ya Hawaii]$_S$
long-time ta *finally arrive-it*
<+time>
'After a long time, I shall finally arrive in Hawaii.'

(4) Another indicator for a subordinate construction is a difference in TA particles between the two Ss connected by a connector. That is, if the TA in the first S is be which has the feature <+future>, and that of the second S is sa (which has <+future> only in imperative sentences and in conclusive clauses of the subjunctive construction - otherwise always <-future>), the implication is that the first S is subordinative.

E 14 [Re be buu doxo]$_S$ [gė]$_{con}$ [ye sa kapatapata gali-yVre]$_S$
talk *to-them*
'When they come, he will talk to them.'

(5) Finally, observe E 15 in which yilaa ṁo *'even though* (lit. *even that)'* and melwee *'when* (lit. *that-unseen)'* are considered as main verbs and the clauses following them as their embedded sentences. The predication marker (Pm) ye is optionally dropped before these demonstratives. Thus yilaa ṁo and melwee along with yilaa (gė), yiwee (gė) (for these, see 4.3.4.) which are all demonstratives are the indicators of subordinate constructions.

E 15 (a) [Yilaa ṁo ye mommaye]$_S$ [gė]$_{con}$ [yi towee cuwayi-ya]$_S$
good ng *buy*
'Even though it is good, I will not buy it.'

(b) [Melwee Bexaw ye tay weri-ya Yap]$_S$ [gė]$_{con}$ [Yulidiy
ng *see-it*
ye sa laxa mė meteraale]$_S$
appear from east
'No sooner had Bexaw seen Yap, than Ulithi appeared in the east.'

Recursive application of BR *1* may generate complex layerings of sentences as illustrated in E 16.

E 16 [[Xaree ye be mmoro yage]$_S$ [gė]$_{con}$ [[ye ma moro luu yiiyage]$_S$
blow wind *fall c-nut by it*
[gė]$_{con}$ [ye ma fildaa loxo yiṁa]$_S$]$_S$]$_S$ [gė]$_{con}$
blown-off house
[[xaree ye be te yoor loxo luu]$_S$ [gė]$_{con}$ [[ye be kėlȯxo
not-exist *hungry*
yaramata]$_S$ [gė]$_{con}$ [yoor lȧ ye ma mese]$_S$]$_S$]$_S$]
exist those-who

'If the wind blows hard, coconut trees will fall down and houses blown off, and if there is no coconut tree, people get hungry and they often die.'

4.2.3. *CONNECTORS* (+con)

Five sentence connectors are found (see Lexicon). By virtue of BR *1*, a flood of phrase level coordinate constructions and variously reduced clause level coordinations may be accounted for by means of conjunction reduction transformations (e.g. TRs *3* and *6*).

Connector gė has many other functions such as a focus marker (fm) and a phrase connector. Only its function as a sentence connector is treated here. It has the highest frequency of occurrence among the connectors, with its dual role, i.e. coordination and subordination.

E 17 Coordination

(a) [Ye sa loxo]$_S$ [gė]$_{con}$ [gaag yiiyee yi sa buu doxo]$_S$
ta *go* *here* ta *come*
'He went away, but I have come.'

(b) [Xuyor yilaa senseye]$_S$ [gė]$_{con}$ [Toomas
fm
yilaa yeliwici-li sukuun]$_S$
child
'Guyor is a teacher and Thomas is a student.'

(c) [Ye coolopa petexo-li wudu bogeyi lee]$_S$ [gė]$_{con}$
many *rainfall* *rain night* *this*
[ye kkela xalfėge]$_S$
strong cold-wind
'There was much rain and the wind was strong.'

E 18 Subordination

(a) [Teed yoor melee ye coxu-ya bo xala-la mė yiiyage]$_S$
ng *exist* fm *catch-it as food-his* *there*
[gė]$_{con}$ [ye sa mmadaga waa mė luxu-li yiiy yusaxale wee]$_S$
sound *back* *fishtrap* dm
'Hardly had he tried to catch fish for his food when he heard a canoe from the backside of the fish-trap.'

(b) [Ye tay siilaye yaa-li tarṁale wee memmele là ye ggace]$_S$
ng *long* Cl(gen) *boy* *staying that* pm *lonely*
[gė]$_{con}$ [ye sa bii daxe tėėt tarfeefele]$_S$
come east some girl
'Not long after his lonely living, some girls came eastward.'

Xaree is a disjunctive connector. It relates coordinative phrases and clauses. For its function as a phrase connector, see 4.8.3.

E 19 (a) [Tayiiti melee ye sa mokko]$_S$ [xaree]$_{con}$ [tade
hill fm *collapse* *sea*

melee ye sa buru]$_S$
high-tide

'Either the mountain fell down, or the sea water increased.'

(b) [Yiiy melee ye sa mese]$_S$ [xaree]$_{con}$ [malaa tama-la
he *die* *that* *father*

melee ye sa tamaaye]$_S$
sick

'Either he died, or his father is sick.'

Ye always connects coordinate sentences. No examples have been found in which phrases are connected by ye. E 20, however, shows examples where ye intervenes between a predication part and a prepositional phrase.

E 20 (a) Yi be le loxo ye sukuun.
ta *go*

'I will go (and so) to school.'

(b) Ye sa buu logo, buu logo ye la-li fala wee.
dr *in* *men's house* dm

'He went and went (and so) into a men's house.'

Constructions like E 20 are treated in this study as a kind of conjunction reduction (*TR 8*). Thus E 20 (a) and (b) are derived from the following coordinate sentences:

(a) <== [yi be le loxo]$_S$ [ye]$_{con}$ [yi be le loxo [sukuun]$_{PrepP}$]$_S$

(b) <== [ye sa buu logo buu logo]$_S$ [ye]$_{con}$ [ye sa buu logo buu logo [la-li fala wee]$_{PrepP}$]$_S$

More examples follow where ye is a sentence connector.

E 21 (a) [Ye sa yafisi-ya, yafisi-ya]$_S$ [ye]$_{con}$ [ye la
pull *it* *become*

ppisi daxe Fayis]$_S$
float up(dr)

'He pulled it and pulled it and thus Fais became floated up.'

(b) [Xo sa sėrė]$_S$ [ye]$_{con}$ [ye sa yifaa saga-la?]$_S$
say *what* *state-its*

'You said that and why was that?'

(c) [Ye sa la xasixsixsixi]$_S$ [ye]$_{con}$ [ye sa makaade gali se-male
that-way *ask* *to* *1* Nucl

re-sèfaca là ye dabe-ya]$_S$
low caste that follow
'Things turned out that way, and he asked a low caste man to accompany him.'

(d) [Re sa loxo]$_S$ [ye]$_{con}$ [[re sa la fitaa fitaa]$_S$
go fishing

[ye]$_{con}$ [yiiyee sa tafaale doxo yixalaa]$_S$]$_S$
here *return* *now*
'They went and went fishing and then now came back.'

(e) [Ye be sulu-wo mè sulu-wo]$_S$ [ye]$_{con}$ [ye la wòle-wo]$_S$
3 Nucl (gen) *and* *6*
'Three plus three equal six.'

Là, as a relator, has two syntactic roles: a coordinate connector and a complementiser. Its role as a complementiser will be discussed in 4.9.6. Examples where it is a coordinate connector follow.

E 22 (a) [Ye loxo]$_S$ [là]$_{con}$ [ye sa siilaye]$_S$
long time
'He went a long time ago.'
(lit. *he went and it was long time*)

(b) [Yiir mè Magadow re loxo Yulidiy]$_S$ [là]$_{con}$ [re dabe-ya wayele]$_S$
they and *plane*
'They and Magadow went to Ulithi by plane.'
(lit. *they and Magadow went to Ulithi and they accompanied plane*)

(c) [Xa si ciil kàkàátaa?]$_S$ [là]$_{con}$ [xadalboo si
we(incl) pm *still doing what* *supposedly*

be le loxo]$_S$
ta
'What are we still doing now that we are supposed to go?'

Bo is used as a preposition (4.7.4.) and a complementiser (4.9.6.) in addition to its role as a subordinate connector. The latter role is illustrated below.

E 23 (a) [Yi te masėrė]$_S$ [bo]$_{con}$ [yi sa yule koofiy]$_S$
ng *sleep* *drink*
'I cannot sleep because I drank coffee.'

(b) [Te gaag Manuwal]$_S$ [bo]$_{con}$ [gaag Darxos]$_S$
I
'I am not Manuel but Darxos.'
(lit. *Manuel is not me because I am Darxos*)

(c) [Xo towee kòòkomo]$_S$ [bo]$_{con}$ [yelusu kalaa re de weri-xo]$_S$
you ng *play* *ghost* dm ng *see you*
pm
'Don't play around lest those ghosts should see you.'

4.3. MINIMAL SENTENCES

4.3.1. *CONSTITUENT STRUCTURE*

BR 2 S ⟶ (Modality) Proposition

BR 3 Modality ⟶ $(^{Q}_{Imp})$ (Emp)

BR 4 Proposition ⟶ (SA) $\left\{\begin{matrix}\text{Predication}\\ \text{Identification}\end{matrix}\right\}$ (PrepP)

LEXICON

lixidiboo	*'however'*	+SA
yixiliboo	*'however'*	+SA
malboo	*'maybe'*	+SA
xadalboo	*'supposedly'*	+SA
xaree	*'by any chance'*	+SA, limited embedded S
yixlee	*'if'*	+SA
yegėė	*'of course, indeed'*	+SA
xaramoo	*'in spite of that'*	+SA

4.3.2. *MAIN TYPES OF MINIMAL SENTENCES*

BRs 2-4 give the main types of minimal major sentences. The basic division is between predication and identification sentences which underlie the only obligatory categories in the above rules. Figure V and the examples in E 24 may show a general picture of the further subdivision made in the above base rules. Q and Imp are mutually exclusive in BR 3 and Imp is irrelevant in identification sentences in Figure V. The latter fact will simply be dealt with by means of transformation blocking.

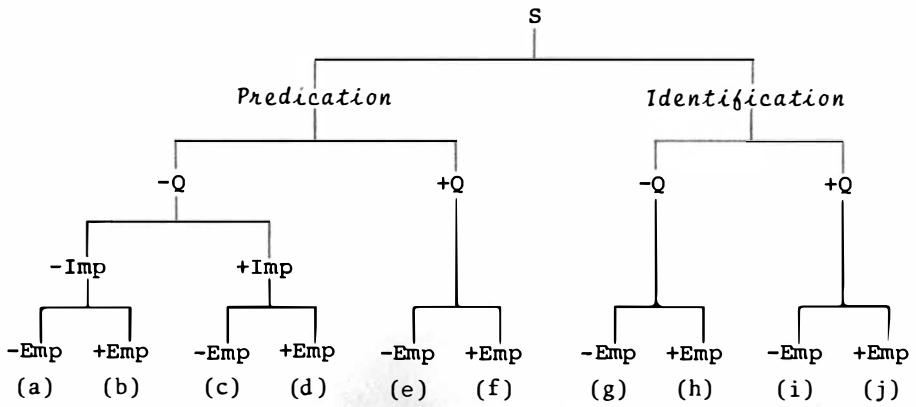


FIGURE 5

MAJOR SENTENCE TYPES

E 24 (a) Ye sa mese xece wee.
pm ta *die rat that*
'The rat died.'

(b) Xece wee melee ye teed mese.
fm *not*
'It is that rat that has not died yet.'

(c) Maroo diye yixaa.
sit down here
'Sit down here!'

(d) Xeel melee xo towee loxo.
(Pro) *not go*
'You! Don't go!'

(e) Re sa molo mė yiree-li kȯȯkomo?
pm *from at play*
'Have they finished playing?'

(f) Wucu melee tay yoor?
not exist
'Are there bananas any more?'

(g) Gaag se-male tėxtaa.
I(Pro)
'I am a doctor.'

(h) Te gaag melee tèxtaa.
not
'I am not the one who is a doctor.'

(i) Xeel yiitey?
who
'Who are you?'

(j) Te yiiy melee se-male senseye?
he(Pro)
'Isn't he the one who is a teacher?'

4.3.3. *MODALITY AND PROPOSITION*

The category symbols "Modality" and "Proposition" are borrowed from Fillmore 1966, but the subconstituents of these two categories are not the same as those assumed in Fillmore (1966a:8): "The constituent *Modality* contains Interrogative and Negative elements, Sentence Adverbials, Time Adverbials, and various other adverbial elements that are understood as modalities on the sentence as a whole rather than subconstituents of the constituent containing the main verb. I have no strong convictions that these various elements actually comprise a single constituent, but for the time being we may assume that they do." In BR 3, Modality consists of those elements whose common syntactic role is that their presence obligatorily triggers transformations related to question, imperative, and emphasis, respectively. Sentence adverbials are placed under Proposition as an optional category, while time adverbials will be placed under the domination of PrepP which is a subconstituent of Proposition. No significant reason has yet been found to differentiate Time adverbials from Place adverbials or other prepositional phrases in terms of level (see 4.7.).

The postulation in the base rules of the above TR-triggering elements has been affected by the recent efforts demonstrated by TG grammarians towards what Chomsky (1965:132) calls "a somewhat more restricted and conceptually simpler theory of transformations". In a series of works such as Lees 1960, Lees 1963, Klima 1964, Katz and Postal 1964, Chomsky 1965, Jacobs and Rosenbaum 1968, it has been shown that there are good syntactic and semantic reasons for triggering the obligatory application of unitary transformational rules by means of the optional selection of elements in the base string for question, imperative, negative, passive, etc. These TR-triggering elements have been variously named, e.g. "morphemes" in Katz and Postal 1964 (74 and *passim*), "marker" in

Chomsky 1965 (132), "formatives" in McCawley 1968 (155), and "hypothetical constituents" in Jacobs and Rosenbaum 1968 (20). An important syntactic reason for the introduction of such elements in the base rules is that derived constituent structure is uniquely determined since the correct derived structure is predetermined by the presence or absence of such elements. By such a unique determination, it is possible for the output resulting from a *TR* application to a base phrase marker to be placed as the unique structural description for further *TR*s. The more important reason seems to be the semantic one, i.e. in order to maintain the generalisation that transformations do not affect meaning. This assertion is made throughout Katz and Postal 1964 in connection with their consequent view that "projection rules operate exclusively on underlying P-markers", and Chomsky (1965:132) summarises the principle that they assert as follows: "... *the only contribution of transformations to semantic interpretation is that they interrelate Phrase markers* (i.e., combine semantic interpretations of already interpreted Phrase-markers in a fixed way)." With the object of semantic interpretation by means of projection rules, Katz and Postal (1964:76,86&89) assign Imp a dictionary entry that represents it as having roughly the sense of "the speaker requests (asks, demands, insists, etc.) that" and assign Q the rough sense "I request that you answer...".

In this study, which does not consider the semantic component, the role of the elements dominated by Modality is understood to be dual as indicated by Jacobs and Rosenbaum (1968:20) in discussing Q. First, their presence specifies the sentence type to which each element is associated; second, they provide the structures upon which the respective transformations are defined and can apply. While Q and Imp are simply meaning-bearing elements and dominate no formatives, Emp is a lexical category dominating disjunctive lexical items (focus markers). In this respect, Emp is similar to other major categories on the one hand, and similar to other *TR*-triggering elements on the other. No motivation is found to postulate **Neg** (negative) under Modality. For more specific discussions on Modality constituents, see 4.11.

4.3.4. *SENTENCE ADVERBIALS*

Not many sentence adverbials are found. Many apparent sentence modifiers are derivable from other structures by transformation. The following are some of these pseudo-adverbials:

E 25 (a) yilaa gė *'in that case, then, well, by the way'*
that(seen) and

Yilaa gė xo sa yulemi-ya tafeye lee.
ta *drink-it medicine this*
'In that case take this medicine.'

Yey. Yilaa gė se-wo yiiyee.
one this, here
'Oh! Here is another thing by the way.'

(b) yiwee gė *'then, and, but, rather'*
that(unseen) and

yiwee cox gė *'just then, just for that'*

Yiwee gė ye sa loxo.
'Then he went.'

Yiwee cox gė ye sa tagi.
cry
'She cried just for that.'

(c) yilaa *'then, well, by the way, in that case'*

Yilaa xa be bii daxe gė xa towee sėrė xaamami.
go east ng *tell we(excl)*
'By the way, if you go east, don't tell about us.'

(d) yiwee *'then, and, but, rather'*

Yiwee ye sa ffesegu logo bisi-la, ye sa faga xala-la mogoyo.
invite dr *brother give* Cl *food*
'Then, having invited his brother in, he began giving food for him to eat.'

Yilaa and yiwee in E 25 are demonstratives, and it is permissible to place ye (Pm - 3rd sg.) before them without change in meaning, provided that gė (+con) follows these demonstratives. In view of this fact, the sentences in E 25 are interpreted as the derivations of the following processes (see TRs 27 and 28):

$$ye \begin{bmatrix} yilaa \\ yiwee \end{bmatrix} gė\ S \overset{OP}{\Longrightarrow} \begin{bmatrix} yilaa \\ yiwee \end{bmatrix} gė\ S \overset{OP}{\Longrightarrow} \begin{bmatrix} yilaa \\ yiwee \end{bmatrix} S$$

There is no noticeable meaning difference between the members of the above triplet. Incidentally, yilaa and yiwee may not be placed at the end of a sentence under the domination of PrepP, which fact would not

permit them to be treated in the same way as time adverbials. Compare the following:

E 26 (a) Yilaa gė yi be dabe-xo.
but: *Yi be dabe-xo yilaa.
'Then I will follow you.'

(b) Musuwee gė ye mommaye.
formerly *good*
'Formerly, it was good.'

The true sentence adverbials (+SA) have some common features in that they never become nouns and may not be followed by any connector. Lixidiboo and yixiliboo might be treated as one lexical item in view of their identical meaning and usage. In that case, the difference might be ascribed to a distant metathesis and a substitution. They are considered for the moment as separate morphemes, however, since no parallel morphophonemic processes are observable in other lexical items.

E 27 (a) [Fadė-li luu yilaa ṁale melee re ma fėėru-ya]$_S$
plant *c-nut* fm *man* fm hb *do*
[gė]$_{con}$ [{yixiliboo / lixidiboo}]$_{SA}$ ye mele faa-li ka se-wo
stay *occasionally*
yado lå feefele re ma wol fadė luu]$_S$
time *woman* *also*
'As for the planting of coconuts, it is men that usually do the job. However, occasionally women plant coconuts too.'

(b) [[Malboo]$_{SA}$ re sa mese]$_S$
'Maybe they died.'

(c) [Re sa yitoli-ya lepada-li xuyȯȯ wee]$_S$ [bo]$_{con}$
put *it between outrigger*
[[xadalboo]$_{SA}$ re be sulu-male]$_S$
'They put it in the outrigger so that they might look like three persons.'

(d) Yi te xula-yå lå [[xaree]$_{SA}$ xo be xaṁȯȯ mė yiṁȯȯ-li
ng *know* *that* *precede* *than*
yiiy babiyoro laa]$_S$
it *letter* dm
'I don't know by any chance you will be earlier than the letter.'

(e) [Yilaa faa-li makaa xiya-yi]$_S$ [bo]$_{con}$ [[yegėė]$_{SA}$ yi sa
that reason those mat-my

dabe-ya loxo ṁo yelusu]$_S$
dr *for a while*

'That is the reason for those mats of mine, because I indeed followed the ghosts for a while.'

(f) [Ye be tay buu doxo]$_S$ [gė]$_{con}$ [[xaramoo]$_{SA}$ xiic cox gė
ng *we (incl) just* fm

si be loxo]$_S$

'If he is not coming, let us fo alone in spite of that.'

4.4. PREDICATION

4.4.1. *CONSTITUENT STRUCTURE*

BR 5 Predication ⟶ NP ⌒ Aux ⌒ PP
BR 6 Aux ⟶ Pm (TA)
BR 7 PP ⟶ (Mv) VP

LEXICON

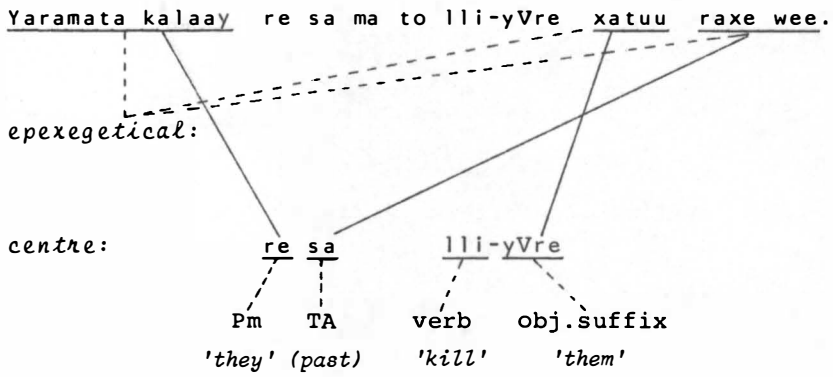
yi	*'I'*	+Pm, +SP, +SG
xo	*'you'*	+Pm, +HR, +SG
ye	*'he, she, it'*	+Pm, -SP, -HR, +SG, -Pro, -SP, -HR, -Ani, -SG
si	*'we(incl)'*	+Pm, +SP, +HR
xa	*'we(excl)'*	+Pm, +SP, -HR, -SG
xa	*'you(pl)'*	+Pm, -SP, +HR, -SG
re	*'they'*	+Pm, -SP, -HR, +Ani, -SG
be	*'will'*	+TA, +future, -definite, -immediate
be le	*'will'*	+TA, +future, -definite, +immediate
sa	*'past, perfective, stative, future'*	+TA, -future -future, +state, [+ __[+state]$_V$] +future, +definite, -immediate, -delayed, [+Imp...__], [+S gė [...__...]$_S$] <+sub>
sa le	*'will'*	+TA, +future, +definite, +immediate [+Imp...__], [+S gė [...__...]$_S$] <+sub>
saab	*'will'*	+TA, +future, +definite, +delayed
le	*'should'*	+TA, +future, +definite, +jussive

de	*'should not'*	+TA, +future, +definite, +jussive, +negative
te	*'not'*	+TA, +negative
ta	*'not'*	+TA, +negative, $[-\_\_[+state]_V]$
towee	*'will not'*	+TA, +future, -definite, -immediate, +negative
towee le	*'will not'*	+TA, +future, -definite, +immediate, +negative
teed	*'not yet'*	+TA, -future, +negative, +expectation
tay	*'no longer'*	+TA, -future, +negative, -expectation
ma	*'habitually'*	+Mv, [-Imp...__]
to	*'readily'*	+Mv
tė	*'just a moment'*	+Mv, [+Imp...__], $[+NP\ [...\_\_...]_{COM}]$
xa		+Mv
wa (Fal) wol (Mog)	*'again, also'*	+Mv
sar (Fal) sor (Mog)	*'a little'*	+Mv
ciil	*'still'*	+Mv, [-TA__] <+neg>
far	*'rather'*	+Mv
ṁooc	*'just, finally'*	+Mv
xal	*'only'*	+Mv
ṁucal	*'wishfully, voluntarily'*	+Mv
yixil	*'so much'*	+Mv
fasul	*'normally'*	+Mv
yuxul	*'early, in the first place'*	+Mv
ṁȯȯl	*'first, for the first time'*	+Mv
xaṁȯȯl	*'before'*	+Mv
rool	*'altogether'*	+Mv

4.4.2. *OBLIGATORY CATEGORY* NP

Ulithian predicational sentences may be said to be "centred" in the sense of Longacre (1964:35) in that they contain "bound subjects" (Pm) within their "predicates" (Aux⌒PP), and Pm must occur whether or not NP expresses subject on the surface. Furthermore, as will be seen later, verbs may mark the object category with an optional NP following. One deviation of Ulithian constructions from those given by Longacre (36), however, is that verbal manner particles (+Mv) may intervene freely between Aux and VP. For example,

E 28 *'Those people used to readily kill cats last year.'*



in which ma *'habitually'* and to *'readily'* are found between TA and the verb base.

In spite of the fact that noun phrases are optional on the surface and epexegetical in the sense of Longacre, I shall consider NP as central and obligatory in deep structures (see *BR 5*). The optionality of NPs in surface sentences is viewed as obligatory dropping of pronouns when they are not focussed (see 4.11.3. and *TR 11*). Some advantages in this approach are as follows:

(1) First of all, the agreement between NP and the related Pm is more simply formalisable, by copying the person, number, and animateness features of the NP on the Pm (*TR 1*). Thus a parallel treatment can be made of the appositive relations (a submember of "Paratactic" relations symbolised as ⌊⊣⊢⌋ in Nida 1964) existing between (a) and (b) in the following three pairs (in E 29, "surface" means a surface structure which has undergone *PR 14*):

E 29 (a) (b)

i) NP : following Pm

surface: Yaramata kawee re sa tagi. *'Those people cried.'*

deep: yaramata kawee Pm sa tagi
NP

surface: Re sa tagi. *'They cried.'*

deep: yiir Pm sa tagi
NP

ii) NP : preceding object suffix (Os)

surface: Feefele wee ye dabe-yVre yaramata kawee.

'The girl followed the people.'

deep: Feefele wee Pm dabe-Os yaramata kawee
NP

surface: Feefele wee ye dabe-yVre.

deep: Feefele wee Pm dabe-Os yiir
NP

iii) NP : preceding attributive marker (At)

surface: waa-yire yaramata kawee. *'those people's canoe'*

deep: waa-At yaramata kawee
NP

surface: waa-yire *'their canoe'*

deep: waa-At yiir
NP

By providing the surface gap with a deep pronoun, not only is a symmetrical structure obtained, but there is also no need to introduce in the place of NP a dummy symbol with the features of person, number, etc. On the other hand, the obligatory deletion of unfocussed pronouns by no means violates the "unique recoverability" condition (e.g. Chomsky 1965: 177), since the deleted pronouns may be recoverable by virtue of their strict identify of feature composition with the elements which have copied their features. The deletion of the unfocussed pronouns may be justified by the actual fact that, once their total features have been copied by the categories in (b) above, they become semantically entirely redundant.

(2) The obligatory postulation of NP leads to an economical and non-*ad hoc* account for the derivation of focussed pronouns. For example, by considering the deep structure of re sa tagi *'they cried'* as yiir Pm sa tagi, a focussed form like yiir melee re sa tagi *'they are the ones who cried'* can be differentiated by a single category (Emp) from re sa tagi.

E 30 Re sa tagi <== yiir Pm sa tagi
Yiir melee re sa tagi <== Emp yiir Pm sa tagi

If pronouns were not postulated in the deep structure, the two sentences would be different in two categories, i.e. the second sentence in E 30 would have Emp and NP both of which are lacking in the first. This would be both uneconomical and counterintuitive. The counterintuitiveness would be compounded when the pronouns focussed are the object of V or attributive to N, because in this case the focussed pronouns must appear at the front position of the sentence on the surface. Unless deep structure pronouns are postulated in the object and attributive positions, there would be no easy way of accounting for the appearance of the pronouns in front when they are docussed. Observe a parallelism in the three sets of examples in E 31 where deep structure pronouns are postulated.

E 31

	surface		*deep*
(a)	Yi sa mogoyo. *'I ate.'*	<==	gaag Pm sa mogoyo
	Gaag melee yi sa mogoyo. *'I am the one who ate.'*	<== Emp	gaag Pm sa mogoyo
(b)	Re sa dabe-yeyi. *'They followed me.'*	<==	yiir Pm sa dabe-Os gaag
	Gaag melee re sa dabe-yeyi. *'I am the one whom they followed.'*	<== Emp	yiir Pm sa dabe-Os gaag
(c)	Ye pallege yiṁa-yi. *'My house is big.'*	<==	yiṁa-At gaag Pm pallege
	Gaag melee ye pallege yiṁa-yi. *'It is I whose house is big.'*	<== Emp	yiṁa-At gaag Pm pallege

(3) Finally, the proposed treatment gives a greater generality in the deep structure in that pronouns may now be allowed to occur wherever an NP which is their dominating category may appear. Thus there is no need to exclude pronouns in certain occurrences of NP in base rules, which would be necessary in a possible alternative treatment in which NP is introduced optionally in BR 5.

4.4.3. *SO-CALLED TOPIC-COMMENT*

Some linguists (e.g. Elbert, Martin) have labelled as topic-comment sentences similar to the following ones, in which the first noun phrase has nothing to do with the following Pm. However, in this treatment,

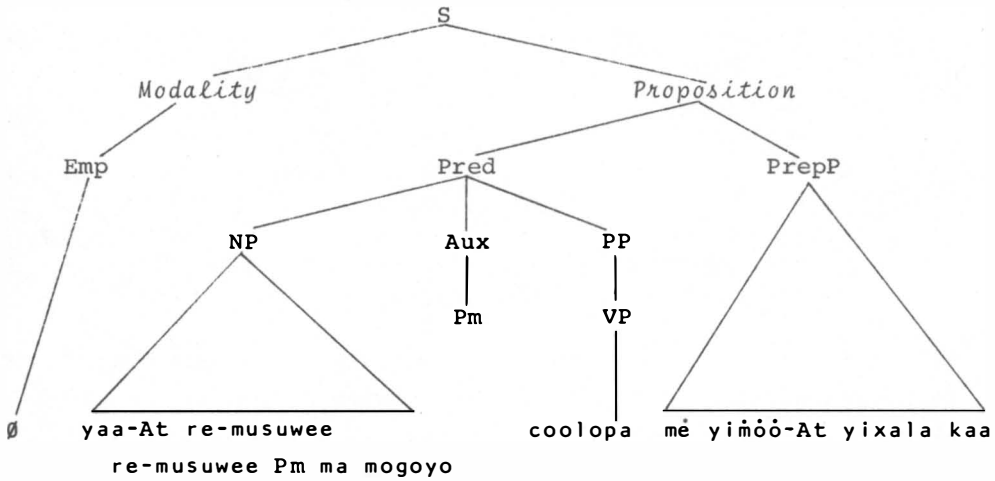
they are not directly derivable from the base rules given but by means of a focus transformation.

E 32 (a) Re-musuwee ye coolopa yaa-yire ma mogoyo mė
ancients pm *many* Cl *eat* *from*
yiṁòò-li yixala kaa
before *nowadays*
'As for the people of old days, they ate more than the people of today.'

(b) Cayėlapa-la yilaa ye towee yoxo se-wo mayiyel.
width-its fm pm ng *possible one*
'As for its width, it is less than a mile.'

In E 32 (a), the subject NP which is related to the Pm (ye) is yaa-yire ma mogoyo *'their eating'* and re-musuwee is related to the At (yire) in yaa-yire ma mogoyo. Thus the deep structure position of re-musuwee is after the At as will be seen in E 33. Its preposition is effected by transformation with focus marker Ø (see 4.11.3.). The deep structure P-marker is given below with many abbreviations.

E 33



For the processes to derive E 32 (a) from E 33, see *TRs 11, 13, 17, 21, 37,* and *PR 14.*

E 32 (b) poses a somewhat different question. Cayėlapa-la *'its width'* is neither the subject of the sentence nor the object of the verb, nor an attributive to any other noun in the deep structure. It is obvious that se-wo mayiyel is the subject NP, with its verb being yoxo.

It is proposed here that in the deep structure cayėlapa-la is dominated by the node of PrepP along with verbal preposition (Vpr) gali *'to'* and that a focus transformation preposes cayėlapa-la while deleting the objectless gali. Thus the deep structure of E 32 (b) is something like the following:

E 34 Emp[[se-wo mayiyel]$_{NP}$ [Pm]$_{Aux}$ [yoxo]$_{PP}$]$_{Pred}$ [gali cayėlapa-At yiiy]$_{PrepP}$

The proposed solution has been motivated by the fact that there is no meaning difference between E 32 (b) and E 34 and this solution coincides with one of my basic hypotheses - that any occurrence of NP, regardless of the categories dominating it, may be focussed and preposed (see *TRs 11, 13, 21* and *23*).

4.4.4. *AUXILIARY* (Aux)

Predication is expanded into three constituents in BR 5 in view of their relatively equal interdependence. For example, Pm which is a member of Aux copies the features of NP (i.e. agrees with NP on the surface), while acting as the marker of predication. TA, which is an immediate constituent of Aux, is dependent on Pm, never occurring if Pm is not present. Aux is one of the formal markers differentiating Predication (by its presence) from Identification (by its absence).

E 35 (a) Gaag yilaa yi sa tampolo. (Predication)
fm pm ta *chief*
'I have become Chief.'

(b) Gaag yilaa tamolo. (Identification)
'I am Chief.'

Another formal marker is the predominant word order. In Predication, the subject NP occurs always before Pm if an object follows the verb. If the object NP is focussed, it precedes the subject.

E 36 Xatuu wee Ø pese lee ye sa lli-ya.
cat dm fm *dog* dm *kill*
'This dog killed the cat.'

On the other hand, the subject comes after the predicate NP in Identification unless it is a pronoun or focussed (4.5.). A third marker is the difference in constituents.

4.4.5. *PREDICATION MARKERS* (Pm)

As regards the representation of predication markers in deep

structures, a question may be raised as to whether the constituent **Pm** should be postulated in deep structures as in *BR 6* or whether predication markers are to be introduced only by means of a kind of "segment transformation" in the light of the features of the preceding **NP** and the following **V**, as has been proposed, for example, by Jacobs and Rosenbaum (1968:82 *et seq.*) concerning suffixes and articles in English. The same question may be posited regarding such constituents as **Os** (object suffix), **At** (attributive marker), and **Dm** (demonstrative enclitic). The second alternative might be justified on such grounds as the elimination of syntactically predictable and semantically redundant categories from the base subcomponent. In spite of the possibility of this alternative, I propose to set up the constituent **Pm** (and also **Os**, **At**, and **Dm**) in the base subcomponent. These constituents which are viewed as having no syntactic features of their own will copy certain features of the preceding **NP**. The following justification may partly support this proposal:

(1) The creation of a segment corresponding to **Pm** only by way of transformation would be unsatisfactory from the technical point of view, since the segment to be created would have to be separated frequently from the main verb by **TA** particles and **Mv** (verbal manner) particles, and the procedure would be rather complicated in that the segment would be created in the light of the features of both the verb and the related **NP**.

(2) On the surface at least, **Pm** has an important grammatical role in its functioning as the grammatical subject, while the related **NP** takes a rather epexegetical role. Thus, in sentences without the **NP**, which are of high frequency of occurrence, **Pm** is the only element which indicates the subject relation to the sentences, and no further information on the grammatical relation need be added if the **NP** is to be provided. Besides, the obligatory nature of **Pm**, compared to the optional presence of **NP** on the surface, makes it appear unreasonable to introduce **Pm** by transformation. Furthermore, the existence of **Pm** formally marks the existence of Predication. In other words, although **Pm** might be interpreted as semantically empty in that it copies the features of **NP**, it still has its own grammatical meaning as the predication marker.

(3) Other conditions being equal, explicitness is preferred even at the expense of a minor redundancy. **Pm** consisting of a perfect paradigm in terms of person and number has perhaps the highest frequency of occurrence in any texts of Ulithian. To describe the existence of such an important paradigm only at a transformational section does not seem to contribute to explicitness.

(4) Finally, I shall henceforth call **Pm** a grammatical formative rather

than a category in that it does not directly dominate lexical items in the deep structure but copies the features of **NP** and then a phonological rule (*PR 14*) realises the features as base forms.

The above discussion applies also to **Os** (object suffix) and **At** (attributive marker).

4.4.6. *TENSE-ASPECT PARTICLES (+TA)*

There is no clear-cut formal demarcation between tense and aspect in Ulithian. Moreover, it seems more advantageous to treat such aspect particles as **ma** *'habitually'*, **to** *'readily'* together with verbal manner particles than to treat them as a subset of the category **TA**. In particular, **ma**, **to**, etc., are freely interchangeable with other manner particles in terms of order, but they never precede any part of **TA** as defined here.

E 37 (a) **Re sa wa ma mogoyo.**
ta Mv hb
'They would again eat.'

(b) **Re sa ma wa mogoyo.**

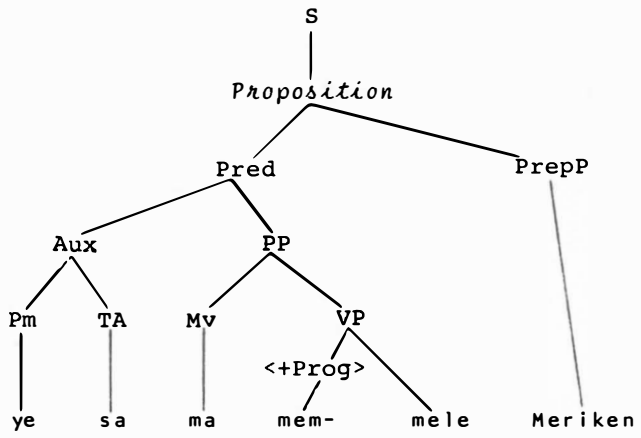
but: ***(c) Re ma sa wa mogoyo.**

On the other hand, "progressive" aspect is realised only in the form of reduplication of verbs.

E 38 **Yi be le ma mommogoyo.**
Prog-*eat*
'I will be eating.'

Thus the members of **TA** are determined in such a way that they necessarily have "tense" and/or "aspect" meaning and none of them may be preceded by a manner particle (**+Mv**). The relation between **TA**, **Mv**, and "progressive" may be observed in the following example and its surface structure P-marker (overleaf):

E 39 Ye sa ma mem-mele Meriken.
ta Mv Prog *live*
'He used to be living in America.'



be and be le *'will, shall'*

Be and be le are characteristic of futurity, the latter implying more immediate action than the former. Both differ from the sa and sa le *'will, shall'* having futurity meaning in that the latter pair expresses a definite idea while the former rather expresses probable or hypothetical idea. TABLE VII shows the difference of be and be le from the rest of the positive TA particles.

TABLE VII

FEATURES OF POSITIVE TENSE-ASPECT PARTICLES

	sa(A)	be	be le	sa(B)	sa le	saab	le
future	-	+	+	+	+	+	+
definite	(+)	-	-	+	+	+	+
jussive	(-)	(-)	(-)	-	-	-	+
delayed	(-)	(-)	(-)	-	-	+	(-)
immediate	(-)	-	+	-	+	(-)	(-)

Examples in which be and be le appear follow overleaf.

E 40 : be *'will, shall (probable, not immediate)'*

(a) Yi be loxo Yasor walsuu.
go tomorrow
'I will go to Yasor tomorrow.'

(b) Xa be molo gė xa be buu doxo.
finish then come dr
'When you(pl) are through, come here.'

(c) Xo be buu doxo gė xa sa xula-ya melee xa be fėėru-ya.
know-it that we(excl) do-it
'If you come, then we(excl) will know what we are going to do.'

E 41 : be le *'will (immediate)'*

(a) Yi be le loxo.
'I am ready to go.' or *'I am going.'*

(b) Xaree ye be le buu doxo gė gaag yi towee loxo.
by-any-chance I ng
'If he is ready to come, I won't go.'

(c) Yi be le bii diye yireete ge yi saab bii daxe.
go dr *home* dr
west east
'I am ready to go home, and I will come back after a while.'

(d) Re be le kaya gali-xo yalo-li Meriken.
teach to -you sound
'They are ready to teach you English.'

Sa (see PR 18 for the form ya)

The form sa may be broken down into the following four semantic categories:

(1) Perfective action

E 42 (a) Ye sa mese.
die
'He died.'

(b) Ye siilaye yaa-yi sa babiyoro.
long-ago write-letter
'I wrote a long time ago.'

(c) Si sa ma mele Meriken.
hb *stay*
'We(incl) used to stay in America.'

(d) Yi sa se-male senseye.
'I was a teacher.' or *'I became a teacher.'*

(e) Ye sa pallege yaa-mu tepugi-yeyi.
big help
'You helped me a lot.'

(2) Stative

E 43 (a) Re sa rraye.
happy
'They are happy.'

(b) Yi sa gucu yiree-li pese wee.
tired at
'I am tired of the dog.'

(3) Imperative

E 44 (a) Si sa loxo yixalaay.
go over-there
'Let's go over there.'

(b) Si sa la yegaage.
go work
'Let's go to work.'

(c) Xo sa kaya gali-yeyi xaree ye be buu doxo xaree ye towee buu
tell to me if come dr
doxo.
'Let me know whether he comes or not.'

(4) Futurity

E 45 (a) Xeel xo be cuya mė cuxu gė yiiyaa melee xo sa loxo mė yiiyage.
leave from fm *there*
'When you leave Truk, where will you go from there?'

(b) Re be buu doxo gė ye sa kapatapata gali-yVre.
talk to
'When they come, she will talk to them.'

(c) Fėtėėtė gė yi sa kaya gali-xo kofa-la.
later tell to you result-its
'I will tell you about it later.'

(d) Si be mogoyo gė si sa la fitaa.
eat go fishing
'After eating, let's go fishing.'

(e) Xaree ye te yoxo yaa-yi faga logo wȯȯ-li faluya-yi
possible *send* dr *on, to island-my*

gė yi sa faga logo wȯȯ-li Sayipel.
'If I can't send my address to this island, then I will send it to you to Saipan.'

Of the above, (1) and (2) are definable in terms of the features of the following verbs. In the meaning of imperative in (3), sa occurs only with 1st pl.(incl), 2nd sg., and 2nd pl. subjects. Thus, a sentence like

E 46 Xo sa mogoyo.

is ambiguous in that there are two ways of interpreting it according to (1) and (3).

A. *'You have eaten.'*
B. *'Eat!'*

The meaning of perfective action and that of imperative are so different as to raise the question whether two different lexical items (sas) happen to be homophonous. Sa in imperative is closer in meaning to be which is a futurity particle than to sa with the meaning of perfective action. Compare the following:

E 47 (a) Xo sa mogoyo. *'Eat! (definite)'*
(b) Xo be mogoyo. *'Eat! (indefinite)'* (or *'You will eat.'*)

Note also that sa in (3) is closer to be than to sa in (1) in that sa in (3) may be followed by the morpheme le (immediateness) as is the case for be, while sa in (1) may not.

E 48 (a) Xo sa le loxo.
'You go immediately!'

(b) Yi be le loxo.
'I am ready to go.'

(c)*Yi sa le loxo.

A very similar situation can be observed in (4) in which sa with the futurity meaning occurs in conclusive clauses following the corresponding future conditional clauses. In this case also, sa is closer to be in meaning than to be in (1), in that sa in (4) and be share the feature <+future>. Compare the following:

E 49 Xo be buu doxo gė xa {(a) sa / (b) be} xula-ya melee xa be fėėru.
Pm *know* *that* *do*

(a) *'If you come, we will (definitely) know what we will do.'*
(b) *'If you come, we will (probably) know what we will do.'*

As in the case of imperative, sa in (4) may be combined with le in the same way as be.

E 50 Xaree ye be te buu doxo gè ye {(a) sa le / (b) be le} mese feefele lee.

(a) *'If he doesn't come, the girl will die right away.'*

(b) *'If he doesn't come, the girl may die.'*

From the examples given thus far, it is clear that the sa in (3) and that in (4) may be combined in view of their common feature <+future>. Then it can be said that sa with <+future> may occur only in the environment of Imp...__ and S⌢con⌢[...__...]S. It never occurs in other positions including an independent or embedded sentence and a clause following a conclusive clause.

E 51 (a) Ye {be / *sa} mese.

'He will die.'

(b) [Ye be buu doxo]$_S$[gè]$_{con}$ [yi dipali-ya[là yi {be / *sa}
want *that*

xapatapata gali-yVre]$_S$]$_S$
talk

'When he comes, I'd like to talk to them.'

(c) [[Xaree ye towee buu doxo]$_S$[gè]$_{con}$ [yi {be / sa} loxo]$_S$]$_S$

[yi {be / *sa} weri-ya]$_S$

'If he won't come, I'd like to go and see it.'

In *conditional* clauses, only sa of <-future> may occur as in the case of independent clauses.

E 52 (a) Xaree ye sa buu doxo gè yi {be / sa} loxo.

'If he has come, I {may / will} go.'

(b) Xaree ye sa buu doxo yiree-li raxe wee gè yi {be / sa} loxo Yulidiy.
year dm
'last-year'

'If he had come last year, I {might / would} have gone to Ulithi.'

As may be noticed in some of the above examples, the difference between the semantic range of sa with <+future> and that of be is the presence in the former and the absence in the latter of "definiteness". Thus, according to my informant (Dargos), (a) and (b) in E 53 differ in such a way that if the speaker uses (a) and actually does not come back,

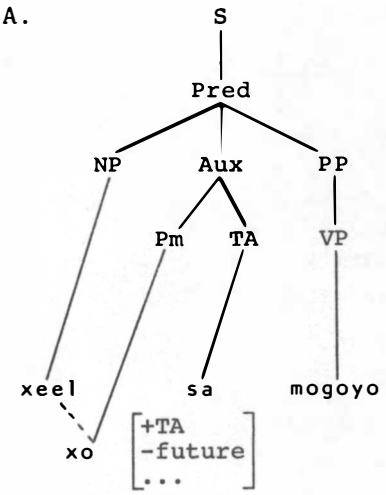
the hearer normally gets mad, which is not the case if the speaker uses (b).

E 53 Yi dipali-ya yi be tè loxo gè yi {(a) sa / (b) be} buu doxo.
want *for-a-moment*

(a) *'I want to be away for a moment, and then (surely) come back.'*
(b) *'I want to be away for a moment, and then I may come back.'*

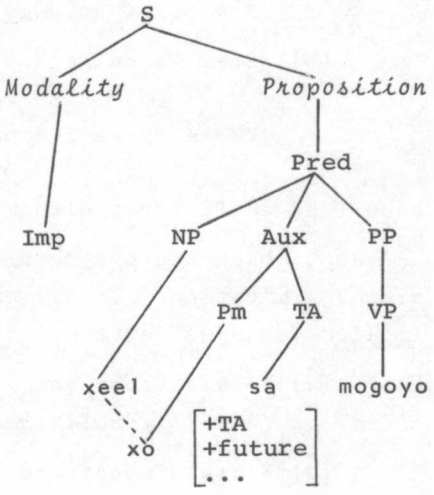
The major problem involved in the above discussion is how to interpret sa with <+future>, i.e. whether it is to be given a separate lexical entry in line with sa with <-future> and be, or whether it is a contextual variant of the single sa in spite of the wide meaning difference between the two variants. The former solution seems to be unsatisfactory in view of the distributional limitation of the sa in question, i.e. it occurs only in imperative and conclusive clauses, where the other kind of sa never so occurs. Therefore, the latter interpretation will be followed, and the differences of meaning according to the contexts will be specified in the lexical entry of a single sa as roughly specified in the Lexicon under 4.4.1. Following this interpretation, the surface form ambiguity of E 46 may be accounted for by the underlying P-markers in E 54.

E 54 A.



Xo sa mogoyo.
'You have eaten.'

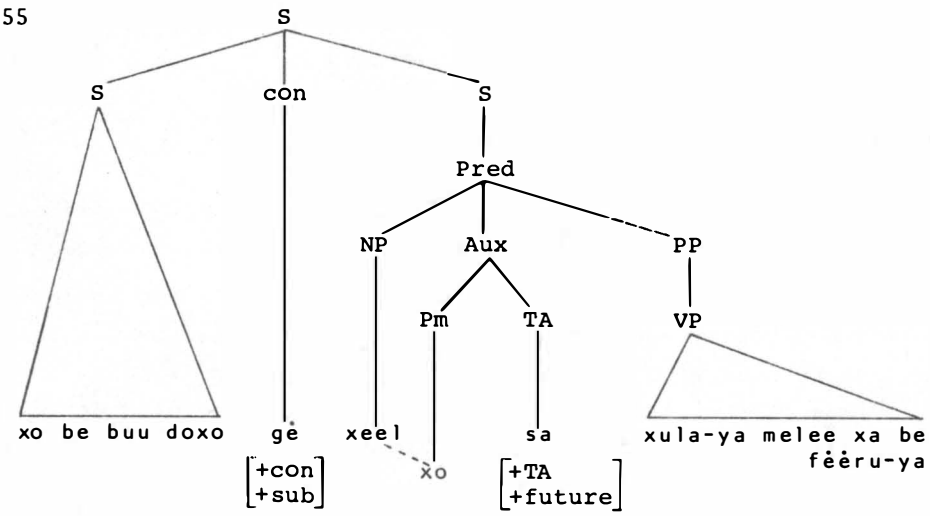
B.



Xo sa mogoyo.
'Eat!'

On the other hand, E 49 (a) has the following deep structure:

E 55



sa le

As indicated above, sa le occurs only in imperative and conclusive clauses. Its meaning is similar to be le except that the latter lacks "immediateness" (see TABLE VII).

E 56 (a) Xo sa le loxo.
'You go right away!'

(b) Xaree ye be te buu doxo gė ye sa le mese feefele lee.
come die girl
'If he doesn't come, this girl is ready to kill herself.'

saab (see PR 18 for the form yaab)

saab, which has the meaning of futurity, occurs without any distributional limitation. It differs from sa with <+future> and be in that it implies "delayed" action.

E 57 (a) Yi saab rogrogo.
'I will finally hear.'

(b) Yi saab mogoyo fėtėėtė.
later
'I will finally eat after a while.'

(c) Ye saab loxo walsuu.
'He will finally go tomorrow.'

saab occurs also in imperative and and in conclusive clauses as in the case of the sa having the futurity meaning.

E 58 (a) Si saab loxo.
'Let's go soon.'

(b) Ye be bii daxe gė xa saab la pulugu-ya.
go turn-over
'When it comes up, then go and turn it over.'

(c) Fėtėėtė gė re saab buu doxo.
later
'After a while they will gradually come.'

(d) Melwee ye sa rucuppugu loxo gė ye saab mooc buu doxo.
dark *just*
'When it was dark, he could gradually come back.'

In view of its inherent features, saab cannot be followed by le (immediateness); it does not occur with a time word indicating past.

E 59 (a) *Yi saab le rogrogo.
hear

(b) *Yi saab xola-ya raxe wee.
arrive *last-year*

le

Le is a kind of "jussive" in its implication of "mild imperative" when the subject is a second person. However, it occurs also with all the other persons.

E 60 (a) Xo le loxo.
'You should go.' or *'Please go.'* or *'You are to go.'*

(b) Si le loxo?
'Should we go?' or *'Are we to go?'*

(c) Ye le loxo.
'He should go.' or *'He is to go.'*

de

De is the negative form of le.

E 61 (a) Xo de yegaage.
'You shouldn't work.'

(b) Kamaaxo-ya bo xo de pugu diye.
watch *fall* dr
'Watch out lest you should fall.'

(c) Xaree si be weri-ya gè xo de lli-ya.
see *kill*
'If we(incl) see it, you shouldn't kill it.'

(d) Xo towee loxo bo ye de la lli-xo.
'Don't go lest he should kill you.'

(e) Yi be xadduyi-ya bo ye de rale gè yi be le loxo.
give-milk *day*
'I'd like to give him milk, because I have to go before it dawns.'

te and ta

The two negative particles, te and ta, contrast when used with a very limited set of verbs. Otherwise, te alone occurs.

E 62 (a) Ye te mele yixaa. *'He doesn't live here.'*
Ye ta mele yixaa. *'He is not here.'*
Cf. Ye tay mele yixaa. *'He is no longer here.'* or *'He doesn't live here any longer.'*
Ye teed mele yixaa. *'He hasn't been here.'*
'He hasn't lived here yet.'

(b) Ye te luxu. *'It's not tied.'*
Ye ta luxu. *'It cannot be tied.'*
Cf. Ye tay luxu. *'It's not been tied any longer.'*
Ye teed luxu. *'It's not been tied.'*

(c) Ye te mada. *'It's uncooked (raw).'*
Ye ta mada. *'It's not cooked (not cooked well).'*
Cf. Ye tay mada. *'It's no longer cooked.'*
Ye teed mada. *'It's not been cooked yet.'*

(d) Ye te made. *'He is not full.'*
Ye ta made. *'He has not been full.'*
Cf. Ye tay made. *'He is not full any longer.'*
Ye teed made. *'He has not been full yet.'*

(e) Re te mese. *'They are not dead.'*
Re ta mese. *'They do not die.'*
Cf. Re tay mese. *'They no longer die.'* or *'They are no longer dead.'*
Re teed mese. *'They haven't died.'* or *'They are not dead yet.'*

When te and ta contrast as in the above examples, te is generally the description of the state, while ta indicates temporal action. If

no contrast exists, te describes either the state or the action according to the feature of the following verb.

E 63 (a) Ye te buu doxo. *Ye ta buu doxo.
<+action>
'He does not come.'

(b) Ye te malawa. *Ye ta malawa.
<+state>
'He is not alive.'

Now the problem is whether te and ta are really separate morphemes or simply co-allomorphs of each other, the occurrence of which is conditioned by the features of the following verbs, i.e. whether the meaning difference in each pair in E 62 (a-e) is ascribed to the negative particles or the verb. My tentative view is that te and ta constitute a single morpheme and the occurrence of one or the other is conditioned by the different features (or different readings) of the same verbs. The limited set of verbs which may occur with ta must be so specified in the lexicon. This proposed solution may be against Nida's (1948:414) principle to place more importance on overt differences than on covert, but it agrees with Fillmore's emphasis on the importance of covertness (1968:3). The solution proposed is obviously simple in description. It also has the advantage of treating the distributional limitation of ta at a level not higher than the allomorphic. Since ta occurs nowhere else than before a verb with the feature of temporal action, it is natural that it does not appear in NP. Te is certainly of high frequency of occurrence. More examples follow.

E 64 (a) Ye te ma paaga-li yado gė xa ma mogoyo màyi.
hb *all* *time* *breadfruit*
'Not always we eat breadfruit.'

(b) Ye te pallege gė ye kkela.
big *strong*
'He is not tall but strong.'

(c) Yi te dipali-ya lå ye be yule xacii.
want *that* *drink liquor*
'I don't like him to drink alcohol.'

(d) Si te xula-ya melee si be le fėėru-ya.
that *do*
'We(incl) don't know what to do.'

(e) Ye te yoxo yaa-yire loxo.
possible
'They cannot go.'

(f) Te yoor se-male yeliwici kawee là ye capara là
[toor] *child* *trust*
ye sa mese ṁale lapa wee.
die *old-man*
'None of the boys believed that the old man had died.'

towee and towee le

Towee is the negative particle corresponding to be and towee le is that corresponding to be le.

E 65 (a) Si towee wol fèèru-ya yegaage wee.
again *work*
'We will not do the work again.'

(b) Xo towee loxo.
'Don't go.'

(c) Xo towee ṁucal loxo?
inclined
'Wouldn't you like to go?'

(d) Xaree ye be buu doxo gè gaag yi towee loxo.
'If he comes, I will not go.'

(e) Towee le loxo.
'Don't go.'

(f) Ye towee le loxo feefele wee.
'That girl will not go.'

(g) Xo mammagi-ya bo yi towee le rogrogo?
'Do you think that I won't hear?'

teed

Teed is the negative counterpart of sa having the <-future>. Examples follow.

E 66 (a) Yi teed weri-ya cox.
'I didn't see him (yet).'

(b) Medaa melee xo teed fèèru-ya waa wee yiiyage?
make *canoe* dm *(anaphoric)*
'Why haven't you made the canoe?'

(c) Ye wò cox fèèru-li melwee xo teed fèèruya xala-ca.
look-like *make* *that* *food-our*
'It seems that you haven't cooked our food.'

(d) Ye teed yoor melee ye wele mė yiree-li sukuun lee yaa-mami.
exist that change
'Nothing has changed here in our school.'

(e) Ye teed siilaye yaa-la petėxo.
long rain
'Not long ago it rained.'

(f) Teed yoxo sulu raxe mė yiiyage gė ye sa mese malaa tama-yi.
possible, year from it that father-my become
'No more than three years thereafter, my father died.'

(g) Yi teed gucu.
'I am not tired.'

tay

Tay has the approximate meaning *'no longer'*.

E 67 (a) Malboo re tay mele yiiyage.
maybe stay there
'Maybe they will no longer be there.'

(b) Ye tay yoxo yaa-yi loxo.
possible
'It is no longer possible for me to go.'

(c) Tay yoor melee ye be ciil yoxo lå ye be fėėru-ya.
exist that still that do
'It is impossible for him to do any more.'

(d) Tay mele boot wee waa-yi.
'My boat has been missing.'

Correlation between positive and negative TA *particles*

For some TA particles, there exists a positive-negative symmetry; for others, none. Examine the following.

E 68

	positive	*negative*
(a)	be	towee
(b)	be le	towee le
(c)	le	de
(d)	sa <-future>	teed
(e)	sa <+future>	

	positive	*negative*
(f)	sa le	
(g)	saab	
(h)		tay
(i)		ta
(j)		te

In E 68 (a-d), the single feature <+negative> differentiates the two sets, as shown below.

E 69 (a) Xo be mogoyo? *'Will you eat?'*
Yi towee mogoyo. *'I won't eat.'*

(b) Ye be le loxo. *'He is ready to go.'*
Ye towee le loxo. *'He is not going.'*

(c) Xo le loxo. *'You should go.'*
Xo de loxo. *'You shouldn't go.'*

(d) Xo sa weri-ya? *'Have you seen it?'*
Yi teed weri-ya. *'I haven't seen it.'*

Xo sa gucu-li pese lee? *'Are you tired of this dog?'*
Yi teed gucu-li pese lee. *'I'm not tired of this dog.'*

For the rest of the TA particles, no one-to-one correspondence may be found. Te and ta, however, may be viewed as corresponding to zero in that no TA or other formative may be replaceable for te or ta with the single difference of <+negative> in meaning.

E 70 (a) Ye mele yixalaay. *'He is over there.'*
Ye ta mele yixalaay. *'He is not over there.'*

(b) Ye mele yixaa. *'He lives here.'*
Ye te mele yixaa. *'He does not live here.'*

The only way to negate sa having the <+future> (E 68e) is by means of towee, and sa le by means of towee le, which may be possible because they all share <+future>.

E 71 Xo sa yegaage. *'Work!'*
Xo towee yegaage. *'Don't work.'*

The negative counterpart of saab (E 68g) may be a combination of saab + a negative particle. As will be seen, a sequence of TA particles has to be handled by transformation.

E 72 Ye saab tay yegaage.
'He will finally stop working.'

The positive counterpart of tay (E 68h) is not clear, but semantically

Mv particle ciil *'still'* is closely related to tay.

E 73 (a) Ciil yoor màyi? *'Is there still breadfruit?'*
Tay yoor màyi. *'There is breadfruit no longer.'*

(b) Re ciil masèrè? *'Do they still sleep?'*
Re tay masèrè. *'They don't sleep any longer.'*

The asymmetry in the paradigmatic distribution of TA particles suggests that all of them, both positive and negative, should be given separate lexical entries with relevant feature specification. This being the case, there will be no syntactic motivation to postulate the element NEG dominated by Modality, since each negative particle is sufficient to express the negative nature of the sentence and *TR*-triggering is out of the question. The occurrence of te in NP, in particular, in an Identification sentence may be handled by placing it under the domination of Mn (noun manner particle) as will be seen later.

E 74 (a) Te se-male senseye Tom.
'Tom is not a teacher.'

(b) Te gaag melee yi sa weri-ya.
'I am not the one who saw it.'

The negative particles other than te may not be modifiers (Mn) of a noun or noun equivalent in deep structures. The following examples are simply the case in which VP dominates NP, and the negative particles are dominated by Aux of Predication and not the constituent within the NP:

E 75 (a) Xo tay yeliwici yixalaa.
child now
'You are no longer a child now.'

(b) Ye towee xeel se-male yeliwici-li sukuun?
'Aren't you a student?'

A problem is raised as to the occurrence of the sequence of two TA particles in which the first member is positive and the second negative. That is, how are rule to be formulated to deal with such sequences occurring in some limited syntactic environments? Three such syntactic environments are found.

(1) In conditional clause

In independent or conclusive clauses, the sequence be(le) + a negative particle never occurs. However, it does occur in future conditional clauses.

E 76 (a) Ye be (le) te lapa mogoyo gė gaag yi towee mogoyo.
food *eat*
'If the food is not enough, I won't eat.'
Cf. Ye be lapa mogoyo. *'The food is enough.'*
Ye te lapa mogoyo. *'The food is not enough.'*
Ye towee lapa mogoyo. *'The food will not be enough.'*

(b) Ye be (le) tay buu doxo gė xiic cox gė si be loxo.
we *just*
'If he does not come any longer, let's go by ourselves(incl).'

(c) Yixlee re be (le) teed lli-ya paabiya wee gė re
kill *pig*
sa faga bo lawu-li yaramata wee.
give as Cl *person* dm
'If they don't kill the pig yet, they will give it to the person.'

(d) Xaree ye be towee tafaale doxo senseye wee gė xa
come-back *teacher* *we(incl)*
si be le loxo.
'If he won't come back, let's go.'

The only negative particle which cannot occur in this construction is de *'shouldn't'*. In the past conditional sentences, the theoretically possible construction sa + a negative particle does not appear. Instead, only a negative particle occurs.

E 77 Xaree re (*sa) te tafaale doxo lalow gė yilaa gė xa si loxo Yasor.
yester-day *then*
'If they had not come back yesterday, then we would have gone to Yasor.'

Occasionally the defective intransitive verb la *'become'* intervenes between the two particles (be (le) la + negative particle). In contrast to the non-occurrence of *sa + negative, the sequence sa la + negative is allowed.

E 78 (a) Ye be la te mese yaramata wee gė xa towee lėba-ya.
die Pm *bury*
'If the person is not going to die, don't bury him.'

(b) Xaree ye sa la tay masėrė gė si be loxo sukuun.
'If he was not going to sleep, let's go to school.'

(2) *In embedded sentences*

{Be / Be le} (la *'become'* + negative particle may also occur in embedded sentences. As in conditional sentences, de *'should not'* is the only negative particle which cannot follow be or be le, while sa + la + negative is allowed.

E 79 (a) Ye te ma mmale là ye be te xagi-ya.
possible *eat-it*
'He must eat it.'
(lit. *'it-is not usually possible that he will not eat-it'*)

(b) Ye towee mmale bo si be le towee mese.
'We(incl) must die.'

(c) Ye towee mmale yi be te weri-ya yiṁòò-li malaa ye be teed mese.
see *before* *that*
'I must see him before he dies.'

(d) Te yoor se-male là ye be te yiiy dèlè-li Lamdax gè
one-animal who *clan*
ye towee yoxo là ye be lilli-ya wolo.
possible *kill* *turtle*
'Nobody can kill a turtle unless he belongs to the clan of Lamdax.'

(e) Medaa melee ye fèèru-ya yaramata wee là ye sa la
what fm *do* *person* dm *who*
teed tafaale doxo.
come-back
'How come the man hasn't come back.'

(3) *In independent sentences*

In principle, the sequence of two TA particles is not allowable in independent sentences. Exceptions to this are found, however, i.e. saab may be followed by tay or te and sa by tay only.

E 80 (a) Yi saab te yegaage.
'I finally don't work.'

(b) Yi sa tay kkela.
'I feel weak.'

It is tentatively proposed that the examples in E 76-80 be derived by conjunction reduction transformation. Thus, for example, E 76 (a) has the underlying form.

E 81 $[[\text{ye be lapa mogoyo}]_S \begin{bmatrix}\text{gė}\\+\text{con}\\+\text{coord}\end{bmatrix} [\text{ye te lapa mogoyo}]_S]_S$

$\begin{bmatrix}\text{gė}\\+\text{con}\\+\text{subord}\end{bmatrix} [\text{gaag yi towee mogoyo}]_S$

and E 80 (a) will be derived from the following:

E 82 $[\text{yi saab yegaage}]_S \begin{bmatrix}\text{gė}\\+\text{con}\\+\text{coord}\end{bmatrix} [\text{yi te yegaage}]_S$

For detailed processes, see *TR 7*.

4.4.7. *VERBAL MANNER PARTICLES* (Mv)

Adverbials surrounding the verb may be grouped into two sets: preverbal and postverbal. The former is given the label **Mv**, and the latter **Int** (intensifier). **Mv** seems to be related to the whole **VP**, but **Int** only to the verb, as may be observed in E 83.

E 83 (a) Ye ma sar xattelee cox.

Mv Mv *subside* Int
a-bit *just*

'It would just subside a little.'

(b) Yeliwici wee ye sa to ffėsėgu-ya cox melwee sila-la.
child dm TA Mv *call* Int *that* *mother*
'The child just readily (to) called his mother.'

It is noted in E 83 (b) that **cox** precedes the object **NP**. Thus **Int** will be introduced as a constituent of **VP**. That is, **Int** is not at the same level as **Mv** in the deep structure. Many lexical formatives dominated by **Mv** and **Int** occur also with nouns (see 4.8.1.).

On the surface, the members of **Mv** may be juxtaposed in relative free order. This free co-occurrence might be handled by setting up some fixed order among them in a base rule, and then by permuting the elements by transformation as required. Or the same might be treated by specifying the free order in the base by means of commas with certain restrictions. In this study, however, only one slot (**Mv**) is set up in the base, and the juxtaposition of a number of manner particles will be introduced by conjunction reduction transformation. The main reasons for this treatment are as follows:

(1) As mentioned above, there does not seem to be any inherent ordering among the particles.

(2) Any length of juxtaposition may be allowed as far as it is semantically not inconsistent. Therefore, if all the slots are to be

lined up in the base, each having a single member formative, the grammar would be increased in complexity but possess less generality.

(3) The occurrence of any single particle will render the string perfectly grammatical.

(4) A parallel treatment can be made covering, along with Mv and Int, sequences of different adjectives following a noun, sequences of different verbs, sequences of different prepositions, etc. All these will simply be introduced by general conjunction reduction transformation.

Thus, for example, E 84 is interpreted as a derivation of E 85 (see *TR 6*).

E 84 Yi ṁooc wol kamaaxo-ya cox yixalaa.
again watch it just now
Mv Mv
'I finally (ṁooc) just watched it again just now.'

E 85 [yi ṁooc kamaaxo-ya cox yixalaa]$_S$[gė]$_{con}$[yi wol kamaaxo-ya cox yixalaa]$_S$

The following examples illustrate the relatively free order among manner particles:

E 86 (a) Ye {ta ma xa / ma xa to / xa to ma} fitaa.
'They would usually readily go fishing.'

(b) Ye {ciil ma / ma ciil} buu doxo.
'He still comes.'

(c) Ye towee {ma yixil / yixil ma} becikkara.
'It is not so hot.'

One problem is associated with the following words which are listed with <+Mv> in the Lexicon. Each of these words apparently is the combination of a base form plus an attributive suffix. However, they seem to have undergone some semantic change compared to the meanings possessed by the bases. In fasul *'normally'*, even a phonological change is noticed (cf. fase *'stone'* + li ==> [fasel]).

E 87 (a) yuxul *'early, in the first place'*
Cf. yuxu *'early rising'*

(b) ṁȯȯl *'first, for the first time'*
Cf. xaṁȯȯ *'to go ahead'*; yiṁȯȯ- *'before'*; *ṁȯȯ

(c) xaṁȯȯl *'before'*
Cf. xaṁȯȯ *'to go ahead'*

(d) rool *'altogether'*
Cf. roo loxo *'to go together'*

(e) fasul *'normally'*
Cf. fase *'stone'*

A problem is whether these words are really manner particles or whether they, along with their following elements, constitute NPs dominated by VP. If the former interpretation is followed, the combination base + At has to be disregarded. If the latter is to be followed, there does not seem to be any simple way of accounting for the free ordering between the above words and other pure manner particles such as ma, to, etc. In particular, when ma follows one of the above words as in E 88 (b) below, the problem becomes worse. It is in this situation that I tentatively consider the above words (E 87 a-e) as manner particles whose origins are preserved in fossilised fashion.

E 88 (a) Ye ma fasul buu doxo.

(b) Ye fasul ma buu doxo.
'He normally comes.'

Another minor matter to be noted is the repetition of ma as in the following examples (see *TR 34*):

E 89 (a) Ye ma fasul buu doxo.
Ye fasul ma buu doxo.
Ye ma fasul ma buu doxo.
'He usually comes.'

(b) Re sa ma rool fitaa.
Re sa rool ma fitaa.
Re sa ma rool ma fitaa.
'They usually go fishing altogether.'

Examples of the occurrence of Mv follow.

E 90 (a) ma *'habitually'*
i) Xo ma mogoyo yixaa?
eat
'Do you eat here?'

ii) Paxowo yilaa ye te ma yoor lagace-li fuluya.
shark fm *exist near* *island*
'There are no sharks near the island.'

iii) Ye ma wàárese yaa-la mogoyo.
hard his eating
'He scarcely eats.'

iv) Xaree re be le ma buu doxo gè gaag yi towee loxo.
'If they will (habitually) come, I will not go.'

v) Medaa melee xo te ma sutambaye xala-yi yiiyage?
prepare food
'Why haven't you prepared my food which you were supposed to?'

vi) Re sa ma la fitaa.
go fishing
'They went for their usual fishing.'

(b) to *'easily, readily, always'*

i) Ye to buu doxo yixaa.
here
'He readily comes here.'

ii) Ye to mese-li xacii.
die liquor
'He very often suffers from liquor.'

iii) Xa te ma to yixil liluwale-ya kofa-li raxe.
so-much think it result, about year, age
'We(excl) do not usually think so much about age.'

(c) tè *'for a while'* (limited to imperative and embedded S)

i) Yi dipali-ya yi be tè loxo gè yi sa buu doxo.
want go and come dr
'I want to go for a while and then come back.'

ii) Kagali-ya Doxormar bo ye be tè buu doxo.
tell that
'Tell Doxormar to come here for a moment.'

iii) Xo be kassiya-yVre xaree re be tè xagi-ya cox.
ask if eat just
'Ask them if they will eat for a bit.'

iv) Tè bii diye yirèètè.
'Go down to the village for a while.'

(d) xa *'usually'*

i) Yi sa xa rucuppugu.
'I was usually dark.'

ii) Ye xa to tagi.
cry
'He usually cries.'

(e) wa, wol *'again'*

i) Ciil yiitey melee ye be wa buu doxo?
still who
'Who else will come again?'

ii) Yi towee wa fèèru-ya yegaage wee.
ng *do* *work* dm
'I will not do the work again.'

iii) Yi rogrogo bo yeliwici kawee re wa yule tamaaxoo.
hear *children* *smoke cigarettes*
'I heard that the children smoked again.'

(f) sar, sor *'a little'*

i) Tèèt yawu ye sar lèllaye.
some string *long*
'Some strings are a little long.'

ii) Yi sa sar tay kkela.
ng *strong*
'I feel a little weak.'

(g) ciil *'still'*

i) Ciil yoor pèraase.
exist rice
'There is still rice.'

ii) Cale lee yilaa ye ciil becikkara.
water dm fm *hot*
'This water is still hot.'

(h) far *'rather'*

i) Yi be le far galle-xo.
give
'I'd rather give it to you.'

ii) Yi be le far loxo.
'I'd rather go.'

iii) Far xasi-ya doxo.
carry dr
'Rather bring it hither.'

(i) mooc *'just (now), finally, just in time'*

i) Yaramata wee ye ṁooc buu doxo.
person dm
'The man came just in time.'

ii) Yi ṁooc weri se-male tarṁale lå ye lli-yVre loxo.
see one boy that kill dr
'I just now saw a boy who killed them (animals).'

iii) Re sa wol ṁooc mogoyo faa-li se-wo.
under one-NuCl(gen.)
'They just ate again.'

iv) Ye be siilaye gė yi saab ṁooc xola-ya Hawaii.
long-time reach
'After a long time, I shall finally arrive in Hawaii.'

(j) yixil *'so much'*

i) Ye te yixil la becikkara xaamas gė te yixil la xarfoya.
hot very cold
'It becomes not very hot and not so cold.'

ii) Xa te ma yixil liluwale-ya kofa-li raxe.
think result, about year, age
'We(excl) do not think much about the year (age).'

(k) fasul *'normally'*

i) Yi ma fasul loxo.
'I usually go.'

ii) Ye ma fasul kkela.
'He is usually strong.'

(l) xal *'only'*

i) Re sa sėrė bo xal lixidi-ya bo ye be buu logo.
say leave dr
'They said, "Only leave him so that he may come in."'

ii) Ye xal mogoyo.
'He only eats!'

(m) ṁucal *'willingly'*

Ṁėcė laa ye ṁucal dabe-xica.
poor-one
'The poor one wishfully followed us(incl).'

(n) yuxul *'early, in the first place'*

Tamolo Moxmox ye te ma mmale là re be te yuxul xagi-ya
chief possible eat

suxufed mė yiree-li wolo yiṁòò-li malaa paaga-li
a-little from at turtle before that all

yaramata re be mogoyo.
people eat

'The Mogmog chiefs must eat a little bit of the turtle first before all the other people eat.'

(o) molo *'first, for the first time'*
Si be sėrė bo re-Yurop melee re ṁòòl buu doxo wòò-li Yulidiy.
say that fm *first on*
'Perhaps Europeans were the first who came to Ulithi.'

(p) xaṁòòl *'before'*
Si xaṁòòl fedexe.
'We fought before.'

(q) rool *'altogether'*
Re rool buu doxo.
'They came altogether.'

4.5. IDENTIFICATION

4.5.1. *CONSTITUENT STRUCTURE*

BR 8 Identification ⟶ NP⌢NP

4.5.2. *SYNTACTIC CHARACTERISTICS*

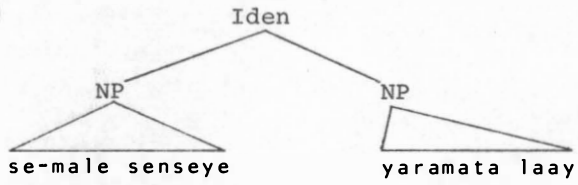
This sentence type consists of two obligatory NPs: the first is the predicate NP and the second, the subject NP. The grammatical relation existing between the subject and the predicate in Identification sentences may not be defined by the convention adopted by Chomsky (1965:71), since both NPs are dominated by the same category. Thus, order is more important than domination in the definition of the grammatical relation between the two NPs. The following convention may be adopted for this purpose:

(a) Subject-of Identification: $[NP\_\_]_{Iden}$

(b) Predicate-of Identification: $[\_\_NP]_{Iden}$

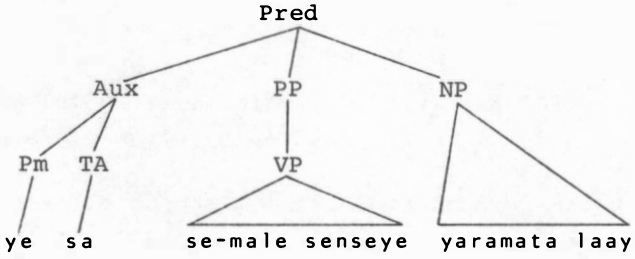
The fundamental factor that distinguishes Identification from Predication sentences is the lack of Aux in the former.

Identification (surface)



'That man over there is a teacher.'

Predication (surface)



'That man over there was a teacher.'

If the subject NP dominates a pronoun, that NP precedes the predicate NP. Another occasion in which the subject NP is preposed is when the focus transformation is applied. It will be observed that the focus transformation applies to any NP except the predicate NP of Identification.

Thus,

E 92 D-structure order

tèxtaa-li Saapan ṁale wee *'The man is a Japanese doctor.'*

predicate subject

←focus T

S-structure order

(a) Ṁale wee yilaa
subject fm

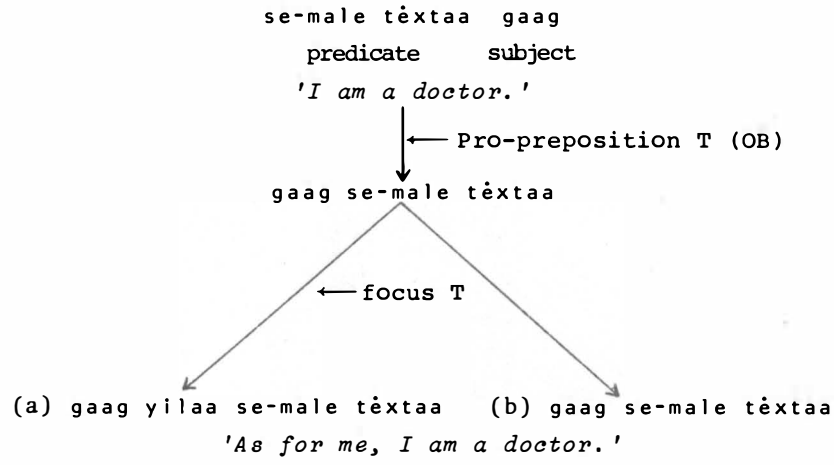
tèxtaa-li Saapan
predicate

(b) tèxtaa-li Saapan ṁale wee

'As for the man, he is a Japanese doctor.'

In case a pronoun subject is involved, the following processes are applied:

E 93



Further examples concerning the three types of subject-predicate arrangements on the surface are listed below.

E 94 NP_p NP_s (p = predicate; s = subject)

(a) [yaa-yi]$_{NP_p}$ [pinsana lee]$_{NP_s}$
Cl at dm
'This pencil is mine.'

(b) [boxata-yi]$_{NP_p}$ [boxata là re weri-ya lalow]$_{NP_s}$
village *that* *see* *yester-day*
'The village which they saw yesterday is mine.'

(c) [te yado-li fadè-li pèraase]$_{NP_p}$ [melee]$_{NP_s}$
ng *time* *planting rice* dmpr
'This is not the time for planting rice.'

(d) [yiitey]$_{NP_p}$ [re-còò kalaa ruwè-male là re dadare doxo]$_{NP_s}$
who *people* dm *two* *walking* dr
'Who are those two people coming this way?'

(e) [xal se-male]$_{NP_p}$ [lawu-yire paabiya]$_{NP_s}$
only Cl *pig*
'They have only one pig.'

(f) [yifaa]$_{NP_p}$ [yida-mu]$_{NP_s}$
name at
'What's your name?'

E 95 NP_s NP_p (NP_s = Pro)

(a) [gaag]$_{NP_s}$ [Ruxurimar]$_{NP_p}$
'I am Ruxurimar.'

(b) [gaag]$_{NP_s}$ [yiiyee]$_{NP_p}$
this-here

'Here I am.'

(c) [xeel]$_{NP_s}$ [bisi-yi]$_{NP_p}$
brother

'You are my brother.'

(d) [xaamiyi]$_{NP_s}$ [re-Saapan]$_{NP_p}$?

'Are you people from Japan?'

(e) [xeel]$_{NP_s}$ [yiitey]$_{NP_p}$?

'Who are you?'

(f) [gaag]$_{NP_s}$ [te se-male ṁale lapa]$_{NP_p}$

'I am not an old man.'

E 96 NP_s fm NP_p

(a) [re-cȯȯ kalaay re mele wȯȯ-li Yap]$_{NP_s}$ yilaa [re-Baalaw]$_{NP_p}$
people *stay on* fm

'Those people over there who live on Yap are Palauans.'

(b) [yiṁa laay]$_{NP_s}$ melee [yiṁa-li Yiduwecox]$_{NP_p}$
house fm

'That house (not this house) is Yiduwecox's.'

(c) [melee]$_{NP_s}$ yilaa [ccaa-yi]$_{NP_p}$
fm

'This is my blood.'

(d) [boto wee ye sa loxo]$_{NP_s}$ yilaa [waa-yi]$_{NP_p}$
fm

'The boat which has disappeared is mine.'

(e) [feefele lee lawu-yi]$_{NP_s}$ Ø [yaa-mu kuwin]$_{NP_p}$ [malaa
girl Cl fm Cl

lawu-mu]$_{NP_s}$ Ø [yaa-mami lulapa]$_{NP_p}$
fm *king*

'My girl is your queen, and your son is our(excl) king.'

As indicated in BR 4, an Identification construction may optionally be preceded by a sentence adverbial (+SA) or followed by a prepositional phrase (PrepP). Furthermore, a conjunction reduction TR (see TR 6) may generate a sequence of prepositional phrases.

E 97 [malboo]$_{SA}$ [yiir melee yeliwici-li sukuun]$_{Iden}$
maybe *child*
'Maybe they are students.'

E 98 (a) [gaag senseye]$_{Iden}$ [yiree-li sukuun lee]$_{PrepP}$
[yiree-li raxe lee]$_{PrepP}$
at, in *year* dm
'I am a teacher at this school this year.'

(b) [yaa-yi melee]$_{Iden}$ [mė (yiree-li) babiyoro kaa]$_{PrepP}$
Cl *from* *book* dm
'Among these books, this one is mine.'

(c) [Falmey melee se xalege]$_{Iden}$ [mė wòò-li Moxmox]$_{PrepP}$
family
Luxlap [mė wòò-li Soxlay]$_{PrepP}$ Mėroc [mė wòò-li Mageyage]$_{PrepP}$
'Falmey is a family from Mogmog, Luxlap from Soxlay, and Meroc from Mageyag.'

(d) [Yulidiy yilaa se-wo moda-li fuluya tottolo
group *island low*
pààcixcixi]$_{Iden}$ [lagace-li yikuwerėė]$_{PrepP}$ [mė tabo-li
small *near* *end*
diye Pasifik]$_{PrepP}$ [mė tabo laa meldowa]$_{PrepP}$
dr *west*
'Ulithi is a group of very small islets near the equator in the western part of the Pacific.'

(e) [yifaa saga-li sėpele]$_{Iden}$ [yiiyage]$_{PrepP}$?
about-it
'What is the spelling of it?'

(f) [gaag se-male còò-li yegaage]$_{Iden}$ [yixaa]$_{PrepP}$
person work
'I am a worker here.'

4.5.3. *APPOSITIVE RELATIONS*

A conspicuous feature of Ulithian construction types is the proliferation of appositive relations, chief among which are the classifiers - both possessive and numerative. Both these types of classifiers are similar in that they may be considered as noun phrases, each of which stands in apposition with a set of nouns, and the members of each such set relate to the classifier associated with the set - and are determined

by - syntactic features other than person and number. In this respect, the appositive relation existing between a classifier and its members is different from that existing between a predication marker (+Pm) or an object suffix (+Os) and its related NP. The latter relation is, as has been discussed, exclusively in terms of person and number plus <±animate>. As was mentioned, the latter relation will be handled by feature copying rules. The former (classifier-member), however, will be dealt with by the appositive nominalisation applicable to the base P-marker of the identification construction. Thus, for example, the following sentences in which possessive classifiers and related nouns appear may be represented as the rough deep structure P-markers in E 100. In E 99 (a), the classifier and its member are related as subject-predicate without undergoing a nominalisation. In E 99 (b), they are reduced to appositive, while in E 99 (c) they are furthermore embedded in a noun phrase.

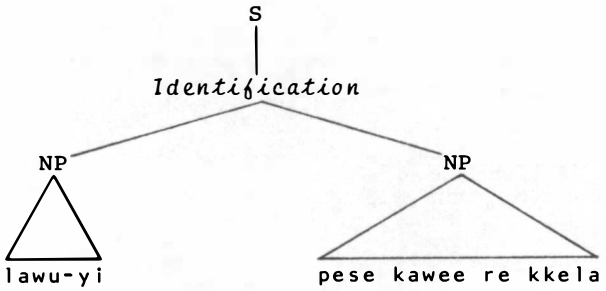
E 99 (a) [Lawu-yi]$_{NP}$ [pese kawee re kkela]$_{NP}$
Cl *-my* *dog* *strong*
'Those strong dogs are mine.'

(b) Re mommaye [lawu-yi pese kawee]$_{NP}$
good
'Those dogs of mine are good.'

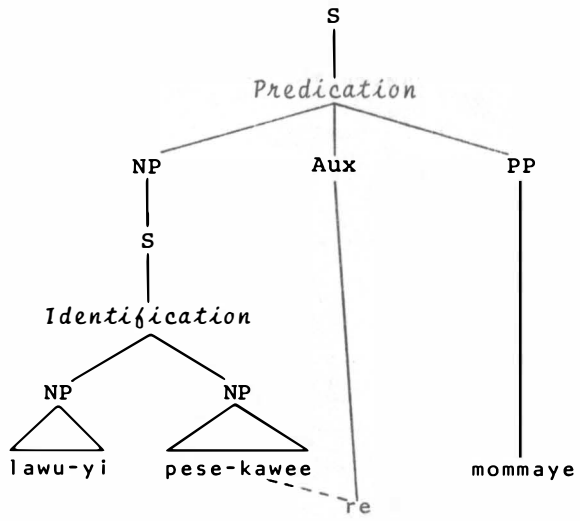
(c) Re mommaye [pese kawee lawu-yi]$_{NP}$
'Those dogs which are mine are good.'

In the above examples, lawu- is a classifier and pese is its member.

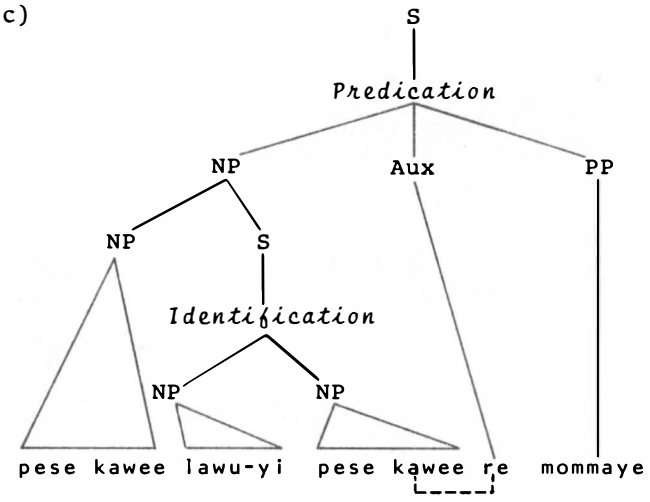
E 100 (a)



(b)



(c)



The numerative compounds and the related nouns are in the same relation as the above, thus will be handled in an analogous way.

E 101 (a) Yoor ruwė-male pese.
exist 2 Nucl
'There are two dogs.'

(b) Se-fase fase melee.
1 Nucl *stone this*
'This is a stone.'

The following examples show a co-occurrence between a possessive classifier and a numerative classifier construction within a sentence

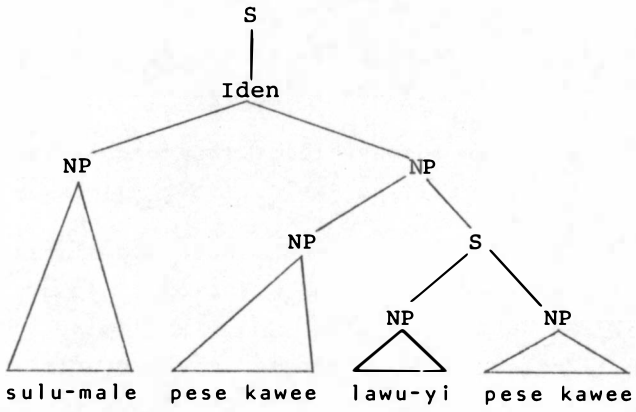
but on different levels.

E 102 (a) Sulu-male pese kawee lawu-yi.
3 Cl(animate)
'I have three dogs.' (lit. *my dogs are three*)

(b) Sulu-male lawu-yi pese kawee.
'I have three dogs.'

The deep structure (abbreviated) underlying E 102 (a) is as follows:

E 103



Classifier constructions will be discussed in greater detail after NP is further expanded into constituents.

The treatment of classifier constructions in terms of appositive nominalisation has several distinct advantages in the description of Ulithian compared to a possible alternative in which a classifier and the related NP may be generated by categorial rules in the base component. The most direct advantages seem to be the following:

(1) As Bender has indicated,[1] the relation between a classifier and the related NP is not that of head-modifier but of apposition. This has been confirmed by the native speakers' reaction. An Identification sentence is easily transformable to an appositive construction as a range of an NP without any semantic change and without any significant formal modification. Compare the two sentences in E 104.

E 104 (a) $[[\text{Lema-yi}]_{NP}\ [\text{luu lee}]_{NP}]_{S}$
'This coconut is for me to drink.'

(b) $[[\text{Lema-yi luu lee}]_{NP}$ yilaa ye mommaye$]_{S}$
fm *good*
'This coconut for me to drink is good.'

---

[1]The possibility of the treatment of possessive and numerative classifier constructions in Micronesian languages by means of appositive nominalisation was originally suggested by Dr B.W. Bender in a University of Hawaii seminar in the fall of 1968.

The two NPs in E 104 (a) show a subject-predicate relation in an Identification sentence, while the same two NPs are in appositive relation within an NP in (b).

(2) By relating an Identification sentence to the corresponding appositive noun phrase, a greater generality has been achieved in the process of nominalisation, in that the same TRs nominalising predicational sentences may now be applicable to the nominalisation of identification sentences. Thus, for example, observe the parallelism in the two noun phrases below.

E 105 (a) luu lee lema-yi (lit. *this coconut my drink*)
<== luu lee $[[\text{lema-yi}]_{NP}\ [\text{luu lee}]_{NP}]_{S}$

(b) luu lee ye mommaye (lit. *this coconut (which is) good*)
<== luu lee $[[\text{luu lee}]_{NP}\ [\text{ye}]_{Aux}\ [\text{mommaye}]_{PP}]_{S}$

(3) The proposed treatment contributes to simplicity of description. First of all, the semantic interpretation (in the sense of Katz and Fodor 1963, and Katz and Postal 1964) is simpler, since the deep structure which is relevant for semantic interpretation is one and the same for both an Identification sentence and the corresponding appositive NP. If there were two different deep structures for this, then the same semantic rules would apply repetitively with the same interpretation resulting, which is apparently uneconomical as pointed out by Lamb (1966: 47) concerning the simplicity measure in two alternative linguistic descriptions with the same "effective information". Secondly, the proposed solution will have base rules which are fundamentally simpler because there is no need to introduce a category (e.g. DET) for the purpose of describing the relation existing between the two appositive members when they are dominated by NP on the surface. Finally, feature agreement rules may be simpler too, because only one structure is required (i.e. Iden $\longrightarrow$ NP$^{\frown}$NP) to define the selectional restriction existing between a classifier and the related NP, for which in a possible alternative an additional structure (e.g. NP $\longrightarrow$ DET NP) would have to be taken into account.

In addition to the classifier construction, there are two other kinds of appositive constructions as exemplified in E 106 and E 107 respectively.

E 106 (a) Yifaa yiiy Loorob?
he
'Where is Loorob?'

(b) Medaa melee xo sa sėrė logo la-li yiiy babiyoro wee?
what fm *say* dr *in* *it* *letter*
'What did you say in that letter?'

(c) Senseye-li yiiyaa yiiy melee?
where *he* *this*
'Where is the teacher from?'

(d) Te yoor yiiy makawee wȯȯ-li Losiyop.
ng *it* *those* *on*
'There aren't such things on Losiyop.'

(e) Re buu doxo yiir senseye kalaa mė Meriken.
they
'Those teachers are from America.'

E 107 (a) Malaay peya-li melwee rii-li feefele wee yilaa ye mommaye.
that *grave-of that* *spouse-of* *girl* dm fm *good*
'That grave of that (unseen) husband of the girl is good.'

(b) Paaga-yire makawee bisi-la gė re sa mese.
all-their *those* *brother-his* *die*
'All those brothers of his died.'

(c) Re sa loxo yikawee ṁȯȯ-li yaramata.
those *first* *person*
'Those elder brothers went.'

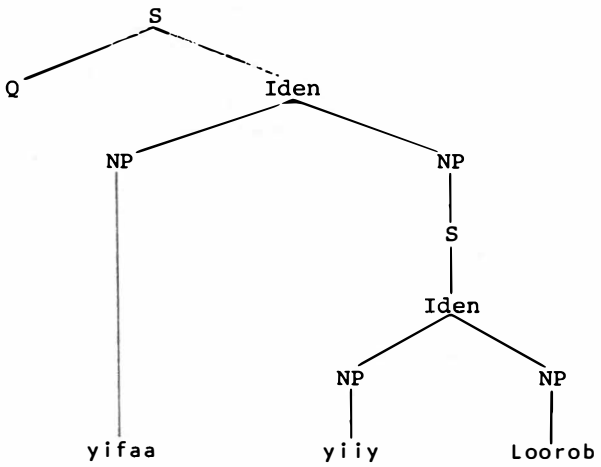
(d) Yiwee sa bii diye Beyirėx gė ye tay loxo yiwee se-male.
then *come* dr ng *that*
'Then Beyirex went west, but the other guy didn't.'

(e) Ye sa xula-ya makaa kko-yire re-Yulidiy.
know *those customs*
'He knew those customs of Ulithians.'

In E 106, the first member of each appositive construction is either yiiy or yiir both of which are 3rd per. pronouns, and the selection of one or the other is dependent upon the person, number, and the animateness feature of the following noun. Thus the first difference of E 106 from the classifier construction discussed earlier lies in the features concerned. Another difference may lie in their permutation possibilities. A classifier and the related may be freely permuted on the surface only by inserting a demonstrative enclitic or a complementiser (lȧ or we) when the classifier follows the noun. However, in E 106, placing of yiiy or yiir after the following noun phrase leads the sentence to unacceptability. In spite of these differences, it is proposed

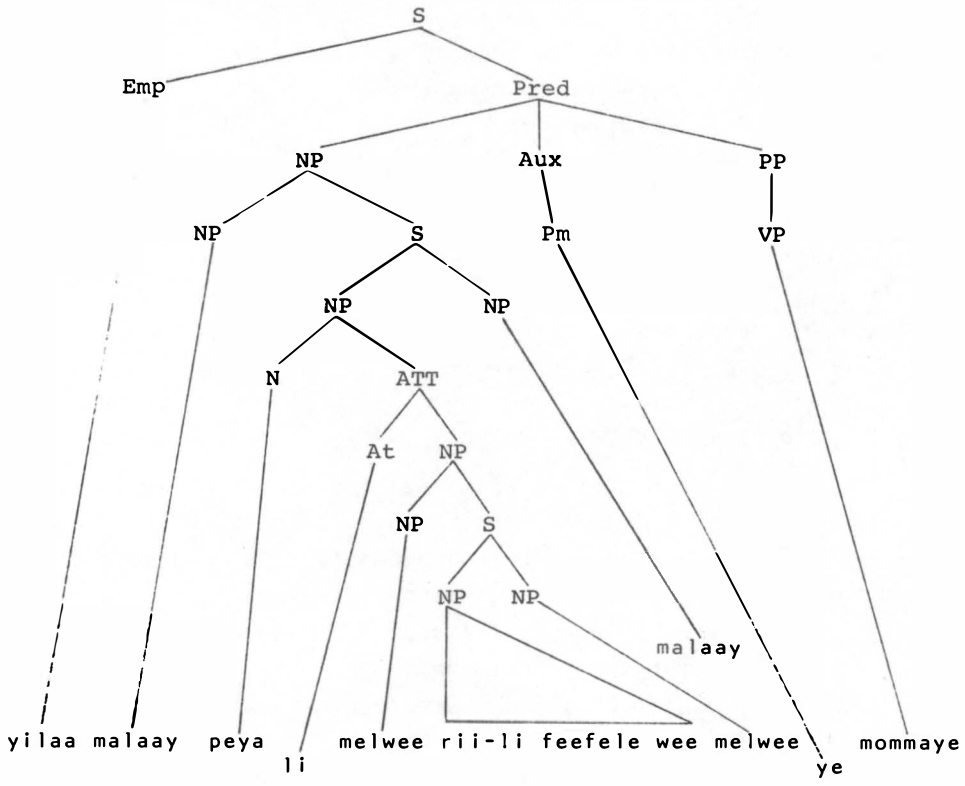
that the appositive constructions in E 106 also be derived by transformation from underlying Identification sentences (see *TR 19*). Thus, for example, E 106 (a) is interpreted as having roughly the following deep structure:

E 108



In E 107, the first members of the appositive constructions are all demonstratives (see 4.8.9.). The demonstratives in E 107 are proclitic in the sense that they obligatorily precede the nouns or noun phrases with which they enter into construction. Viewed from the surface, there is one important role that these proclitic demonstratives fill. That is, they are in principle in complementary distribution with demonstrative enlcitic of the following NP. If there is a demonstrative enclitic on a noun, no proclitic demonstrative generally appears, except for yiiy or yiir as seen in E 106. If a demonstrative enclitic is needed but there is an attributive marker (e.g. li *'of'*, yi *'my'*) following the noun, it is generally (but not always - see 4.8.5.) the case that a proclitic demonstrative is used instead of a demonstrative enclitic. As will be seen in more detail (4.8.9.), it is proposed that an appositive construction whose first member is a proclitic demonstrative be derived from a noun phrase in which an Identification sentence is embedded. Thus, for example, the deep structure underlying E 107 (a) is something like the following (with abbreviations):

E 109



The surface form will be derived by way of such processes as identical deletions, focus marker (yilaa) permutation, etc.

4.6. VERB PHRASES

4.6.1. *CONSTITUENT STRUCTURE*

BR 9 VP ⟶ { VB (NP) (COM) / NP }

BR 10 VB ⟶ Vb (NP)

BR 11 Vb ⟶ Vp (DIR) (Int)

BR 12 DIR ⟶ (Dr) (Dad)

LEXICON

cox	*'just, only'*	+Int
ṁo	*'for a while, in the first place, even, at all, indeed'*	+Int
xaamas	*'very, extremely'*	+Int, $[-[+\text{action}]_V \_\_]$
xamay	*'well'*	+Int
suxufed	*'a little'*	+Int
tėėt	*'a little'*	+Int

doxo	*'hither, to the speaker'*	+Dr
loxo	*'thither, to the hearer, away'*	+Dr
daxe	*'up, to the east, completely'*	+Dr
diye	*'down, to the west'*	+Dr
logo	*'inside, into, inland'*	+Dr
weya	*'out, outside, seaward'*	+Dr
fadale	*'around, here and there'*	+Dad
fagali	*'together'*	+Dad
fatagi	*'separately'*	+Dad
se-wo	*'together, as a unit'*	+Dad, [-__Os]

4.6.2. *DIRECT AND INDIRECT OBJECTS*

A TG tradition in dealing with the direct and indirect objects is to juxtapose two NPs in a rule with the convention that the first NP is the indirect and the second the direct object (e.g. Jacobs and Rosenbaum 1968:55). This treatment, however, seems to have a weakness in that it would bring about a difficulty associated with the non-distinct ways of interpreting the rule in which two optional NPs appear, as pointed out by Fillmore (1966:20) concerning certain treatments which allow more than one optional "preposition phrase" in the expansion of a category in English. This problem did not arise when the category Identification was expanded into two obligatory NPs, since the obligatory nature along with a convention always keeps the two NPs separate and distinct. In order to avoid the difficulty arising from optional NPs, one might introduce such relational labels as IO (indirect object) and DO (direct object) or, as Fillmore did, Dat and Erg. This treatment would have a further advantage in that it would lead to an efficient formalisation of grammatical relations. In spite of the advantage, I have not adopted the solution of relational labels, but assume that the direct and indirect object NPs belong to different hierarchical levels in the base rules at least in Ulithian. Some reasons for this assumption follow.

In the first place, IO and DO or Dat and Erg, etc., have to be expanded eventually into NPs. If the two NPs are hierarchically ordered, such labels may turn out to be redundant, since no problem will arise concerning the non-distinct ways of rule interpretation and, furthermore, the grammatical relation involved may be specified by the following conventions (cf. Chomsky 1965:68-74).

(i) Direct-Object-of: [NP, VP]

(ii) Indirect-Object-of: [NP, VB]

Secondly, a transitive verb which may not have an indirect object

agrees in person and number with the direct object and a transitive verb which may have an indirect object always agrees with the indirect object regardless of the presence or absence of the direct object as in E 110.

E 110 (a) Yi [dipali-yVre]$_{Vp}$ [yeliwici kalaa]$_{NP(DO)}$ [bo re be

want *child* *that*

fèèru-ya$_{Vp}$ melwee$_{NP(DO)}$ [bo yixili-yeyi]$_{PrepP}$]$_{COM}$

do *that* *for behalf-my*

'I want the boys to do it for me.'

(b) Yiiy melee ye sa [galle-ya]$_{Vp}$ [se-male yaramata]$_{NP(IO)}$

fm

[sulu-male paabiya]$_{NP(DO)}$

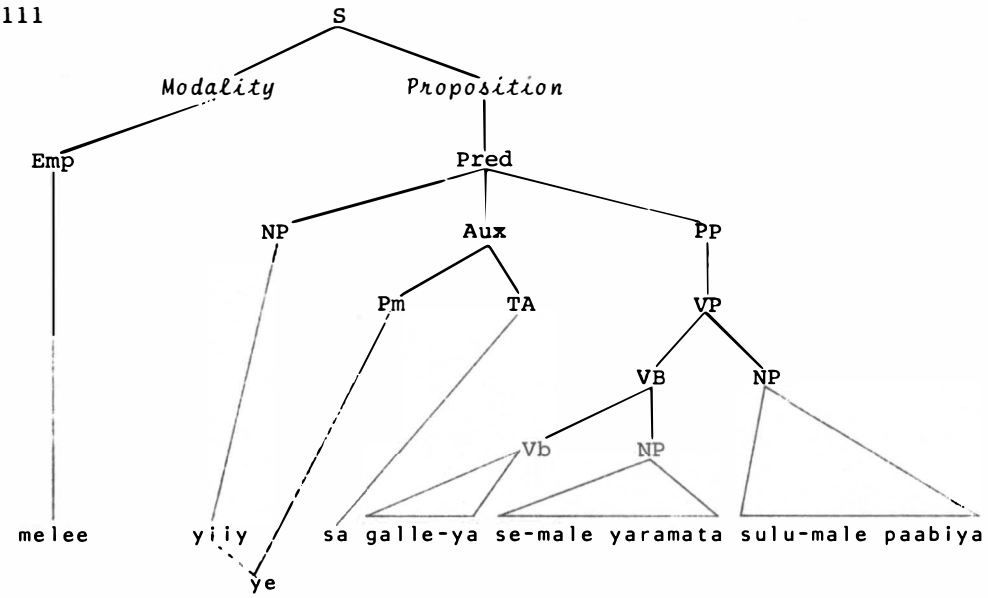
pig

'He is the one who gave the man three pigs.'

This fact indicates that a verb which may have both objects has a closer structural tie with the indirect object. In such a verb, therefore, no formal connection is observable between the verb and the direct object NP. Then it is not unreasonable to relate the indirect object NP to the verb at a lower level than the direct one. Moreover, the class of the verbs which may have an indirect object NP is a small subset of the class of transitive verbs which may have a direct object. The hierarchical treatment proposed here will give a clear indication of the set-subset relation. Thirdly, no technical problem may arise in the formulation of the agreement (feature copying) rules, since it happens that the verb always agrees with the first NP. This is so because the indirect object NP is always obligatory after a verb which may have it (see *TR 2* for agreements).

Thus, E 110 (b) is viewed as having the following deep structure P-marker (with abbreviations):

E 111



Finally, Fillmore's Erg is not particularly applicable in the case of Ulithian, because the verb changes in form as an "ergative NP" becomes the subject or object. Examine the following:

E 112 (a) Ye be suuxu-yex [xatama wee]$_{NPs}$
open door
'The door will open.'

(b) [Yaramata lee]$_{NPs}$ ye be suuxu-ya [xatama wee]$_{NPo}$
open-it
'This man will open the door.'

Since a formal difference is made between a transitive verb and the corresponding intransitive, the setting up of Erg in Fillmore's sense would seem to me to be an effort toward the syntactc formalisation of universal logical realities, which is not attempted in this study. It also seems that the case system of Ulithian is far from being of an ergative type in the sense of Hale (1968:2).

So far only three verbs have been found, which may occur with both indirect and direct NPs: galle *'to give'*, ddeye *'to deprive'*, and dogoro *'to ask, to borrow'*. Indirect NPs with galle have a "dative" meaning, while those with the other two verbs are closer to an "ablative". Observe the following examples (the forms in diagonals represent the deep structure forms which do not appear on the surface):

E 113 (a) Yi [galle-yVre]$_{Vp}$ [/yiir/]$_{NP}$ [sulu-yaye sare-li Meriken]$_{NP}$
3 Nucl *knife (long ob.)*

'I gave them three American knives.'

(b) Re ma [ddeyi-xica]$_{Vp}$ [/xiic/]$_{NP}$ [boxata-ca]$_{NP}$
hb *land-property*

gė re ma [ddeyi-xica]$_{Vp}$ [/xiic/]$_{NP}$ [waa-ca mė yiṁa-ca]$_{NP}$

'They would deprive us(incl) of our land, canoes and houses.'

(c) [Ddeyi-ya]$_{Vp}$ [yaramata laa]$_{NP}$ [magaaxu kawee]$_{NP}$
clothes dm

'Deprive the person of the clothes!'

(d) Ye la [dogoro-ya]$_{Vp}$ [yiiy tarṁale wee]$_{NP}$ [talee wee yaa-la]$_{NP}$
go *boy* *axe* dm Cl

'He went to ask the boy for his axe.' or
'He went to borrow the axe from the boy.'

(e) Yi be le [dogoro-ya]$_{Vp}$ [/yiiy/]$_{NP}$ [waa]$_{NP}$

'I will borrow a canoe from him.'

In connection with the indirect NP, a question may be raised as to whether the construction gali *'to'* + NP, which follows verbs such as faga and kaya in the following examples, is to be considered as an indirect object dominated by the same node that dominates verbs such as galle and the indirect objects that follow them:

E 114 (a) Yi [faga]$_{Vp}$ gali-yVre tėėt xoos [ruwė-wo luu]$_{NP}$
give *to some horses*

'I fed two coconuts to some horses.'

(b) Ye be le [kaya]$_{Vp}$ gali-yeyi /gaag/ [taftafa-li
teach *to me* *writing*

yida-yi /gaag/]$_{NP}$
name

'He is going to teach me how to write my name.'

Differing from English, the class of verbs which may occur with gali + NP cannot occur with the indirect NP, while that class of verbs which may occur with the indirect NP, e.g. galle, never allow gali + NP to replace the indirect NP. Besides, as noticed in the above examples, faga, kaya, etc., do not inflect in terms of object suffixes, which is not the case in the class including galle. Gali + NP may freely be placed after the object NP in the above examples, but without any formal change. Finally, gali + NP occurs with pure intransitive verbs as in:

E 115 (a) Ye sa [sėrė]$_{Vp}$ gali-ya melwee sila-la.

'He talked to his mother.'

(b) Ye [yoxo]$_{Vp}$ gali-ya /yiiy/ [melwee ye dipali-ya /yiiy/]$_{NP}$
possible *that* *want*

'What he wanted was possible to him.'

The above observation has led me to treat all the occurrences of gali + NP (and also tagi *'away from'* + NP, which has much the same morphological and syntactic characteristics) under prepositional phrases (see 4.7.5.).

4.6.3. *NOUN PHRASE AS THE MAIN VERB*

Nominal constructions frequently act as the main verb of verb phrases. An NP is replaceable for a VP as a whole, which fact has suggested NP to be dominated by VP in disjunctive relation with the sequence VB (NP) (COM) in BR 9.

E 116 (a) Ye be [[yifaa]$_{NP}$]$_{VP}$ [yado-li yaa-mu mele wȯȯ-li Yap]$_{NPs}$?
how *time* *stay on*

'How long will you stay on Yap?'

(lit. *it will be how, the time of your stay on Yap*)

(b) Yi be [[kaapine-li baarkoo laay]$_{NP}$]$_{VP}$

'I will be the captain of that ship over there.'

Occasionally, a formative dominated by DIR or Int appears in the verbalised NP (see BR 17).

E 117 (a) Ye sa [[[tatage-li kėlȯxo-li mese]$_{Nm}$ [loxo]$_{DIR}$]$_{NP}$]$_{VP}$
crying *hungry* *die*

'He was crying because of hunger.'

(b) Re sa [[[pupugu-li mese]$_{Nm}$ [diye]$_{DIR}$]$_{NP}$]$_{VP}$ [wȯȯ-li ppiya
falling *on* *and*

Falalap]$_{PrepP}$

'They fell down to death on the beach of Falalap.'

(c) Ye [[[ddare-li tattawulu]$_{Nm}$ [daxe]$_{DIR}$]$_{NP}$]$_{VP}$
run *shouting*

'He ran up shouting.'

(d) Re [[[yafa-li xamagulu]$_{Nm}$ [weya]$_{DIR}$]$_{NP}$]$_{VP}$
pm *swim* *song*

'They swam away singing.'

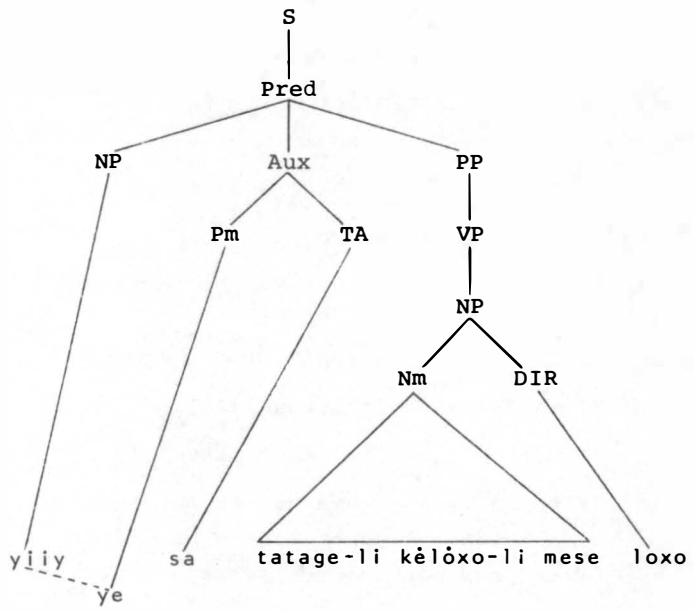
(e) Ye te [[[ttiri-li mmata]$_{Nm}$ [daxe]$_{DIR}$]$_{NP}$]$_{VP}$ [feefele wee]$_{NPs}$
quick *wake up* *woman*
'The woman is quick in getting up.'

(f) Ye sa [[tagi wee [cox]$_{Int}$]$_{NP}$]$_{VP}$
cry dm
'He just kept crying.'

(g) Xo ciil [[yeliwici [xaamas]$_{Int}$]$_{NP}$]$_{VP}$
pm *still* *child* *very*
'You are still too young.'

The deep structure of E 117 (a) may be of the following shape:

E 118



Tatage in the above diagram is the progressive form of the verb tage. All reduplicated forms of verbs may be nominalised in this way.

It seems that all subgroups of nouns or noun phrases may behave as the main verb in certain constructions. It follows that if a construction cannot be verbalised in this way, it is not an NP. Thus, particles like ciil (+Mv) *'still'*, sa (+TA), cox (+Int), doxo (+Dr), gè (+con) as well as gali *'to'* + NP (PrepP), etc., do not occur as the main verb. Therefore, they are not NPs. Examples of some subgroups of NP follow.

E 119 (1) *Interrogative-words*

(a) Ye be [feda-yaye]$_{NP}$ [piskaa là xo be cuwaye]$_{NPs}$?
how-many NuCl *spear that* *buy*

'How many spears are you going to buy?'
(lit. *it will be how many, the spears that you are going to buy*)

(b) Ye be [yiitey]$_{NP}$?
who
'Who may it be?'

(c) Ye sa [yifaa]$_{NP}$ [yela-la]$_{NPs}$
how
which
'How long was it?' (lit. *it will be which, its-length?*)

(d) Ye be [babiyoro-faa]$_{NP}$ [melee xo dipali-ya]$_{NPs}$?
book-which *that* *want*
'Which book do you want?'

(e) Ye sa [medaa]$_{NP}$ [melwee]$_{NPs}$?
what *that*
'What was that?'

(2) *Attributive construction*

(a) Xo towee [yalo-li Meriken]$_{NP}$
ng *English*
'Don't speak English!'

(b) Yi sa [senseye-li sukuun lee]$_{NP}$
'I was a teacher of this school.'

(c) Ye be te lapa mogoyo gè re ma [fedexe-li xala-yire]$_{NP}$
enough food then hb *fight* *food*
'When food was scarce, there was fighting over food.'

(d) Re sa [xaliiliya-li fedexe]$_{NP}$ [yiree-yire re-còò kawee
be-prepared *for, at* *people* dm
re tay mele]$_{PrepP}$
ng *stay*
'They were prepared to fight for the missing girls.'

(e) Xa ma [paapa-li marama]$_{NP}$
count *moon, month*
'We count moons.'

(f) Ye [faa-li se-wo]$_{NP}$ [yaa-yi tuxu-ya /yiiy/]$_{NPs}$
under-of one *hit*
'I hit him once.' (lit. *it was-under-of one, my hitting-him*)

(g) Ye be le [xala-yi]$_{NP}$ [yiiyee]$_{NPs}$
food
'This will be my food.'

(h) Ye sa [bisi-yire]$_{NP}$ [tarṁale laa]$_{NPs}$
brother *boy*
'That boy has become their brother.'

(3) *Numerative compound*

(a) Ye be [se rale]$_{NP}$ gè re be bii weya re-faliya-yi.
one day *people-island-my*
'Some day, people of this island will go out.'

(4) *Demonstrative*

(a) Ye sa [yiwee]$_{NP}$ [cox]$_{Int}$ [yaa-la ma sulbee paaga-li
that *fortune telling* *all*
rale]$_{NPs}$
'In that way, he used to have his fortune told every day.'
(lit. *it was just that, his habitual fortune telling every day*)

(5) *Noun*

(a) Ye sa [tamolo]$_{NP}$
'He became chief.'

(b) Re sa [re-yegaage]$_{NP}$ [yiree-li sukuun laay]$_{PrepP}$
worker
'They were workers at the school over there.'

4.6.4. *POSTVERBAL PARTICLES* (+Int)

Int is a lexical category involving those postverbal particles which intensify or limit the meaning of the verb with which they enter into construction. The members of Int may be lined up in sequence on the surface with free ordering. This will be handled by conjunction reduction transformation (*TR 6*) as in other similar cases including Mv. Thus E 120 (a) is viewed as derived from E 120 (b).

E 120 (a) Kamaaxo-ya { (i) cox ṁo xamay / (ii) xamay cox ṁo / (iii) ṁo cox xamay }
watch
'Look at it well just a while!'

(b) <== (i) Kamaaxo-ya cox gė kamaaxo-ya ṁo gė
kamaaxo-ya xamay

(ii) Kamaaxo-ya xamay gė kamaaxo-ya cox gė
kamaaxo-ya ṁo

(iii) Kamaaxo-ya ṁo gė kamaaxo-ya cox gė
kamaaxo-ya xamay

There are several apparent syntactic differences between Int and DIR. For example, Int never precedes any of the DIR members on the surface, while DIR may be placed before an object suffix (which is not the case with Int). Co-occurrence of DIR and Int is illustrated.

E 121 (a) Ye sa [kkili]$_{Vp}$ [loxo]$_{DIR}$ [cox]$_{Int}$
'He just dug out.'

(b) Yilaa fala-li makaa xiya-yi bo yi sa [dabe-ya]$_{Vp}$
that reason mat because

[loxo]$_{DIR}$ [ṁo]$_{Int}$ [yelusu]$_{NPo}$
ghost

'That's the reason for those mats of mine, because I followed the ghost away for a while.'

Examples of the individual items dominated by Int follow.

cox *'just'*

Cox is the most frequent in occurrence in all texts. It also appears in NP as will be seen later.

E 122 (a) Yi sa [magxuwaa]$_{Vp}$ [fadale]$_{DIR}$ [cox]$_{Int}$ [wȯȯ-li Xuwam]$_{PrepP}$
fool around on

'I just fooled around on Guam.'

(b) Yi teed [weri-ya]$_{Vp}$ [cox]$_{Int}$ [/yiiy/]$_{NP}$
ng *see*

'I just haven't seen him yet.'

(c) Ye [ṁooc] [teemi-ya]$_{Vp}$ [cox]$_{Int}$ [talee wee yaa-la]$_{NP}$
Mv *sharpen axe*

'He just sharpened his axe.'

ṁo

Mo has two different sets of meanings conditioned by syntactic environments, one set appearing in the imperative and the other elsewhere.

(1) *'for a while, in the first place'* in the imperative

E 123 (a) Xo be [falaxa-ya]$_{Vp}$ [ṁo]$_{Int}$ [coo lee]$_{NP}$
throw *copra*
'In the first place throw this copra down!'

(b) Xa le [fifiyogo]$_{Vp}$ [ṁo]$_{Int}$
telling-stories
'Continue your(pl) story for a while!'

(c) [Wedi-yeyi]$_{Vp}$ [ṁo]$_{Int}$
wait
'Wait for me just a while!'

(2) *'at all, even, indeed'* elsewhere

E 124 (a) Ye mele se-yaye pabo-li talee kawee yaa-yire re-musuwee
stay one *piece* *axe* dm *their* *men-of-old-days*
we ye tay [lamafii]$_{Vp}$ [ṁo]$_{Int}$
which ng *good*
'There was a part of the knives belonging to the people of old days, which was not good at all.'

(b) Ye tay [malawa]$_{Vp}$ [ṁo]$_{Int}$ [se-male]$_{NPs}$
alive
'No one even survived.'

(c) Tay [yoor]$_{Vp}$ [ṁo]$_{Int}$ [faa-li se-wo]$_{PrepP}$ [lȧ ye be ciil
ng *exist* *under* *one* *still*
mele wȯȯ-li Meriken]$_{NP}$
'He doesn't live in the U.S. any longer.'

xaamas *'very, extremely'*

Xaamas seems to have originated from the causative prefix xa- and the verb mese *'die'*. This particle does not occur with a verb having <+action>. It seems that it can occur with any <+state> verb which may be able to undergo an adjectivisation transformation (*TR 38*), in which the verb is placed immediately after the head noun and before the demonstrative enclitic if there is one (e.g. pallege *'big'* in ṁale pallege wee *'the big man'*). Such a subclass of verbs corresponds roughly to adjectives in English. As noticed in (c) below, xaamas may appear with an NP acting as the main verb if only no semantic inconsistency arises.

E 125 (a) Ye te la [becikkara]$_{Vp}$ [xaamas]$_{Int}$
become hot
'It doesn't become very hot.'

(b) Lulapa wee ye sa [lawulu-ya]$_{Vp}$ [[se-male tarṁale]$_{NP}$ [lả
king *have-as child* *boy* *who*

ye xarėta-li pallege gė ye [musososowa]$_{Vp}$ [xaamas]$_{Int}$ [mė
end-of *big* *strong*

yiṁòò-li yikalaa tėėt yaramata wòò-li fuluya kaa]$_{PrepP}$]$_{S}$]$_{NP}$
more-than *those* *some people* *on* *island* dm

'The king had a son who was far bigger and stronger than any other man on the island.'

xamay *'well'*

Xamay is apparently related to xammayu *'to love'* both in form and meaning, but it is dealt with as a particle on account of its syntactic role.

E 126 (a) [Kamaaxo-ya]$_{Vp}$ [/yiiy/]$_{NP}$ [xamay]$_{Int}$

'Watch it carefully!'

(b) Re be te [xafele-ya]$_{Vp}$ [xamay]$_{Int}$ [/yiiy/ lả ye be tamolo]$_{NP}$
select *he who* *chief*

[gė]$_{con}$ [te yoor lả ye be lilli wolo]$_{S}$
ng *exist* *killing turtle*

'If they do not select well the one who will be the chief, no one will be able to kill turtles.'

suxufed *'a little'* and tėėt *'a little'*

Suxufed and tėėt are also dealt with under numerative compounds, since they are replaceable for the sequence numerative base + NuCl. In terms of quantity, suxufed is less than tėėt.

E 127 (a) Ye sa [fee]$_{Vp}$ [suxufed]$_{Int}$

'He was perplexed a bit.'

(b) Re [katabo]$_{Vp}$ [logo]$_{DIR}$ [tėėt]$_{Int}$

'They approached in a little.'

(c) Yiwee ge ye [xaraxa]$_{Vp}$ [diye]$_{DIR}$ [tėėt]$_{Int}$

'Then he climbed down a little.'

4.6.5. *DIRECTIONALS* (DIR)

4.6.5.1. Directional particles (+Dr) and directional adverbials (+Dad) are grouped under DIR for the reasons that (1) they are close neighbours

on the surface; (2) they function alike in relation to the verb, i.e. the object suffix of a verb may be attached either to Dr or to Dad (except for se-wo which is lexically a numerative); (3) they are permutable in the surface order (*TR* 35) as in E 128; and (4) all members of both categories share the meaning *'direction'* in some way or other.

E 128 (a) cuyu [doxo]$_{Dr}$ [fagali]$_{Dad}$
cuyu [fagali]$_{Dad}$ [doxo]$_{Dr}$
'to come together'

(b) cuyu [doxo]$_{Dr}$ [fatagi]$_{Dad}$
cuyu [fatagi]$_{Dad}$ [doxo]$_{Dr}$
'to come separately'

The main reason for the dichotomy of all these directional elements into the two categories is that the members of Dr and those of Dad may freely co-occur but any two or more members of either category may not, as observed in E 129.

E 129 Re ṁeṁee [weya]$_{Dr}$ [fagali]$_{Dad}$
'They search farther out together.'

but *Re ṁeṁee [fagali]$_{Dad}$ [fadale]$_{Dad}$
*Re ṁeṁee [weya]$_{Dr}$ [loxo]$_{Dr}$

Besides, some structural differences between Dr and Dad are also noted. First of all, when an object suffix follows a Dr particle, the verb does not have the object suffix. In case of Dad, either or both the verb and Dad may have the object suffix.

E 130 (a) Re sa lli-yVre loxo xatuu kawee.
kill *cat*
'They killed the cats completely.'
Re sa ṁeri daxe-yeyi.
search
'They searched for me upward.'

(b) Xacuya-yVre fagali-yVre recȯȯ kalaa gė xo sa
let leave *people*
xabii daxe-yVre wȯȯ-li Fayls.
let go *them on,to*
'Send those people together to Fais.'

Secondly, the anaphoric doubling of Dr (see E 131) is not parallelled in Dad. Finally, a Dr particle and the preceding verb can be the head of an attributive construction involving -li as in ddare doxo -li se-male xece *'a rat's running hither'*. This, however, never occurs with Dad.

4.6.5.2. Directional Particles (+Dr)

(1) The position of Dr is immediately after Vp. If Vp involves an object suffix, Dr occasionally (in some verbs obligatorily) precedes the object suffix. It is not uncommon to have an anaphoric Dr after an object suffix if one precedes it.

E 131 (a) Ye sa xadare-loxo-yeyi loxo
make- walk Dr Os Dr
'He made me walk away.'

(b) Yi be xapugu-diye-yVre diye
make- fall Dr Os Dr
'I will have them fall down.'

It will be considered that the first Dr is the one generated by base rules and the second by transformation (see *TRs 31* and *32* for this assumption).

Examples of Dr alternation between post-Os and pre-Os follow.

E 132 (a) faga-yeyi daxe : faga-daxe-yeyi
'to give up to me'

(b) ṁeri-yeyi daxe : ṁeri-daxe-yeyi
'to look up for me'

(c) xamobu-xo diye : xamobu-diye-xo
'to duck you down'

(d) xaṁucu-yVre logo : xaṁucu-logo-yVre
'to grab them down'

(e) xayegaagali-ya loxo : xayegaaga-loxo-ya
'to let him work'

Examples of the obligatory pre-Os follow.

(f) *yaga-yeyi daxe : yaga-daxe-yeyi
'to reach up to me'

(g) *kalla-xo diye : kalla-diye-xo
'to look down at you'

(h) *xabuu-xomami doxo : xabuu-doxo-xomami
'to let us(excl) come'

(2) A verb and the following Dr may constitute a unit to which an attributive (-li) or possessive (-yi, -mu, etc.) suffix may be attached.

E 133 (a) maroo diye *'sit down'* : maroo diye -li
'sitting down of'

(b) kalla daxe *'look up'* : kalla daxe -li
'looking up of'

(c) buu logo *'come in'* : buu logo -yi
'my coming in'

(d) yolo diye *'lie down'* : yolo diye -mu
'your lying down'

(e) xabuu doxo -ya : xabuu doxo -ya -yi
'let him come' *'my letting him come'*

Now the problem is how the combination *verb* + Dr in E 133 is to be interpreted, i.e. whether it is simply an NP or a form derived from some underlying S. I would prefer the latter interpretation, and the details of rule formulation will be taken up under nominalization *TR*s (*TR*s *12* and *36*). For details of the associated discussion, see 4.8.6.3. Observe the following examples, with transitive verbs.

E 134 (a) [Xabuu doxo -ya -yi yeliwici]$_{NP}$ [melee]$_{NP}$
this
'This is the child whom I let come.'

(a^1) [Xabuu doxo -ya -yi]$_{NP}$ [yeliwici lee]$_{NP}$
'This child is (the one) whom I let come.'

(b) [Xasi -ya -yi doxo cale]$_{NP}$ [melee]$_{NP}$
water
'This is the water that I brought.'

(b^1) [Xasi -ya -yi doxo]$_{NP}$ [cale lee]$_{NP}$
'This water is what I brought.'

(c) [Pediya-li diye yaramata wee luu]$_{NP}$ [melee]$_{NP}$
throw
'This is the coconut that the man has thrown down.'

(c^1) [Pediya-li diye yaramata wee]$_{NP}$ [luu lee]$_{NP}$
'This coconut is what the man has thrown down.'

(3) On the surface, all transitive verbs ending in a vowel other than a may have the final vowel a in free variation with their inherent vowel before a Dr, if and only if the 3rd per. sg. object suffix intervenes between the verb and the Dr. The rule involved is given in 3.6.3. (*PR 20*). Examples follow.

E 135 (a) fidi + -ya + loxo ==> { fidii lox0 / fidaa lox0 }
go with 3rd sg.
'to go away with him'

(b) suuxu + -ya + loxo ==> { suuxuu lox0 / suuxaa lox0 }
open
'to open it up'

(c) lixidi + -ya + diye ==> { lixdii di(y) / lixdaa di(y) }
leave
'to leave him behind'

(d) xamolo + -ya + daxe ==> { xaṁoloo dax / xaṁolaa dax }
finish
'to finish it up'

(e) ruxu + -ya + doxo ==> { ruxuu dox0 / ruxaa dox0 }
pick and bring
'to pick it up and bring it hither'

Cf. fidi-yeyi loxo ==> { fidiyey lox0 / *fidayey lox0 }
go away with me

lixidi-xo diye ==> { lixdixo ==> lixduxU / *lixdax0 }
leave you behind

All intermediate phonological processes are omitted in the above examples.

(4) Geographical directions are indicated by using a verb followed by a Dr particle. An example in which verb bii *'to come, to go'* is employed follows.

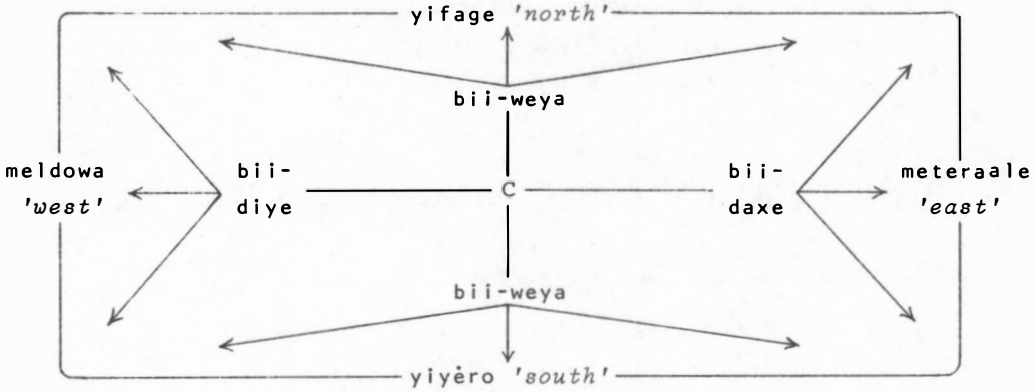


FIGURE 6

GEOGRAPHICAL DIRECTION

(5) The same form as Dr loxo is used as the verb meaning *'to go'*.

E 136 Xo be loxo yiiyaa?
'Where are you going?'

Its allomorph, la (as the verb), occurs only when another verb directly follows as a result of conjunction reduction T (see *TR 30*).

E 137 Ye sa la dodowa yiluxu.
spear-fishing back-side
'He went spear-fishing on the ocean side.'

(6) Examples where individual Dr members appear follow.

doxo

E 138 (a) Ye be [dabe-xomami]$_{Vp}$ [doxo]$_{Dr}$ [/xaamami/]$_{NP}$ [mè yiree-li
fòllow-us
yìma-mami]$_{PrepP}$
house-our
'He is going to come with us(excl) from our(excl) house.'

(b) Re [xafaga-yVre]$_{Vp}$ [doxo]$_{Dr}$ [/yiir/]$_{NP}$
'They sent them hither.'

(c) Yale doxo *'fly hither'*
kullu doxo *'come in (of tide)'*
ruxu-ya doxo *'pick it and bring it hither'*

xamucu doxo *'hold hither'*
xamolo-ya doxo *'prepare it here'*
xatape-ya doxo *'let his face turn hither'*

loxo

E 139 (a) Yi [xasi-ya]$_{Vp}$ [loxo]$_{Dr}$ [se-male pese]$_{NP}$ [ddawe]$_{Vp}$ [loxo]$_{Dr}$
carry *far*
'I took a dog away.'

(b) Ye sa [mese]$_{Vp}$ [loxo]$_{Dr}$
'He died.'

(c) Re [faga]$_{Vp}$ [loxo]$_{Dr}$ [gaag]$_{NP}$ [wòò-li mmade]$_{PrepP}$
send *shallow*
'They sent me to the reef.'

(d) buru loxo *'become high tide'*
ccaa loxo *'bloody'*
cappi loxo *'lie flat'*
duxumi-ya loxo *'wrap it up'*
fele loxo *'improve'*
fadèlè loxo *'paddle away'*
lokaa loxo *'lock up'*
lli-ya loxo *'kill him'*
masèrè loxo *'fall off to sleep'*
mucu loxo *'completely finished'*
mesère-ya loxo *'tear it up'*
mabo loxo *'drowned'*
ppaca loxo *'stick firmly'*
taxulu loxo *'turn away'*
tara loxo *'completely over (as rain)'*
wele loxo *'become different'*
wuwu loxo *'completely full'*
xutèfi-ya loxo *'spit it away'*
xassèxu-ya loxo *'fill it completely'*
tala-ya loxo *'wash it completely'*

diye

E 140 (a) Mariyaa ye [weri]$_{Vp}$ [tarṁale wee [ye[dare]$_{Vp}$ [diye]$_{Dr}$
boy *walk*

[wòò-li ppiya]$_{PrepP}$]$_{S}$]$_{NP}$
on *sand*

'Mary saw the boy walk toward the beach.'

(b) Yitoli [diye]$_{Dr}$ -yeyi [diye]$_{Dr}$
put
'Put me down.'

(c) Yi be le [falfala]$_{Vp}$ [diye]$_{Dr}$ [lema-ca]$_{NP}$
throw Cl*(drink)*
'I will throw down some coconuts for us (in) to drink.'

(d) ciṁa doye *'turn face down'*
garcappa diye *'lie flat'*
ṁeri-ya diye *'look for him westward'*
peda-ya diye *'throw it down'*
wėlwėle diye *'straightened down'*
taxace-ya diye *'let him free'*
xawėle-ya diye *'straighten it down'*

daxe

E 141 (a) Ye sa [papallege]$_{Vp}$ [daxe]$_{Dr}$ [tarṁale wee]$_{NPs}$
getting-big *boy*
'The boy was getting bigger.'

(b) Lemaraxoy ye sa [wwele]$_{Vp}$ [daxe]$_{Dr}$ [yaa-la bii daxe]$_{NPs}$
(focussed) *straightened up* *eastward*
[Lamdaxe wee boxata-la]$_{PrepP}$
home
'Lemaraxoy went straightway up to Lamdax, her home village.'
(lit. *as-for-Lemaraxoy her coming up was straightened up to-Lamdax which was-her-home*)

(c) Re sa [xafoxola-yeyi]$_{Vp}$ [daxe]$_{Dr}$ [mė wȯȯ-li Yulidiy]$_{PrepP}$
grow
'They have fostered me on Ulithi.'

(d) bulu daxe *'start'*
ciṁa daxe *'get up'*
ddewėlė daxe *'choose'*
ffėsė daxe *'call upward'*
xasere-ya daxe *'fill it up with liquid'*

weya

E 142 (a) Re [xafaga-xo]$_{Vp}$ [weya]$_{Dr}$ [/xeel/]$_{NP}$
send
'They sent you away.'

(b) Ye sa [xaraxa]$_{Vp}$ [weya]$_{Dr}$ [wolo wee]$_{NPs}$
crawl *turtle*
'The turtle crawled seaward.'

(c) lutu weya *'jump away'*
ddare weya *'run away'*
xiba weya *'step out'*
suuxu-ya weya *'open it out'*
maroroo weya *'sitting out'*
sėrė weya *'confess'*

logo

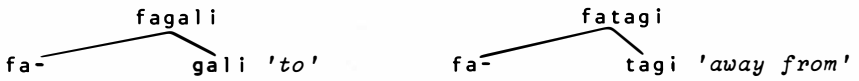
E 143 (a) Medaa melee xo sa [sėrė]$_{Vp}$ [logo]$_{Dr}$ [yiiyage]$_{PrepP}$?
say *there*
'What did you say in it?'

(b) Ye [buu]$_{Vp}$ [logo]$_{Dr}$ [yila-li yiṁa]$_{PrepP}$
in *house*
'He entered the house.'

(c) xasi-ya logo *'bring it in'*
yale logo *'fly in'*
yaga logo *'reach in'*
liweli-ya logo *'take the place'*

4.6.5.3. Directional Adverbials (+Dad)

(1) Four Dad members are listed in the Lexicon, of which se-wo is morphologically deviant by virtue of its being a numerative compound. Fadale, fagali, and fatagi have a common characteristic in that they may be followed by an object suffix. Fadale may not be divided into two morphemes, since both (fa- and -dale) would be bound without clearly isolated meanings. On the other hand, fagali and fatagi can each be analysed into the constituent morphemes, in which fa- (bound) may be assigned the meaning *'each other'*.



In spite of the relatedness between the pair fagali and fatagi and the pair gali and tagi, in particular their shared verbal inflection, the two pairs are handled differently for syntactic reasons, i.e. the former under Verb Phrases and the latter under Preposition Phrases. In the first place, fagali and fatagi may occur without an NP following,

which is not the case with gali and tagi.

E 144 (a) Re [yaga]$_{Vp}$ [fagali]$_{Dad}$
reach
'They shook hands with each other.'

(a^1) Re [yaga]$_{Vp}$ [gali-ya /yiiy/]$_{PrepP}$
'They reached it.'

(b) Re [yaga]$_{Vp}$ [fatagi]$_{Dad}$
'They reached away from each other.'

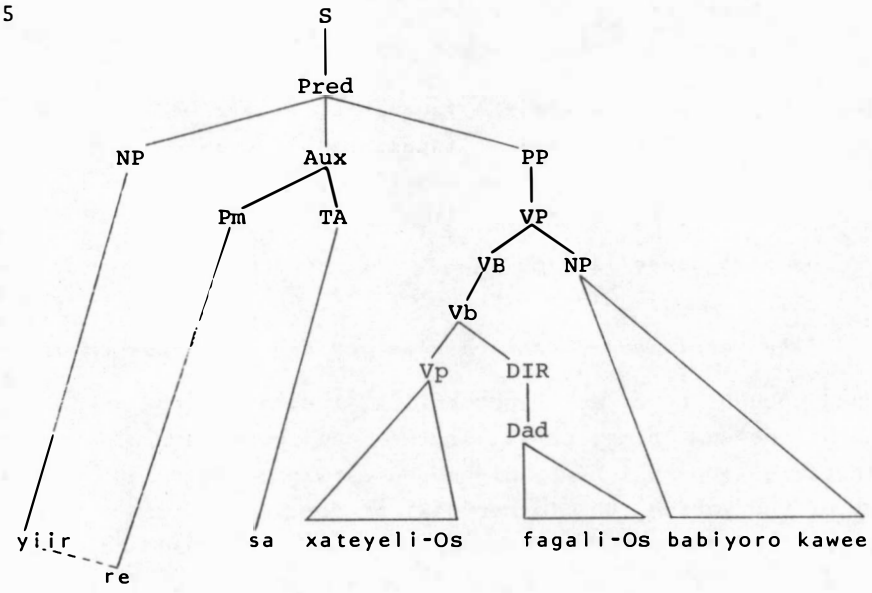
(b^1) Re [yaga]$_{Vp}$ [tagi-ya yaramata wee]$_{PrepP}$
'They kept off the person.'

(c) Re sa [xateyeli-ya]$_{Vp}$ [fagali-ya]$_{Dad}$ [babiyoro kawee]$_{NP}$
gather
'They gathered those books together.'

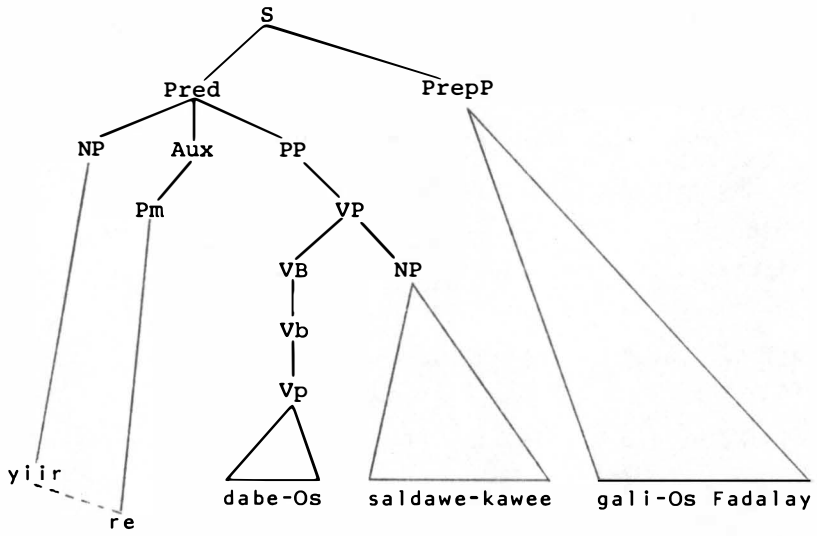
(c^1) Re [dabe-yVre]$_{Vp}$ [saldawe kawee]$_{NP}$ [gali-ya Fadalay]$_{PrepP}$
follow
'They followed the soldiers to Fadalay.'

Secondly, as noticed in E 144 (c and c^1), fagali and fatagi never follow the object of the verb but the object follows them, i.e. their object and that of the verb are one and the same; gali and tagi have their own object which has nothing whatsoever to do with that of the verb. Thus, for example, E 144 (c) and E 144 (c^1) have the following deep structure differences (E 145 and E 146 respectively).

E 145



E 146



(2) On the surface, a Dad member is obligatorily followed by an object suffix if the co-occurring verb is a transitive base followed optionally by the object suffix and the object NP has <+def> (see *RR 4* in 4.14.).

Observe the following co-occurrence restrictions.

E 147 (a) Re { ṁoṁṁeeri-ya fadale-ya / ṁoṁṁeeri fadale-ya / *ṁoṁṁeeri-ya fadale / *ṁoṁṁeeri fadale } se yalapa.
road

'They were searching around for a way.'

(b) Recȯȯ kalaa re { xasi-xo fagali-xo / xasi fagali-xo / *xasi-xo fagali / *xasi fagali } /xeel/ mė
people dm

paabiya kawee lawu-mu.
pig Cl-*your*

'The people over there carried you and your pigs together.'

The dual occurrence of an object suffix, i.e. after the verb and after Dad at the same time, parallels the dual appearance of a directional particle (+Dr) which was discussed earlier. In relation to the treatment of the latter, the former will be derived in such a way that an object suffix of a verb is optionally copied after Dad and then the original suffix of a verb is optionally be erased (see *TR 31*).

(3) Semantically a Dad together with the co-occurring verb refers to the action or state of the subject NP if the verb does have an object NP, and to that of the object if the verb is followed by its object.

E 148 (a) Re [mele]$_{Vp}$ [fatagi]$_{Dad}$

'They live separately.'

(b) Re sa [teye]$_{Vp}$ [fagali]$_{Dad}$ re sa [xateyeli-ya]$_{Vp}$
gather *collect*

[fagali-ya]$_{Dad}$ [babiyoro kawee]$_{NP}$

'Together they collected the books together.'

If the subject and the object are of identical reference, verb + Dad yields *reflexive* meaning, since it refers back to the subject. In this case, deletion of the object NP is effected by *TRs 13* and *21*.

E 149 Yeliwici kalaay re [tutuxu-yVre]$_{Vp}$ [fagali-yVre]$_{Dad}$

<== yeliwici kalaay Pm tutuxu-Os fagali yeliwici kalaay

'Those children are hitting one another.'

(4) More examples on individual Dad members follow.

fagali

E 150 (a) Si be [xafiiya-ya]$_{VP}$ [fagali-ya]$_{Dad}$ [yaa-ca loxo]$_{NP}$
straighten *our going*

'Let's go side by side.'

(b) Xa be [xoyo]$_{Vp}$ [fagali]$_{Dad}$
increase number

'You(pl)! Get together!'

(c) Re [xasi-yVre]$_{Vp}$ [fagali-yVre]$_{Dad}$ [/yiir/ mė babiyoro kawee]$_{NP}$
carry

'They carried them together with those books.'

fatagi

E 151 (a) Re sa [loxo]$_{Vp}$ [fatagi]$_{Dad}$

'They went separately.'

(b) [[Xayaxi(-yVre)]]$_{Vp}$ [fatagi-yVre]$_{Dad}$ [se-male mė
distribute *1* Nucl

se-male wolo kaa]$_{NP}$]$_{S}$ [gė]$_{con}$ [xo sa [faga]$_{Vp}$
turtle *send*

[loxo]$_{Dr}$ [wòò-li Moxmox]$_{PrepP}$]$_{S}$

'Send all those turtles separately to Mogmog!'

fadale

E 152 (a) Re [ṁeṁee]$_{Vp}$ [weya]$_{Dr}$ [fadale]$_{Dad}$ [tagi-ya /yiiy/]$_{PrepP}$
search

'They looked around for it away from it.'

(b) [Xasi-ya]$_{Vp}$ [fadale-ya]$_{Dad}$ [weya]$_{Dr}$ [/yiiy/]$_{NP}$
carry

'Carry it away!'

(c) Ye sa [fidi-ya]$_{Vp}$ [fadale-ya]$_{Dad}$ [weya]$_{Dr}$ [/yiiy/]$_{NP}$
follow

'He followed her around.'

se-wo

E 153 (a) Re [cuya]$_{Vp}$ [se-wo]$_{Dad}$ [mè yiree-li sukuun]$_{PrepP}$
leave *from*

[sa [buu]$_{Vp}$ [doxo]$_{Dr}$]$_{S}$

'They returned from school together.'

(b) Re ma [mele]$_{Vp}$ [se-wo]$_{Dad}$
live

'They always live together.'

(c) [[Te fedexe]$_{NP}$ [malaa]$_{NP}$]$_{S}$ [bo]$_{con}$ [[fedexe-li tarṁale]$_{NP}$
fight *that* *boy*

[lå xaamiyi xa sa [xaccaxasi-ya]$_{Vp}$ [se-wo]$_{Dad}$
that you(pl) *boast*

[yalo-li ṁale]$_{NP}$]$_{COM}$]$_{NP}$
voice *man*

'That was not a fight but a boys' quarrel in that you(pl) boasted of your manly spirit to each other.'

4.7. PREPOSITIONAL PHRASES

4.7.1. *CONSTITUENT STRUCTURE*

BR 13 PrepP ⟶ (Prp) $\begin{Bmatrix} NP \\ PrV \end{Bmatrix}$

BR 14 PrV ⟶ Vpr^NP

LEXICON

mė	*'from, at, to'*	+Prp, [-__PrV], [+__[+N, +locational]]
bo	*'as, for'*	+Prp, [+__PrV]
gali	*'to, with, for'*	+Vprs, [-Prp__], [+__Os]
tagi	*'away from'*	+Vprs, [-Prp__], [+__Os]
yixili	*'for, with'*	+Vprs, [+Prp__], [±__Os]

4.7.2. *"HYPERCLASS" TREATMENT OF* PrepPs

Several decisions have been made in treating the prepositional phrases in Ulithian. In the first place, prepositions are represented as constituents in this study, i.e. not as features of nouns. This measure is taken because of the complexity of rules that would result if a prepositional segment was created in terms of noun features, to say nothing of some other difficulties as pointed out by Jacobs and Rosenbaum (1968:138-148) in the course of their dealing with prepositions as features in deep structures. Moreover, there appears to be no strong reason, in terms of generality or simplicity, for introducing independent lexical items from features of nouns. In the second place, a PrepP and an NP are separated in deep structures in this study, i.e. the former dominates the latter but not vice versa. This treatment differs from Fillmore 1966 in which no distinction is made between the two, but is rather close to Chomsky 1965 in that his "Prep-Phrase" is dominated by "VP". Finally, all types of PrepPs are grouped together as a kind of "hyperclass" (Elson and Pickett 1965: 106,142) in the base component, i.e. not as a sequence of PrepPs. In other words, prepositional phrases such as "locative", "temporal", "instrumental", etc. are considered not as a syntagmatic sequence but rather as a paradigmatic set in underlying structures, and their appearance on the surface in a sequence is viewed as a result of conjunction reduction transformations (*TR 6*). Again, this treatment differes slightly from Chomsky 1965 and considerably from Fillmore 1966. In an illustrative discussion of the base component in English, Chomsky (1965:107) lines up two optional Prep-Phrases as constituents of VP, and then expands Prep-Phrases into "Direction, Duration, Place, Frequency, etc.". Chomsky's formulation is apparently clumsy in that the same two optional categories cause the problem of non-distinct interpretation of the rule as discussed elsewhere. Moreover, the disjunctive expansion of Prep-Phrase including "etc." is unsatisfactory in that the rule seems to be an exception to the general practice in the categorical component that a category is expanded into at least two conjunctive subcategories, and in that insertion

of "etc." may weaken the TG effort toward explicit formalisation of rules.

In order to remedy the difficulty associated with Chomsky's sequence of optional Prep-Phrases, in addition to other motivations, Fillmore expands his "Proposition" into the verb and several nominal elements (with case deonominations such as Erg, Dat, Loc, Inst, Ag) which are all noun phrases. He further assumes that every noun phrase begins with a preposition and the non-appearance of a preposition before a noun in certain environments on the surface is accounted for by means of some general deletion rules. In spite of the advantage of Fillmore's model including the clearcut distinction between category and relations, his procedures are not followed in this study mainly because of the difference in the prepositional systems between English and Ulithian, and partly because of the complexity involved in rule formulations, e.g. his three-way introduction of prepositions. Furthermore, there are some other motivations in favour of the "hyperclass" treatment proposed here.

(1) The inconsistency between the traditional case distinction and the corresponding formal difference is too great to connect the cases and the different types of PrepPs in any simple way. For example, "locative" may be expressed with preposition proper (Prp) mė *'to, from, at'*, verbal preposition (Vpr) gali *'to'*, nominals wȯȯ- *'to, on'* and yiree- *'to, at'* or many other simple nouns such as place or building names. Then it is not unreasonable to give up the attempt to relate cases and the corresponding forms, which would bring about a complicated system of rules with not much significant generalisation. A better way seems to be to stick to the formal differences alone. Then the notional (semantic) differences of PrepPs are recognised by the association of the lexical items involved, i.e. the verb, preposition, and noun, etc. Once case distinctions are excluded from the base rules, the disadvantage of linking up optional PrepPs in the expansion of a single category is avoided.

(2) As will be discussed in the following subsection, the system of Ulithian PrepP is relatively simple. There are only two prepositions proper and three verb-like prepositions and all the rest are simply NPs. Therefore, notionally different prepositional phrases have similar formal constructions and there is some overlap of constituency, which fact furnishes another justification for the "hyperclass" treatment.

(3) If different prepositional phrases were to be arranged in sequence in a base rule, it would not be easy to decide the base order among them, since they are in essentially free order on the surface.

Thus there would be no need to assign them an *ad hoc* order in the base and then permute tham to free order by transformation. A better way seems to be to assume that ordering is relevant only on the surface and that all the different prepositional phrases constitute the disjunctive members of one and the same category, PrepP. Observe the following examples for free ordering.

E 154 (a) Te yoor se-male là ye xaṁòò
ng *exist* *who* *go-ahead*

{[mè yiṁòò-yi /gaag/]$_{PrepP}$
[yiree-li ddare wee]$_{PrepP}$
at *run* dm}

{[yiree-li ddare wee]$_{PrepP}$
[mè yiṁòò-yi /gaag/]$_{PrepP}$}
from before

'Nobody preceded me in the race.'

(b) Xa lixidi-ya bo ye be yalapa daxe
Pm *let-him-so-that* *way, walk* dr

{[la-li xowuu
in, on lavalava
[gali Lamdaxe]$_{PrepP}$
to}

{kalaa]$_{PrepP}$ [gali Lamdaxe]$_{PrepP}$
[la-li xowuu kalaa]$_{PrepP}$}

'You(pl), let him walk up on the lavalava (path) to Lamdax.'

(c) Xa sa lli-ya xalufu wee
kill *lizard*

{[yire-li sukuun wee]$_{PrepP}$
at
[wòò-li Falalap]$_{PrepP}$
on
[faay-wo kulok]$_{PrepP}$
four
[la palaliyolo-li lalow]$_{PrepP}$
evening *yesterday*}

{[wòò-li Falalap] [faay-wo kulok] [la palaliyolo-li lalow]
[faay-wo kulok] [la palaliyolo-li lalow] [yiree-li sukuun wee]
[la palaliyolo-li lalow] [yiree-li sukuun wee] [wòò-li Falalap]
[yiree-li sukuun wee] [wòò-li Falalap] [faay-wo kulok]}

[gaag mè melwee bisi-yi /gaag/]$_{NP}$

'I killed the lizard with my brother at school on Falalap at two o'clock in the afternoon yesterday.'

(4) No inherent grammatical relation is noted among prepositional phrases, but every PrepP is necessarily related to the main verb, which

fact gives a partial support to the assumption concerning the proposed treatment. Subcategorisation of verbs in terms of prepositional phrases may simply be made by the specification of relevant selectional restrictions in the Lexicon.

(5) Most of all, the proposed treatment contributes to the simplicity of the base rules. Besides, the existence of *BR 1* which generates any number of coordinate clauses opens the way to the treatment of a sequence of PrepPs by conjunction reduction transformation in a way parallel to other categories such as Mvs, NPs, PPs, and Ints. Thus, for example, E 154 (a) may be viewed as the derivation of the underlying sentences in E 155.

E 155 (i) Te yoor se-male lȧ ye xaṁòò mė yiṁòò-yi /gaag/
gė ye xaṁòò yiree-li ddare wee.

(ii) Te yoor se-male lȧ ye xaṁòò yiree-li ddare wee
gė ye xaṁòò mė yiṁòò-yi /gaag/.

Any arrangement of ordering in a more favoured way among PrepPs themselves or PrepPs and other elements on the surface may be specified also in *TR*s. For example, gali + pronoun is placed more favourably before an object NP consisting of a noun or noun phrase, as in E 156.

E 156 Yi sa $[\text{kaya}]_{Vp}$ $[\text{gali-ya /yiiy/}]_{PrepP}$ $[\text{dėdėė-li luu}]_{NP}$
tell *climb*
'I told him how to climb coconut trees.'

4.7.3. *INTERNAL STRUCTURE OF* PrepP

The set of prepositions proper (mė and bo) does not inflect and does not occur without a following NP or PrV. NP may stand alone dominated by the node PrepP. As will be observed in detail shortly, there are several distinct subclasses of NP which may appear as prepositional phrases, i.e. pseudo-prepositionals, time adverbials, place adverbials, etc. PrV (verbal prepositional construction) is expanded into Vpr (verbal prepositions) and its object NP. Verbal preposition stems (Vprs) (gali, tagi, and yixili) do not occur with mė (+Prp), while only yixili may be preceded by Prp bo. The co-occurrence restrictions involved are indicated below.

(See Table VIII on next page.)

TABLE VIII

CO-OCCURRENCE OF PREPOSITIONAL ELEMENTS

	Prp		PrV			
	mė *'from'*	bo *'as'*	gali NP *'to'*	tagi NP *'away from'*	yixili NP *'for'*	NP
(a)	x					x
(b)		x			x	
(c)		x				x
(d)			x			
(e)				x		
(f)					x	
(g)						x

Examples corresponding to Table VIII are given below.

E 157 (a1) Re ma xirxiri weya cox [mė]$_{Prp}$ [faa-li yoco]$_{NP}$
pick out just under reef
'They would just pick (them) out from under the reef.'

(a2) Xo be xaṁòò [mė]$_{Prp}$ [yiṁòò-la /yiiy/]$_{NP}$
go-ahead before-him
'Go ahead of him.'

(a3) Yi sa cuwayi-ya [mė]$_{Prp}$ [kantin]$_{NP}$
buy store
'I bought it from the store.'

(b1) Ye be mele [bo]$_{Prp}$ [yixili-xo /xeel/]$_{PrV}$
live
'He will live for you.'

(b2) Ye yegaage [bo]$_{Prp}$ [yixili-ya feefele lee]$_{PrV}$
work girl
'He works for this girl.'

(c) Ye sa la mele [bo]$_{Prp}$ [sila-li se-male yeliwici
become mother one child
tarṁale bedaya]$_{NP}$
boy fat
'She has become the mother of a fat boy.'

(d) Yado wee ye sa yagasi-ya /yiiy/ gė ye sa tafaale
time *touch* *turn*

[gali-ya se-male lemderaaraa]$_{PrV}$
spider

'As soon as she touched it, she turned to a spider.'

(e) Yi be le xasi-ya /yiiy/ [tagi-ya yiṁa lee]$_{PrV}$
carry *house*
'I will take it away from this house.'

(f) Yi be mele [yixili sulu-yexe ment]$_{PrV}$
'I will stay (there) thirty minutes.'

(g) Re wedi-ya /yiiy/ [cediyo-li melwee boxata-yire /yiir/]$_{NP}$
'They waited for her at the entrance to their village.'

It might be possible to reformulate BR *13* and BR *14* so that the co-occurrence restrictions in Table VIII are specified therein, but this is not attempted in order to maintain a greater simplicity in the base component. Such restrictions, moreover, are more adequately assigned to the Lexicon.

Another problem might be raised as to whether a special subclass of nouns, i.e. pseudo-prepositionals such as yiree- *'at, to'*, wȯȯ- *'on, to'*, la- *'in'*, etc., is to be separated from NP and assigned a separate category to be placed between Prp and NP in disjunctive relation with PrV in PR *13* as, for example, in

$$\text{PrepP} \longrightarrow (\text{Prp}) \left\{ \begin{matrix} (\text{Npr})\ \text{NP} \\ \text{PrV} \end{matrix} \right\},$$

where Npr is the category involving pseudo-prepositionals. As will be noticed in 4.7.6., this subclass contains a number of characteristics, both syntactic and morphological, which are not shared by many other nouns. Some syntactic characteristics follow.

(a) None of the pseudo-prepositionals may follow Vpr, i.e. the two sets are disjunctive.

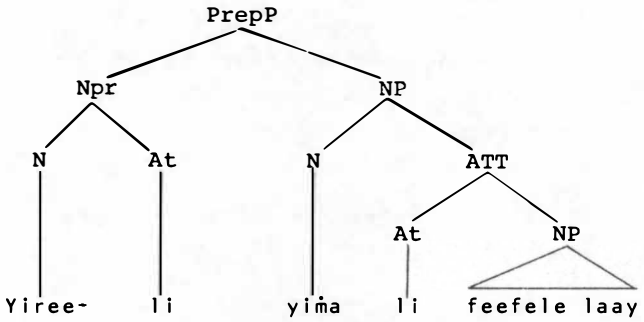
(b) None of them occurs as attributive to the other nouns, though the latter may follow the former entering into pseudo-prepositional constructions (e.g. *yiṁa-li yiree-... but yiree-li yiṁa).

(c) This subclass rarely occurs as the subject of a sentence or the object of VP or VB. Thus there is a parallelism between Npr and Vpr in that the occurrence of their members is limited to the position dominated by PrepP.

In spite of the above characteristics of the set of pseudo-prepositionals, as well as other pointed out in 4.7.6., the treatment followed

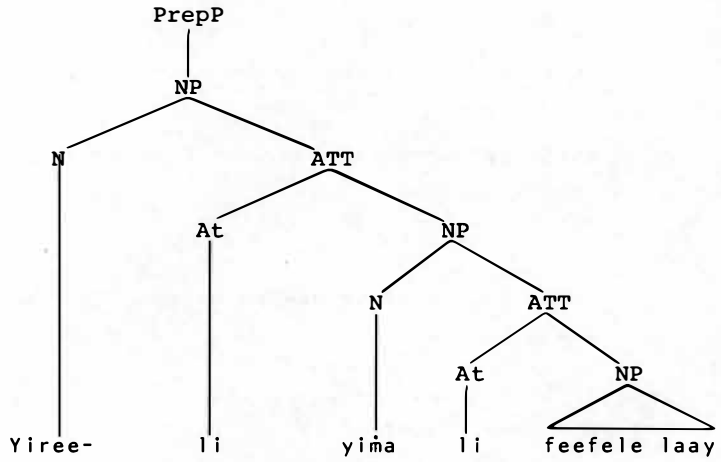
here is to include the set in NP for several reasons. First of all, the members of the set are morphologically nouns, since they cannot stand without a nominal suffix. Thus their structure is the same as N + an attributive suffix (+At) (e.g. yiree-li yiṁa *'at home'*). Secondly, an important generalisation would be sacrificed if pseudo-prepositionals were separated from NPs. That is, recursiveness in attributive constructions, which is a general process, could not cover pseudo-prepositionals. For example, yiree-li yiṁa-li feefele laay *'at the house of that girl'* would have the following structure.

E 158



This structure apparently lacks generality compared to the alternative in which pseudo-prepositionals are dominated by NP as may be observed in the following tree.

E 159



Finally, all the syntactic and morphological idiosyncracies of the set of pseudo-prepositionals may adequately be described in their lexical entries both in terms of inherent features and in terms of selectional restrictions.

4.7.4. *PREPOSITIONS PROPER* (+Prp)

4.7.4.1. So far only mė and bo are found in this class. The frequent occurrence of la *'in, at'* with some time words like palaliyolo *'evening'*, bogo *'night'* and some others such as tade *'sea'* will be interpreted either as a contracted form of la-li *'in, at + attributive affix'* or as a fossilised prefix of the following word as will be discussed later.

There do not seem to be co-occurrence restrictions which may be generalisable in a syntactically significant and simple way between Prp and the preceding element, i.e. the main verb in Predication, or one or both of the NPs in Identification. Prp occurs not only with action and stative verbs but also with NPs dominated by Vb. Furthermore it occurs frequently in Identification sentences. This fact may constitute one of the reasons that PrepP is separated from the other part of S at a high level, i.e. in BR 4. Examine the following examples.

E 160 (a) Yi [dipali-ya] xataatale [mė leba-li yaa-yi yeliwici]$_{PrepP}$

[*want* +V +state]	*wrestling*	*time*	*child*

'From my childhood, I've been interested in wrestling.'

(b) Re sa [buu] doxo [mė cuxu]$_{PrepP}$

[*come* +V +action]

'They came from Truk.'

(c) Re sa xayeda-ya waa kawee waa-yire yiree-li paaga-li
load *canoe* dm *at, with all*

makaa ye [mommaye] [mė wȯȯ-li faluya]$_{PrepP}$
those-which [*good* +V +state +Adj]

'They filled their canoes with all things which are good on the island.'

(d) Ye [[se-wo marama]$_{NP}$]$_{Vb}$ [mė yiiyage]$_{PrepP}$ gė ye sa mese.
Pm *one* *month* *it*
'In a month he died.'

(e) Ye coolopa yixi mė wolo lå re [xasi-ya] [bo xala-ca]$_{PrepP}$
many *fish* *turtle* *that* [*carry* +V +action] *food* (Cl)

'They brought many fish and turtles for our food.'

(f) [Yifaa]$_{NP}$ melee [yaa-mu]$_{NP}$ [mė yiiyage]$_{PrepP}$
which fm *yours*
'Which is yours among them?'

(g) [Se-male senseye]$_{NP}$ [feefele wee]$_{NP}$ [bo yixili-yire yeliwici
child
kalaay]$_{PrepP}$
dm
'The girl is a teacher for those boys over there.'

There are, however, some significant restrictions between Prp and the following element, as will be seen shortly.

4.7.4.2. The common meaning of mė is *'from'* but occasionally *'to'* or *'at'*, particularly when the place meant by the following noun is pinpointed. Examine the meanings in the following.

E 161 (a) Re sa dare weya cox [mė meta-li dawe wee]$_{PrepP}$
walk dr *just* *head* *channel*
'They just walked from the head of the channel.'

(b) Yi sa cuwayi-ya pinsan lee [mė kantin]$_{PrepP}$
buy *store*
'I bought this pencil at the store.'

(c) Yi loxo [mė siyaa-li Yasor]$_{PrepP}$
go *boundary*
'I went up to the boundary of Yasor.'

(d) Buu doxo [mė lėcėėcėė-li fala lee]$_{PrepP}$
middle *men's house*
'Come here to the middle of this men's house.'

Mė never occurs with PrV, but with NP. Even in its occurrence with NP, there are some generalisable restrictions. For instance, mė does not occur with pronouns, nouns with <+animate>, nouns meaning dwellings, portable items, etc., and nominalised verbs. In these cases, mė may occur if a pseudo-prepositional intervenes between mė and the following element.

E 162 (a) *Ye buu doxo mė yiir. *but* Ye buu doxo mė yiree-yire /yiir/.
'He came from them.'

(b) *Re sa cuwayi-ya mė yaramata wee.
but: Re sa cuwayi-ya mė yiree-li yaramata wee.
'They bought it from the man.'

(c) *Re sa buu logo mė baarkoo.
come in ship
but: Re sa buu logo mė yicuu-li baarkoo.
'They came in from the ship.'

(d) *Biyaa lee yilaa ye fėėru mė pėraase.
fm *made* *rice*
but: Biyaa lee yilaa ye fėėru mė yiree-li pėraase.
'Beer is made from rice.'

(e) *Mė yiitey melee ye buu doxo salapiya lee?
who fm *money*
but: Mė yiree-li yiitey melee ye buu doxo salapiya lee?
'From whom did you receive the money?'

(f) *Re sa pėyė loxo mė xataxace-li xobaye.
stop *throw* *spear*
but: Re sa pėyė loxo mė yiree-li xataxace-li xobaye.
'They stopped the throwing of spears.'

Mė, on the other hand, occurs with all nouns having "location" implications such as sukuun *'school'*, Meriken *'America'*, yiiyaa *'where?'*, yixaa *'here'*, yiluxu *'back side'* to say nothing of all the pseudo-prepositionals which are basically locational. Then, a simple generalisation will be to subclassify all nouns into <+locational> and <-locational> according to the possibility of their occurrence or non-occurrence with mė, and the lexical entry for mė will be specified with the feature [+__[+locational]]. The examples just given are <+locational>, while such nouns as baarkoo *'ship'*, yiṁa *'house'*, mogoyo *'food'*, pėraase *'rice'*, yiir *'they(Pro)'*, medaa *'what?'*, yiitey *'who?'* are <-locational>. Observe the following examples for <+locational> nouns.

E 163 (a) Ye buu doxo yiiy melmėlė laa [mė yiiyaa]$_{PrepP}$
typhoon dm [*where*, +N, +loc]
'Where is the typhoon coming from?'

(b) Xa buu doxo [mė yixaa]$_{PrepP}$ bo si be sefeedele.
Pm [*here*, +N, +loc] *so-that* *talk*
'You(pl), come over here so that we may talk!'

(c) Ye sa buu logo [mė lagace-li tade]$_{PrepP}$
[*beside*, +N, +loc] *sea*
'He came in from the side of the sea.'

(d) Ye sa suu weya [mė luxu-li yalapa wee]$_{PrepP}$
stand dr [*back* +N,+loc] *way*

'He stepped outside the path.'

(e) Re sa kakka logo mogoyo [mė yicuu-li waa-kawee]$_{PrepP}$
carry *food* [*on* +N +loc]

'They brought the food from the canoes.'

(f) Buraxo cox melee xaxele-li yaa-li Bexaw memmele
smoke fm *sign* Cl *staying*

gali waaxeye [mė yiree-li kko-la]$_{PrepP}$
future [*at* +N +loc] *custom*

'According to her custom, smoke was the sign to decide where Bexawo would be staying.'

(g) Yi sa yafara-ya [mė la-li yiiy yusaxale wee]$_{PrepP}$
carry [*in* +N +loc] *fish-trap*

'I carried it from that fish trap.'

(h) Ye coolopa yikalaa ye towase [mė yiṁöö-li yikalaa ye
many *those* *destroyed* [*before* +N +loc]

mele diye]$_{PrepP}$
stay dr

'There were more of those that were destroyed than those that were left.'

(i) Medaa melee ye bbarexe [mė wöö-mu]$_{PrepP}$
what fm *pain* [*on* +N,+loc]

'What is your pain?'

(j) Tay siilaye [mė yiiyage]$_{PrepP}$ gė sa yoxo lå ye riirii.
ng [*there* +N,+loc] *possible* *get-married*

'Not long thereafter, he could get married.'

4.7.4.3. Bo *'for, as'* occurs with yixili (+Vprs) but with no other <+Vprs> word. It never occurs with pronouns unless yixili intervenes. It may not be followed directly by <+locational> nouns, but, if yixili

intervenes, those <+locational> nouns which can be used as a subject or object (e.g. sukuun, Meriken) may follow bo (e.g. bo yixili Meriken *'for the sake of America'*) while other <+locational> nouns such as pseudo-prepositionals, yiiyaa *'where?'*, anaphoric yiiyage *'there'* may not (e.g. *bo yixili yiree-li yaramata wee *'on the man's behalf'*). Detailed selectional restrictions involving bo have not been investigated, but it seems that it may occur with any concrete nouns if they are not <+locational>.

E 164 (a) Feefele lee lawu-yi /gaag/ ye be le mele [bo lulapa]$_{PrepP}$
girl Cl *live*

[wȯȯ-li paaga-li faluya-kaa]$_{PrepP}$
all *island* dm

'This girl of mine will become the queen of all these islands.'

(b) Wolo sa mele cox [bo yaa-yire re-Losiyop]$_{PrepP}$
turtles stay
'Turtles have just remained as the possession of the Losiyop people.'

(c) Ye fėėru-yeyi /gaag/ [bo kaapin]$_{PrepP}$
make
'He made me a captain.'

(d) Yiwee ye sa fėėru-ya [bo se-wo piskaa]$_{PrepP}$
then *spear*
'Then he made it into a fishing spear.'

(e) Re sa xammale-ya /yiiy/ [bo yixili-xo /xeel/]$_{PrepP}$
prepare
'They prepared it for you.'

Incidentally, bo and lȧ look much the same in function on the surface. In most cases, lȧ may replace bo with a slight difference in meaning.

E 165 (a) Ye mele se-xaye mȧyi bo xala-li se-male yelusu.
NuCl *breadfruit* Cl*(food)* *ghost*
'There is a breadfruit tree for a ghost's food.'

(a^1) Ye mele se-xaye mȧyi lȧ xala-li se-male yelusu.
'There is a breadfruit tree which is a ghost's food.'

(b) Ṁale kalaa bisi-yi /gaag/ re ma faga gali-ya /yiiy/ cox melwee
man dm *brother* *give* *that*

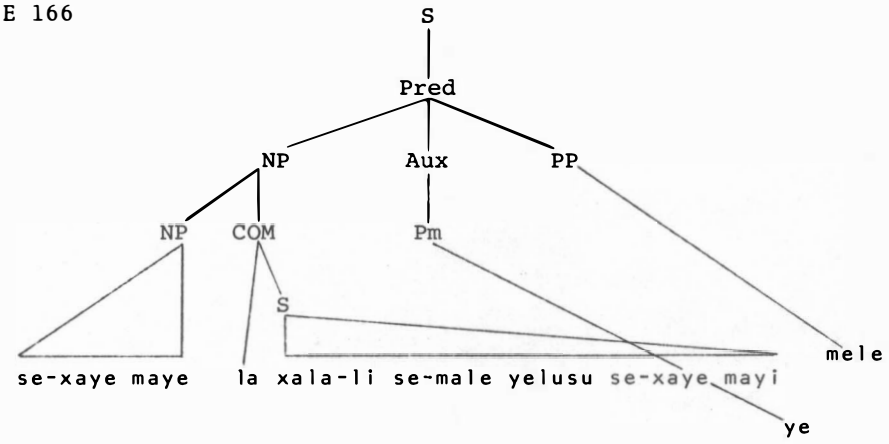
xilLi yuya-li wolo bo yilidi-la /yiiy/.
skin *neck* *share*

'His brothers gave him the skin of turtles' neck for his share.'

(b[1]) Ṁale kalaa bisi-yi /gaag/ re ma faga gali-ya /yiiy/
cox melwee xilLi yuya-li wolo là yilidi-la /yiiy/.
'My brothers gave him the skin of turtles' neck which was his share.'

It has been decided that bo is a preposition but là is a complementiser on the grounds that là, apart from its meaning, can most adequately be described as a complementiser initiating sentences of various types. Thus, là xala-li se-male yelusu in E 165 (a[1]) is interpreted as derived from the underlying là xala-li se-male yelusu se-xaye màyi which is an Identification sentence, as indicated in the tree below.

E 166



4.7.5. *VERBAL PREPOSITIONS* (Vpr)

4.7.5.1. Gali *'to'*, tagi *'away from'*, and yixili *'for'* are called verbal prepositional stems (Vprs), since they inflect like transitive verbs but only occur dominated by the category PrepP. Vprs and the following optional Os (object suffix) are the immediate constituents of Vpr. Os in Vpr will be taken up later along with Os in Vp (4.12.1.).

The object NP of the main verb often follows PrV if no surface ambiguity ensues, in particular, when PrV contains a pronoun as the object NP (see *TR 16*). Compare the following.

E 167 (a) Yi be [faga]$_{Vp}$ [yiir]$_{NP}$ [gali-ya yaramata wee]$_{PrepP}$
give
'I will give them to the person.'

(a[1]) Yi be le faga [gali-xo /xeel/]$_{PrepP}$ [tarṁale lee]$_{NP}$
boy
'I will give the boy to you.'

(b) Yi be le xasi-ya [tagi-ya yiṁa lee]$_{PrepP}$ pese wee$_{NP}$
carry *house* *dog*
'I will take the dog away from the house.'

The syntactic relation between gali and tagi is closer than that between either of them and yixili in that the former never follows mė or bo.

4.7.5.2. Gali has the basic meaning *'direction toward'*. It is certainly the most frequent Vpr in texts with its various interrelated meanings such as *'to, with, in, for'* as may be observed in the following.

E 168 (a) Ye sa [xasi-yVre/yiir/ loxo]$_{VP}$ [gali(-ya) faluya-yire
carry *island*
/yiir/]$_{PrepP}$
'He took them to their island.'

(b) Ye [ffėsėgu]$_{VP}$ [gali-ya xece]$_{PrepP}$
call *rat*
'He shouted to the rats.'

(c) Yi [ffėrėxu]$_{VP}$ [gali-xo /xeel/]$_{PrepP}$ [se-male pese]$_{NP}$
bind *dog*
'I bound a dog for you.'

(d) [Matayi]$_{VP}$ [gali-ya yaramata laay]$_{PrepP}$
'Keep an eye on him!'

(e) Mogoyo kaa ye sa [lapa]$_{VP}$ [gali-yVre yeliwici]$_{PrepP}$
food dm *enough*
'The food is enough for the children.'

(f) Ye sa [yafa]$_{VP}$ [gali(-ya) ppiya-li Moxmox]$_{PrepP}$
swim *sand*
'He swam to the sands of Mogmog.'

(g) Yilaa melwee xa sa [teye]$_{VP}$ [gali(-ya) Xeerob]$_{PrepP}$
that *that* *meet*
'That's how we(excl) met Xeerob.'

(h) Xo be [xėru]$_{VP}$ [gali-ya /yiiy/]$_{PrepP}$
scratch
'Scratch with it!'

(i) Si sa [loxo]$_{VP}$ [gali yixalaay]$_{PrepP}$
there
'Let's go over there.'

It is noted that gali occurs with a wide range of subclasses of NP. However, it does not appear with the pseudo-prepositionals and the other <+locational> nouns, which may not occur in places other than those dominated by PrepP.

4.7.5.3. Tagi *'away from'* differs from mė *'from, at, to'* in that, apart from the semantic difference, tagi cannot be followed by pseudo-prepositionals and other <+locational> nouns which cannot be a subject or object, e.g. yiiyaa *'where'*. Examples follow.

E 169 (a) [Yaga]$_{VP}$ [tagi-ya /yiiy/]$_{PrepP}$
touch
'Keep off!'
Cf. Yaga gali-ya. *'Touch it!'*

(b) Ye sa [xawu]$_{VP}$ [tagi-ya yegaage]$_{PrepP}$
run-away *work*
'He ran away from the work.'

(c) Ye sa [xere]$_{VP}$ [tagi-xica /xiic/]$_{PrepP}$
stay
'He stayed away from us(incl).'

(d) Re sa [xasi-ya /yiiy/]$_{VP}$ [tagi-ya xaleesiyaa wee]$_{PrepP}$
church
'They took it away from the church.'

(e) Ye [fawuxili-yeyi /gaag/]$_{VP}$ [tagi-ya ppiya]$_{PrepP}$
take-by-rowing *sand*
'He took me by rowing to the beach.'

4.7.5.4. Yixili *'for'* occurs very frequently with bo.

E 170 (a) Lulapa wee ye sa [taptape mogoyo]$_{VP}$ [yixili-yVre saldawe
king *need* *food*
kawee]$_{PrepP}$
'The king needed food for the soldiers.'

(b) Yi be [mele]$_{VP}$ [yixili sulu-yexe ment]$_{PrepP}$ [wȯȯ-li
thirty *on*
Kuwacuren]$_{PrepP}$
'I will be staying on Kwazuren for thirty minutes.'

(c) Ye sa dipali-ya /yiiy/ lå ye be le mele [bo yixili-yVre /yiir/]
want *stay*
'He wanted her to be their queen.'

(d) [Gaag]$_{NP}$ [senseye]$_{NP}$ [bo yixili-yVre yaramata]$_{PrepP}$
I
'I am a teacher for the people.'

4.7.6. *PSEUDO-PREPOSITIONALS*

4.7.6.1. As mentioned earlier, pseudo-prepositionals constitute a subclass of nouns dominated by NP in *BR 13*. They are lexically so classed because (1) they are bound morphemes occurring with an attributive suffix; (2) they occur most frequently dominated by PrepP, i.e. they rarely become the subject or object of a sentence; (3) they may not be attributive to the nouns which are not pseudo-prepositionals; (4) all of them may occur after Prp mė but never after bo and after Vprs gali, tagi, or yixili; (5) they share the feature <+locational>; and (6) they may undergo adjectivisation (see 4.10.5. and *TR 38*).

Pseudo-prepositionals are subgrouped into two series, those which have possessive inflection and those which do not.

TABLE IX
PSEUDO-PREPOSITIONALS

+inflection		*-inflection*	
+defective	*-defective*		
	yiree-	*	*'at'*
	yifaa-	faa-	*'under'*
	wuwoo-	woo-	*'on'*
	lagace-	gace-	*'beside'*
	yimoo-	*	*'before'*
	lepada-	*	*'between'*
	luwelu-	*	*'among'*
yicuu-		*	*'on (tree, vehicle)'*
yila-		la-	*'in'*

Yicuu- and yila- are <+inflection> but defective in that they inflect only for 3rd per. sg. <-animate>. Yicuu-la *'on it'*, yicuu-li baarkoo *'on ship'*; yila-la *'in it'*, yila-li yima *'in the house'*; but *yicuu-mu *'on you'*, *yila-yi *'in me'*, etc. The subset with <+inflection> and <-defective> inflect for all the persons and numbers, while the <-inflection> set appears always and only with the attributive affix -li (e.g. faa-li but *faa-la). As a natural consequence, this set never appears at the end of a sentence, while the set with <+inflection> does, from the viewpoint of surface structures. Compare the following.

E 171 (a) Ye buu logo yila-la.
'He entered inside.'

Ye buu logo yila-li yiṁa.
'He entered the house.'

Ye buu logo la-li yiṁa wee.
'He entered the house.'

but: *Ye buu logo la-li.
(*la-la)

(b) Ye mele yifaa-la.
'He lives under it.'

Ye mele yifaa-li fase wee.
'He lives underneath the stone.'

Ye mele faa-li fase wee.
'He lives under the stone.'

but: *Ye mele faa-li.
(*faa-la)

(c) Yi be suu daxe wuwòò-mu.
'I will stand on you.'

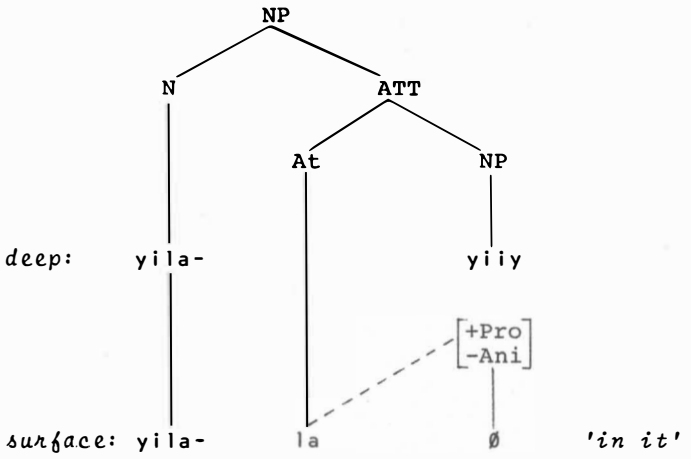
Yi be suu daxe wuwòò-yire wolo kalaa.
'I will stand on those turtles.'

Yi be suu daxe wòò-li kaxoo lee.
'I will stand on this box.'

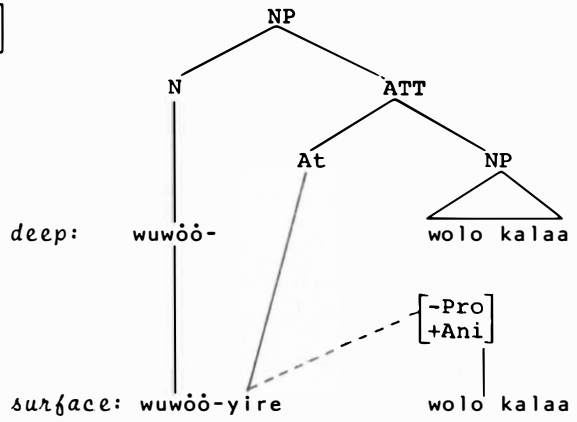
but: *Yi be suu daxe wòò-li.
(*wòò-la)

In the light of syntactic rules, the series with <+inflection> and that with <-inflection> are both derivable from Nm → N⌢ATT (*BR 18*) and ATT → At⌢NP (*BR 19*), but the difference between the two series lies in the fact that the former occurs in __ At⌢$[\pm Pro]_{NP}$ but the latter is limited to the environment __ At⌢$[-Pro]_{NP}$. Furthermore, the defective subset occurs only in __ At⌢$\left[\begin{smallmatrix}\pm Pro\\ -Ani\end{smallmatrix}\right]_{NP}$ compared with the non-defective subset which has a wide environment, i.e. __ At⌢$\left[\begin{smallmatrix}\pm Pro\\ \pm Ani\end{smallmatrix}\right]_{NP}$. Examine the following illustrative trees.

E 172 [+inflection, +defective]

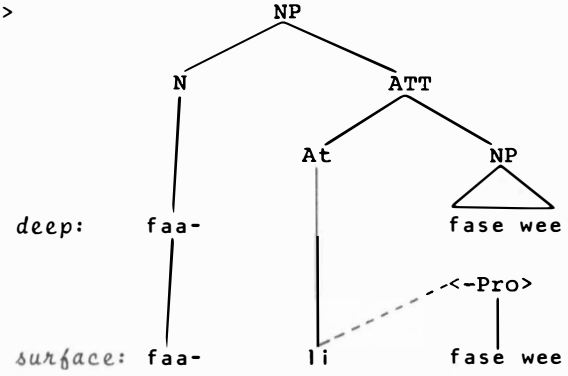


[+inflection, -defective]



'on those turtles'

<-inflection>



'under the stone'

Except for lagace- and wuwȯȯ-, the series with <+inflection> have a morpheme (prefix) yi- which probably has the meaning *'it'*. Since there are some other words with this prefix, they will be discussed together in 4.14. (Noun Derivation). Wu- in wuwȯȯ- seems to have been derived from yi- by way of assimilation, while it is not clear whether la- in lagace- is related to la- *'in, at'* as in la tade *'in the sea'*.

The following two pairs of nouns look like pseudo-prepositionals, but they are not so classified since the forms with yi- are not bound, thus occurring in sentence-final position without any suffix and occur freely as a subject or object.

[+inflection, +defective]	<-inflection>	
yiṁiri	ṁiri-	*'after'*
yiluxu	luxu-	*'back-side'*

E 173 (a) Xo la mele mė {yiṁiri, *ṁiri, *ṁiri-la, yiṁiri-la}
go stay from
'Come from behind it!'

(b) Xo la mele ṁiri-li yaramata lee.
'Come after this person!'

(c) Yi buu logo mė {yiluxu, *luxu, *luxu-la, yiluxu-la}
'I came in from the back-side.'

(d) Ye sa suu weya mė {yiluxu-li, luxu-li} yalapa wee.
stand dr
'He stepped outside the path.'

(e) Yiluxu-li faluya yilaa malaa liliya-li yaa-yire
island fm *that place* Cl
feefele wȯȯ-li mmade.
woman on low tide
'The back-side of the island is the place for women at low tide.'

4.7.6.2. Yiree- *'at, by, regarding, to'* may occur with those nouns which cannot be preceded directly by Prp mė, i.e. nouns with the feature <-locational>. Thus it may not appear with Meriken *'America'*, yiiyaa *'where'*, meteraale *'east'*, etc. More specifically, it occurs with the following.

(1) <+animate> NP including pronouns

E 174 (a) Yi sa gucu [yiree-li pese wee]$_{PrepP}$
dog, -loc, +ani

'I am tired of the dog.'

(b) Ye kalla daxe [yiree-yi /gaag/]$_{PrepP}$
I, +Pro, -loc, +ani

'He looked up at me.'

(2) <+time> NP

E 175 (a) Si be pèyè loxo yaa-ca yegaage [yiree-li se-yexe kulok]$_{PrepP}$
stop dr *work* *10* -loc, +time

'We will stop working at ten o'clock.'

(b) Yi sa tamolo-li senseye [yiree-li sukuun lee]$_{PrepP}$
chief

[yiree-li raxe wee]$_{PrepP}$
year dm
-loc, +time

'I was principal of this school last year.'

(3) <+abstract> NP

E 176 (a) Ye ttiri [yiree-li dodoro-li wolo]$_{PrepP}$
quick *catch* <+abst> *turtle*

'His catching a turtle was quick.'

(b) Ye kkela [yiree-li ddare]$_{PrepP}$
run <+abst>

'He was a strong runner.'

(c) Medaa melee "school" [yiree-li xase-li medawe]$_{PrepP}$
what fm *language* <+abst> *ocean*

'What is "school" in Ulithian?'

(4) other nouns with <-locational>

E 177 (a) Ye ma mogoyo [yiree-li boxata-la]$_{PrepP}$ [la palaliyolo]$_{PrepP}$
hb *home* <-loc> *in evening*

'He eats at home in the evening.'

(b) Coon melee ye kȯȯkomo [yiree-li raata]$_{PrepP}$
fm *play* *bicycle* <-loc>
'John is playing with a bicycle.'

4.7.6.3. Yifaa- *'its underside'* and faa- *'under'* occur not only with concrete nouns but also with abstract nouns.

E 178 (a) Yalapa-li xowu wee ye sa dėldėlė [yifaa-li yalo]$_{PrepP}$
road *lavalava* *shining* faa-li *sun*
'The road of lavalava was shining under the sun.'

(b) Si te wa ma fedexe [faa-li se-wo]$_{PrepP}$
again fight *one*
'We(incl) will not quarrel ever again.'

(c) Ye sa rėba-ya daxe tuutuwa-li suukara wee [faa-li
hide dr *bag* *candy*

melwee siya-la]$_{PrepP}$
that *belly*

'It concealed the bag of candies under its stomach.'

(d) Xo yitoli salapiya wee [faa-li yifaa]$_{PrepP}$?
put *money* *which*
'Under which did you put the money?'

(e) Ye sa rogrogo pupugu-li wuwaa-li yiiy mȧyi lȧ yiiy
hear *falling* *fruit* *that*

yaramata wee ye sa pepeda-ya [yifaa-la]$_{PrepP}$
throwing

'He heard the falling of the breadfruits which the person was dropping.'

4.7.6.4. Wuwȯȯ- *'its upside'* and wȯȯ- *'on'* occur most often with <+concrete> NP, but occasionally also with <+time> nouns with the meanings *'on, at, in, for'*. Wȯȯ- does not occur with pronouns as already indicated.

E 179 (a) Tėėt yiir faluya kalaa yilaa te yoor [yiree wuwȯȯ-la]$_{PrepP}$
some they island dm fm ng *exist tree*

bo ppiya cox.
because sand just

'As for some of those islands, there is no tree on them but just sandy beach.'

(b) Ye mele se-male lėgė [wuwȯȯ-yi /gaag/]$_{PrepP}$
ant
'There's an ant on me.'

(c) Si sa loxo [wȯȯ-li ppiya]$_{PrepP}$
go
'Let's go to the beach.'

(d) Re mele [wȯȯ-li Baalaw]$_{PrepP}$
stay
'They live in Palau.'

(e) Dȧȧ daxe [wȯȯ-li sukuun lee]$_{PrepP}$
climb dr
'Climb up on this school!'

(f) Ye sa sėrė bo yi be le yafa logo [wȯȯ-li faluya]$_{PrepP}$
say *that* *swim* dr *island*
'He said that he would swim to the island.'

(g) Yi towee mogoyo yixi [wȯȯ-li se-wo wiik]$_{PrepP}$
ng *eat* *fish* <+time>
'I won't eat fish for a week.'

(h) Wȯȯ-li ṁiri-li melwee, ye sa poso fedexe wee.
afterward that $_{PrepP}$ *subside war* dm
'After that, the war subsided.'

4.7.6.5. Lagace- *'its side'* and gace- *'beside'* occur in the following examples.

E 180 (a) Ye sa la suu [{lagace-li / gace-li} loo wee]$_{PrepP}$
go stand *water-storage*
'He went and stood beside the water storage place.'

(b) Re mele [{lagace-li / gace-li} xaleesiyaa wee]$_{PrepP}$
stay *church*
'They are near the church.'

(c) Re sa maroo diye [lagace-yi /gaag/]$_{PrepP}$
sit dr
'They sat around me.'

(d) Ruwė-male re memmele [yiree-yi /gaag/]$_{PrepP}$ [la-li
two-NuCl *staying*
se-wo yiṁa]$_{PrepP}$ [{lagace-li / gace-li} tade]$_{PrepP}$
one *house*
'Two of them are living with me in a house near the sea.'

4.7.6.6. Yiṁȯȯ- *'in its front, more than'*

In the meaning of *'in front of'*, yiṁȯȯ- seems to occur only before nouns with <+motion> such as vehicles, people, animals, machines, etc. and before a pronoun. In the comparative meaning *'more than'*, in which case Prp mė optionally precedes, yiṁȯȯ- may occur with any subset of NP as far as semantically acceptable.

E 181 (a) [Yiṁȯȯ-li lawu-li yiitey]$_{PrepP}$ melee ye sa mese?
Cl*(child)who* fm *die*
'In front of whose child did it die?'

(b) Re sa xaṁȯȯ [yiṁȯȯ-yi /gaag/]$_{PrepP}$
precede
'They went ahead of me.'

(c) Darxos ye ṁale [mė yiṁȯȯ-li Manuwal]$_{PrepP}$
man, old
'Darxos is older than Manuel.'

(d) Ye pallege yiree lee [(mė) yiṁȯȯ-li yilaay]$_{PrepP}$
big *tree* *that*
'This tree is bigger than that.'

(e) Ye coolopa [yikalaa ye towase]$_{NPs}$ [mė yiṁȯȯ-li
many *those* *broken*
yikalaa ye mele diye]$_{PrepP}$
stay dr
'There were more of those which had been broken than those which were left.'

4.7.6.7. Lepada- *'between'* is the only pseudo-prepositional which may have a reduplicated form, i.e. lepadpada-, which indicates plurality. No particular co-occurrence restriction is noticed between lepada- and the following NP so far as the NP has <-singular> in deep structures.

E 182 (a) Buu doxo, xo be maroo diye [lepada-mami /xaamami/]$_{PrepP}$
sit dr
'Come and sit between us(excl)!'

(b) Raxe-li Ben ye mele [lepada-li raxe-li Tom mė gaag]$_{PrepP}$
age
'Ben's age is between Tom's and mine.'

(c) Yiwee gė [lepadpada-li yiṁa]$_{PrepP}$ yilaa yaramata re
then, and *house* fm *people*

ma fadė fulorase mė kumėėtiya mė wucu mė xurxuru.
hb *plant flower potatoes banana lemon, orange*
'And between houses, people plant flowers, potatoes, bananas and oranges.'

4.7.6.8. Luwėlu- *'among'* presupposes not *'dual'*, but *'plural'* in the following NP.

E 183 (a) Xo la mȯlo [luwėlu-li malili kalaa]$_{PrepP}$
go hide luwėl *name-of tree*
'Go and hide among the "malil" trees!'

(b) Re sa loxo [luwėlu-li yiȧa-li paaga-li loxo Suutumil]$_{PrepP}$
go all dr
'They went among all the houses of Suutumil (a village in Yap).'

(c) [Luwėlu-yire /yiir/]$_{PrepP}$ gė sulu-male mė yiree-yire /yiir/
three from at
melee re-sukuun.
fm
'Three of them are students.'

(d) Yilaa ye mele Xuwam melee ye lėlaaye [mė luwėlu-mami
that fm *long, tall*
/xaamami/]$_{PrepP}$
'The one who lives in Guam is the tallest among us.'

4.7.6.9. Yicuu- *'on'* is limited in use to trees and vehicles. The defective nature in inflection is, therefore, self-evident since trees and vehicles are grammatically inanimate.

E 184 (a) Ye mele [yicuu-la /yiiy/]$_{PrepP}$
'He stays on it (a tree, a boat, or a plane).'

(b) Yaramata wee ye ma mele [yicuu-li yiiy mȧyi wee]$_{PrepP}$
breadfruit
'The person used to stay on the breadfruit tree.'

(c) Re sa la kakka logo mogoyo [mė yicuu-li waa
kawee waa-yire /yiir/]$_{PrepP}$
'They went and brought food from (on) their canoes.'

4.7.6.10. Yila- *'its inside'* and la- *'in, inside'* appear with nouns with <+concrete>, <+abstract>, or <+time>. But they do not occur with <+animate> NP, which is the reason for yila- being defective in inflection. Differing from Trukese (Dyen 1965:28), la-la never appears in any position and la-li never occurs sentence-finally without a following NP, while only yila-la is permitted at the end of a sentence.

E 185 (a) Ye sa buu logo [yila-la /yiiy/]$_{PrepP}$
come dr
'He entered inside.'

(b) Re ma masėrė [yila-li yiṁa]$_{PrepP}$
sleep *house*
'They usually sleep inside the house.'

(c) Dare loxo [la-li yalapa laa]$_{PrepP}$
walk *way*
'Walk away on the pathway!'

(d) Rudiy ye yitoli waa-li wȯȯlfuluya wee [la-li xaraac]$_{PrepP}$
put *canoe-of on-land*
(automobile)
'Rudy kept the car in the garage.'

(e) Yoor piipiya [la-li sėpale lee]$_{PrepP}$?
diving-
goggles
'Are there any diving goggles in this canoe house?'

(f) Ye sa mammagi-ya /yiiy/ [mė la-li dipa-la /yiiy/]$_{PrepP}$
think *feeling*
<+abstr>
'He thinks about him from his heart.'

(g) Ye tay mogoyo [la-li se marama]$_{PrepP}$ yiwee sa mese.
month *then* *die*
<+time>
'He died within a month after he stopped eating.'

Beside yila- and la-, there is another form which occurs without any suffix, i.e. la (its allomorph le or lė) with the meaning *'in, on, at'*. La seems to have been derived historically from la-li, which assumption is supported by the informant reaction that la is always equated with la-li semantically. In some instances, free variation between la and la-li is still active.

E 186 {la boxata-la / la-li boxata-la} *'in his house'* {la dipa-la / la-li dipa-la} *'in his mind'*

In most cases, however, they are mutually exclusive, conditioned by the following noun or noun phrase. La may occur with the numbers of a small set, mostly <+time> words. The following are examples in which only la appears.

E 187 la palaliyolo *'in the afternoon'*
la faxaafe *'in the evening'*
la bogo *'at night'*
la maliyele *'in the morning'*
la rale *'in the daytime'*
la be-li *'at the age of'*
la tade *'in the sea'* : <-time>

Note that la in the above examples may optionally be replaced by la-li if the following noun is followed by a demonstrative enclitic or a possessive suffix.

E 188 la-li bogo-yi *'tonight'*
la-li rale lee *'today'*
la-li bogo lee *'tonight'*

From the above observation, la might simply be viewed as an allomorphic variant of la-li. A problem arises, however, in this interpretation. Observe the following examples.

E 189 (a) Ye sa mele bo la tade.
stay as
'It has become sea.'

(b) Ye sa mele bo la rale.
'It has become day.'

(c) Re-la-tade
'people of the sea, Navy, etc.'

In E 189, la follows Prp bo and nominal prefix re- *'people'*. If la is considered either as an allomorph of la-li or as a separate preposition, E 189 would constitute a serious exception to the generalisation that Prp bo is never followed by any pseudo-prepositional or by another Prp and re- occurs only before a noun. One possible way out is to regard la as a kind of fossilised prefix of the following noun, though this interpretation has its own weakness in that non-occurrence of la-li + la + N and complementarity between la-li and la will have to be explained.

4.7.7. *TIME WORDS*

As indicated above, <+time> words within the NP dominated by PrepP

do not have Prp mė as their immediately preceding member. Now, all <+time> words may be divided into two sets according to whether they may be preceded by a pseudo-prepositional or not. The one set is closed with limited members which may not co-occur with a pseudo-prepositional, but the other set is open. The former consists of traditional time adverbials and the latter simply of <+time> nouns.

Time adverbials are of the following sort.

E 190 (i) fėtėėtė *'later'*
lalow *'yesterday'*
musuwee *'long ago'*
walsuu *'tomorrow'*
yigȧd *'when?'*

(ii) talega-li lalow *'day before yesterday'*
mėrelaxo-li talega-li lalow *'two days before yesterday'*
wȯtalega-li lalow *'day after tomorrow'*
wȯrelaxo-li lalow *'two days after tomorrow'*
wȯsapalaxo-li lalow *'three days after tomorrow'*

(iii) yixalaa *'today, now'*
yixala-kaa *'nowadays'*
yixa-wee *'before'*
yixa-kawee *'old days'*

Sentence examples in which the above words appear follow.

E 191 (a) Xo sa weri-ya feefele wee [yigȧd]$_{PrepP}$?
'When did you see the girl?'

(b) Re weri-ya yiree wee [lalow]$_{PrepP}$
'They saw the tree yesterday.'

(c) Xo be buu doxo [yado-faa]$_{PrepP}$ [walsuu]$_{PrepP}$?
'What time are you coming tomorrow?'

(d) Yi sa kagali-xo /xeel/ kofa-la /yiiy/ [fėtėėtė]$_{PrepP}$
tell *result, about*
'I will tell you about it later.'

(e) Re-cȯȯ kalaay re xasi-ya loxo melee [yixalaay]$_{PrepP}$
people dm *carry* dr *this* *there*
[yixalaa]$_{PrepP}$
now
'They take this away (and put it) there now.'

(f) Xa mommaye fagali [yixa-wee]$_{PrepP}$ mė yaramata wee.
we good together before and person that
'We(excl) were friends once before.'

The set of <+time> nouns is open. Only some representative words are illustrated below.

E 192 (i) maliyele *'morning'*
palaliyolo *'afternoon'*
faxaafe *'evening'*
bogo *'night'*

(ii) rale *'day'*
raxe *'year'*
yado *'time'*

The examples given in E 192 may be followed by a demonstrative enclitic. All demonstrative enclitics have tense implications after the above kinds of time words, as may be seen in the following diagram.

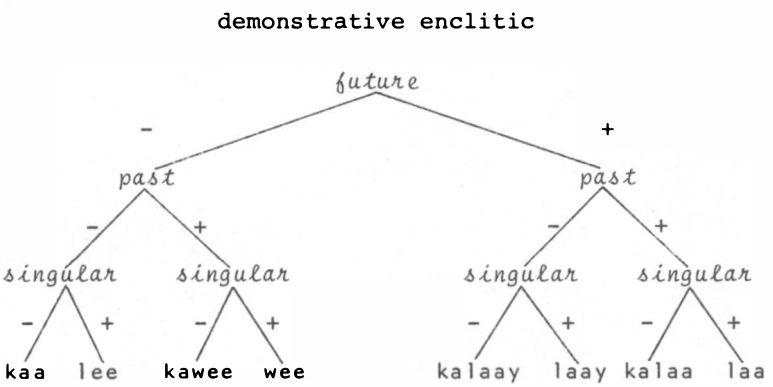


FIGURE 7

TEMPORAL FEATURES OF DEMONSTRATIVE ENCLITICS

E 193 (a) rale lee *'today'*
rale kaa *'nowadays'*
rale wee *'the day (past)'*
rale kawee *'those days (past)'*
rale laay *'the day (future)'*
rale kalaay *'those days (future)'*
rale laa *'that day (past and future)'*
rale kalaa *'those days (past and future)'*

(b) raxe lee *'this year'*
raxe ka *'these years (present)'*
raxe wee *'last year'*
raxe kawee *'those years (past)'*
raxe laay *'next year'*
raxe kalaay *'those years (future)'*
raxe laa *'that year (past and future)'*
raxe kalaa *'those years (past and future)'*

The other words behave similarly except that yado *'time'* lacks *yado-laay and *yado-kalaay.

4.7.8. *PLACE WORDS*

Another large subclass of NP dominated by PrepP consists of place words with the feature <+locational>. They may directly be preceded by Prp mė. It was mentioned that pseudo-prepositionals are also <+locational> nouns, and they may thus be classed as place words. Some examples of this subclass follow.

E 194 (i) leboso *'place'*
siyaa *'boundary'*
sukuun *'school'*
xaleesiyaa *'church'*
yiiyaa *'where?'*
yiluxu *'back side, ocean side'*

(ii)

Baalaw	*'Palau'*	Coosen	*'Korea'*
Cuxu	*'Truk'*	Doroleg	*(a Ulithian islet)*
Kogkog	*'China'*	Malilaa	*'the Philippines'*
Meriken	*'America'*	Saapan	*'Japan'*
Sayipel	*'Saipan'*	Wȯ̀ȯ̀l	*'Guam'*
Yap	*'Yap'*	Yasor	*(a Ulithi islet)*

(iii) yixaa (*yixalee) *'here'* : yikaa *'here(pl)'*
yixaa laa *'there'* : yikaa laa *'there(pl)'*
yixaa laay *'over there'* : yikaa laay *'over there(pl)'*
*yixaa wee : *yikaa wee

E 195 (a) Re-cȯ̀ȯ́ kawee re mele la-li yiṁa lee re sa loxo [yiiyaa]$_{PrepP}$?
people dm *stay in house go where*
'Where have the people in this house gone?'

(b) Xo sa yafa [leboso wee yi ma tattala pàwẁù-yi /gaag/
swim place hb *wash hand-my*

yiiyage]$_{PrepP}$
there
(anaphoric)

'You swam where I washed my hands.'

(c) Xeel xo sa loxo [sukuun]$_{PrepP}$
'You went to school.'

(d) Gaag yi sa wewedi-yVre /yiir/ [siyaa-li yaa-yire /yiir/
waiting *boundary*

buu doxo]$_{PrepP}$
'I waited for them to come.'

(e) Yi dipali-ya yi be loxo [Meriken]$_{PrepP}$
'I want to go to America.'

(f) Re tay mele [yixaa laay]$_{PrepP}$
ng *stay*
'They are not there.'

(g) Yoor melaaye-li pèraase kawee yaa-yire /yiir/ [yikaa laay]$_{PrepP}$
exist field *rice*
'Their rice fields are over there(pl).'

4.7.9. *ANAPHORIC* yiiyage

Yiiyage is a <+locational> noun occurring only under the domination of PrepP. It may occur after Prp mè, but never after Prp bo, Vpr, or any pseudo-prepositional. There are two ways in which yiiyage is introduced in sentences: by the base rule, and by TRs. In both cases, the meaning is anaphoric, the first denoting something in the real world and the second filling a slot left open by an item which has been dropped because of the identity condition. As will be evidenced below in the case of the transformational introduction of yiiyage, it is replaceable for all the constituents of a PrepP but mè. Therefore, yiiyage may be regarded as a kind of pro-prepositional in its function.

(1) By the base rule, yiiyage, a lexical item, is introduced into the terminal string of the deep structure, as with all other lexical formatives. Observe the examples in E 196.

E 196 (a) Ye sa ma [yiiyage]$_{PrepP}$
ashamed
'She was ashamed of it.'

(b) Ye mele se miselipixi là be buu doxo là ye kkela
exist epidemic which come and which strong

là be ciil mele sulu xaree faay-wo raxe [mè
and which still three or four year from

yiiyage]$_{PrepP}$
it, there

'There would be a fatal epidemic which was supposed to come in three or four years thereafter.'

(c) Yeliwici kawee re repiya xaamas yilaa re tay capara
child dm *wise very* fm *believe*

[yiiyage]$_{PrepP}$

'The children who are very intelligent do not believe it.'

(d) Medaa melee xo sa sèrè logo [yiiyage]$_{PrepP}$
what fm *say* dr *there*
'What did you say in it?'

(2) *TR* introduction of yiiyage is effected by two different processes: Focus T and Embedded Sentence T (for details, see *TRs 11-13*).

(i) The focus T, in which a focussed NP dominated by PrepP is copied in the sentence initial position, provides a condition in which the NP under PrepP should be replaced by yiiyage. Any prepositional element (Prp, Vpr, or pseudo-prepositional) which has preceded the focussed NP under PrepP is dropped except for Prp mè. Compare the following pairs.

E 197 (a) Emp + Re paaleglege yaramata$_{NPs}$ [yiree-yire re-Losiyop]$_{PrepP}$
big people

[mè yiṁòò-li faluya kaa tèèt]$_{PrepP}$
more-than island dm *some*

==> Re-Losiyop yilaa re paaleglege yaramata
fm

[yiiyage]$_{PrepP}$ [mè yiṁòò-li faluya kaa tèèt]$_{PrepP}$

'As for the Losiyop people, people are very big compared to some other islands.'

(b) Emp + Xo sa cuwayi-ya babiyoro lee [faa-li ṁo-faa]$_{PrepP}$?
buy under age, era, time which

==> Faa-li ṁo-faa melee xo sa cuwayi-ya babiyoro lee
fm

[yiiyage]$_{PrepP}$

'During what period of time did you buy this book?'

(c) Emp + Yi subu [mė yixaa]$_{PrepP}$
born

==> Yixaa melee yi subu [mė yiiyage]$_{PrepP}$
fm

'I was born here.'

By dropping the prepositional elements (e.g. bo and gali) except for mė, it occasionally happens that different deep structure sentences are realised as merged ambiguously on the surface. The pair below illustrates this.

E 198 Q + Emp + Xa si be kòòkomo { [bo medaa]$_{PrepP}$ / [gali medaa]$_{PrepP}$ }
we (incl) Pm *play* *for what* / *with what*

==> Medaa melee xa si be kòòkomo [yiiyage]$_{PrepP}$?
fm

(a) *'Why shall we play around?'*

(b) *'With what shall we play around?'*

(ii) The embedded sentence T also introduces anaphoric yiiyage. That is, if the antecedent in a matrix sentence is identical with the NP dominated by PrepP in the embedded sentence, the latter is replaced by yiiyage (if mė precedes the NP, then by mė yiiyage). Examine E 199.

E 199 (a) Yi be sėrė logo leboso [lå yi be mele [yiiyage]$_{PrepP}$]$_S$
say *place*

'I will tell the place where I will be staying.'

(b) Lefeecixi wee ye xayeda-ya se-wo xawaxa [yiree-li
girl *carry* *c-nut shell*

ppiya]$_{PrepP}$ [mė Xėrxėreg]$_{PrepP}$ [lå ye subu [mė yiiyage]$_{PrepP}$]$_S$
sand

'The girl carried a coconut shell filled with sand from Xerxereg where she had been born.'

4.7.10. PrepP *WITH IDENTIFICATION*

Prepositional phrases occur more often with Predication sentences, but they also appear with the Identification type. This is one of the reasons that PrepP was separated from the rest of S at a high level.

For more examples, see E 98.

E 200 (a) [Yaa-mu /xeel/]$_{NP}$ [yifaa]$_{NP}$ [mė yiiyage]$_{PrepP}$?
yours NP *which*
'Which is yours from them?'

(b) [Yifaa]$_{NP}$ [saga-la]$_{NP}$ [la-li dipa-mu]$_{PrepP}$?
status-its
'What's your feeling?'
(lit. *what-is its-status in your-feeling?*)

(c) [Faa-male]$_{NP}$ [lawu-li Coon]$_{NP}$ [mė yiree-li melwee
four *child* *from* *what*
rii-la we ye sa mese]$_{PrepP}$
spouse who
'John had four children by his wife that died.'

(d) [Yifaa]$_{NP}$ [saga-li sėpele]$_{NP}$ [yiiyage]$_{PrepP}$?
method
'What is the way of spelling it?'

(e) [Gaag]$_{NP}$ [senseye]$_{NP}$ [bo yixili-yVre yeliwici]$_{PrepP}$
for *children*
'I am a teacher for the children.'

(f) [Yiir]$_{NP}$ [tėxtaa]$_{NP}$ [yiree-li supiital lee]$_{PrepP}$
'They are the doctors at this hospital.'

(g) [Yiiyee]$_{NP}$ melee [yalapa-li xammayu]$_{NP}$ [gali-xica /xiic/]$_{PrepP}$
this, here fm *way* *good, love, peace* *to us(incl)*
[mė yiree-li makaa faluya-ca /xiic/]$_{PrepP}$
from *those island*
'This is the path to peace for us in our islands.'

4.8. NOUN PHRASES

4.8.1. *CONSTITUENT STRUCTURE*

BR 15 $NP \longrightarrow NP \begin{pmatrix} con\ NP \\ COM \end{pmatrix}$

BR 16 $NP \longrightarrow (Mn)\ NM$

BR 17 $NM \longrightarrow Nm\ (Dm)\ (Dr)\ (Int)$

BR 18 $Nm \longrightarrow \begin{Bmatrix} N \\ NUC \\ S \end{Bmatrix}\ (ATT)$

BR 19 ATT ⟶ At^NP

BR 20 NUC ⟶ (Rpt) {NuCm / Qnt}

BR 21 NuCm ⟶ (Ord) Nus {Nucl / Num}

LEXICON

gė	*'and'*	+con, [+ //__//]
mė	*'and'*	+con, [- //__//], [+NP__NP]
xaree	*'or'*	+con
te	*'not'*	+Mn
ciil	*'still'*	+Mn
wa (M:wol)	*'again, also'*	+Mn
ṁooc	*'just'*	+Mn
wol	*'most'*	+Mn
xal	*'only'*	+Mn
rool	*'altogether'*	+Mn
faa	*'which?'*	+Dm, +Q, +SG
kafaa	*'which?'*	+Dm, +Q, -SG
lee	*'this?'*	+Dm, -Q, +SG, {-future, -past / +SP}
kaa	*'these'*	+Dm, -Q, -SG, {-future, -past / +SP}
laa	*'that'*	+Dm, -Q, +SG, {+future, +past / +HR}
kalaa	*'those'*	+Dm, -Q, -SG, {+future, +past / +HR}
laay	*'that'*	+Dm, -Q, +SG, {+future, -past / -SP, -HR, +visible}
kalaay	*'those'*	+Dm, -Q, -SG, {+future, -past / -SP, -HR, +visible}
wee	*'that'*	+Dm, -Q, +SG, {-future, +past / -SP, -HR, -visible}
kawee	*'those'*	+Dm, -Q, -SG, {-future, +past / -SP, -HR, -visible}
doxo	*'so far'*	+Dr
loxo	*'completely'*	+Dr
diye	*'westward'*	+Dr
daxe	*'eastward, very'*	+Dr
weya	*'out'*	+Dr
logo	*'inward'*	+Dr
cox	*'just'*	+Int
ṁo	*'even'*	+Int

xaamas	*'quite a'*	+Int
yi	*'my'*	+At, +Pro, +SP, +SG
mu	*'your'*	+At, +Pro, +HR, +SG
la	*'his, her, its'*	+At, +Pro, -SP, -HR, +SG
li	*'of'*	+At, -Pro, +SG
ca	*'our(incl)'*	+At, +Pro, +SP, +HR
mami	*'our(excl)'*	+At, +SP, -HR, -SG
miyi	*'your(pl)'*	+At, -SP, +HR, +SG
yire	*'their'*	+At, -SP, -HR, -SG
tèèt	*'some'*	+Qnt
suxufed	*'a little'*	+Qnt
sibis	*'a few, some'*	+Qnt
ka	*'by (as in TWO BY TWO)'; 'each'*	+Rpt
xa	(ordinaliser)	+Ord, co-occurs with ATT
feda	*'how many, a few'*	+Nus, +Q
se	*'one;*	+Nus
ruwè	*'two'*	+Nus
sulu	*'three'*	+Nus
faay	*'four'*	+Nus
lima	*'five'*	+Nus
wòle	*'six'*	+Nus
fisu	*'seven'*	+Nus
walu	*'eight'*	+Nus
diwa	*'nine'*	+Nus
yexe	*'multiple of ten'*	+Num
buxuya	*'multiple of hundred'*	+Num
garase	*'multiple of thousand'*	+Num
sele	*'multiple of ten thousand'*	+Num
ppiya	*'multiple of hundred thousand'*	+Num
bogo	*'night'*	+Nucl
bòòdu	*'nose'*	+Nucl
cayè	*'leaf-like object'*	+Nucl
depi	*'flat piece'*	+Nucl
face	*'trunk, stem (tree)'*	+Nucl
fase	*'rounded object'*	+Nucl
fòco	*'bundles of breadfruit on a stick'*	+Nucl

gafa	*'fathom (two arm length)'*	+Nucl
gate	*'hole'*	+Nucl
gȯlo	*'bundle of ten'*	+Nucl
madepi	*'torn piece'*	+Nucl
male	*'animate object'*	+Nucl
male	*'about ½ inch, finger length'*	+Nucl
mata	*'kind'*	+Nucl
ṁṁulu	*'short piece of rope or string'*	+Nucl
ṁalo	*'length from elbow to finger-tips'*	+Nucl
ṁucu	*'faggot'*	+Nucl
paa	*'lei-like object'*	+Nucl
paca	*'tail, foot'*	+Nucl
pade	*'speech'*	+Nucl
pexe	*'side, fillet'*	+Nucl
pėgė	*'home-made cigarette'*	+Nucl
pėyė	*'drop'*	+Nucl
pȧwWu	*'arm length'*	+Nucl
puluxu	*'school of fish, herd'*	+Nucl
raa	*'branch'*	+Nucl
rale	*'day'*	+Nucl
ree	*'side'*	+Nucl
tabo	*'half piece'*	+Nucl
tale	*'length of rope'*	+Nucl
tapa	*'cheek'*	+Nucl
tare	*'age group, generation'*	+Nucl
ttaxe	*'slice'*	+Nucl
womu	*'bundle'*	+Nucl
wo	*'general object'*	+Nucl, may be dropped in [se__] *1*
xaddu	*'finger'*	+Nucl
xaye	*'tree stem, book'*	+Nucl
xumu	*'mouthful of water, beer, or other liquid'*	+Nucl
xupu	*'broken piece'*	+Nucl
yafe	*'bundle of round objects'*	+Nucl
yage	*'span between tumb and forefinger'*	+Nucl
yale	*'butt or line-like object'*	+Nucl
yaye	*'long-slender object'*	+Nucl
gaag	*'I'*	+N, +Pro, +SP, +SG

xeel	*'you'*	+N, +Pro, +HR, +SG
yiiy	*'he, she, it'*	+N, +Pro, -SP, -HR, +SG, ±Ani
xiic	*'we(incl)'*	+N, +Pro, +SP, +HR
xa	*'we(incl)'*	+N, +Pro, +SP, +HR, [+__si]$_{Pm}$
xaamami	*'we(excl)'*	+N, +Pro, +SP, -HR, -SG
xaamiyi	*'you(pl)'*	+N, +Pro, -SP, +HR, -SG
yiir	*'they'*	+N, +Pro, -SP, -HR, -SG, ±Ani
melee	*'this'*	+N, +Dm
makaa	*'these'*	+N, +Dm
malaa	*'that'*	+N, +Dm
makalaa	*'those'*	+N, +Dm
malaay	*'that (yonder)'*	+N, +Dm
makalaay	*'those (yonder)'*	+N, +Dm
melwee	*'that (past, unseen)'*	+N, +Dm
makawee	*'those (past, unseen)'*	+N, +Dm
yiiyee	*'this'*	+N, +Dm
yikaa	*'these'*	+N, +Dm
yilaa	*'that'*	+N, +Dm
yikalaa	*'those'*	+N, +Dm
yilaay	*'that over there'*	+N, +Dm
yikalaay	*'those over there'*	+N, +Dm
yiwee	*'that (unseen)'*	+N, +Dm
yikawee	*'those (unseen)'*	+N, +Dm
medaa	*'what'*	+N, +Q, -Ani
yiitey	*'who'*	+N, +Q, +Ani
yifaa	*'which, what, where'*	+N, +Dm
yikafaa	*'which, what, where (pl)'*	+N, +Dm
yiiyaa	*'where'*	+N, +Q, +loc, [+[__]PrepP]
yigȧd	*'when'*	+N, +Q, +time, [+[__]PrepP]
boxata	*'home'*	+N, +Cl
calu	*'water source'*	+N, +Cl
cuwu	*'ring'*	+N, +Cl
dėėgėcė	*'uninhabited island'*	+N, +Cl
fala	*'men's house'*	+N, +Cl
faluya	*'island'*	+N, +Cl
fiyaye-	*'wrung object'*	+N, +Cl
gudė-	*'chewing object'*	+N, +Cl
lawu-	*'child, property intimately associated with person'*	+N, +Cl

laxe-	*'bracelet'*	+N, +Cl
lema-	*'drinking or smoking object'*	+N, +Cl
libe	*'grave'*	+N, +Cl
liliya-	*'place'*	+N, +Cl
magaaxu	*'clothes'*	+N, +Cl
mare	*'lei, encircling object'*	+N, +Cl
paa-	*'bait'*	+N, +Cl
sila-	*'honorific female, mother'*	+N, +Cl
soxo	*'long-slender object'*	+N, +Cl
tama-	*'father, honorific male'*	+N, +Cl
waa	*'vehicle'*	+N, +Cl
xala-	*'cooked food'*	+N, +Cl
xapale-	*'loin-cloth'*	+N, +Cl
xatama	*'door'*	+N, +Cl
xiya-	*'mat, object for sleeping'*	+N, +Cl
xocaa	*'food to be eaten raw'*	+N, +Cl
xolo-	*'caught object'*	+N, +Cl
xota-	*'covering object'*	+N, +Cl
yaa-	*'general object'*	+N, +Cl

4.8.2. *INTRODUCTION*

As noticed thus far, NP is the category which appears most frequently in base rules. Accordingly the grammatical relations it manifests are varied: the subject of a sentence (*BR 5* and *BR 6*), the predicate of an identification sentence (*BR 6*), the direct object (*BR 9*) and the indirect object (*BR 10*) of the main verb, the main verb itself (*BR 9*) and the head constituent of a prepositional phrase (*BR 13* and *BR 14*). The following examples are given as a recapitulation of the said grammatical relations.

E 201 (a) subject of a predication S

(a1) Dempoo lee ye sèrè bo re buu doxo.
dm *say that come* dr
'This dispatch says that they will come.'

(a2) Ye xasi-ya tèèt pèraase mada.
carry some rice cooked
'He took some cooked rice.'

(a3) Ye towee yoxo là yi be fèèru-ya yegaage wee.
ng *possible that do work* dm
'I will not do the work again.'

(a4) Ye mele sulu-male paabiya mė diwa-male malėxė
stay 3 Nucl *pig* *and 9* *chicken*
lå lawu-mami.
that Cl"*child*"-*our(excl)*
'We have three pigs and nine chickens at home.'

(b) object of a predication S

(b1) Dabe-ya ṁiri-yire /yiir/.
follow *rear*
'Follow them!'

(b2) Medaa melee senseye laay ye sėrė?
what fm *say*
'What does the teacher over there say?'

(b3) Re sa yaali-ya se-wo xabolbolo teffoya.
own *one* *lamp* *new*
'They had a new lamp.'

(b4) Se-male paaxowo ye sa lli-ya se-male ṁale lå yida-la Coon.
shark *kill* *man who name-his*
'A shark has killed a man whose name is John.'

(c) indirect object

Ye galle-ya se-male paabiya se-wo màyi.
give *pig* *breadfruit*
'He gave a pig a breadfruit.'

(d) subject and predicate of an identification S

(d1) Bisi-li yiitey makalaay?$_{sub}$
brother who prd *those*
'Whose brothers are those over there?'

(d2) Waa-yi /gaag/$_{prd}$ boto wee$_{sub}$
Cl*(vehicle)*
'The boat is mine.'

(d3) Xiya-li lefeecixi laay cobo$_{prd}$ melee$_{sub}$
Cl*(mat) girl* *mat* *this*
'This is that girl's mat.'

(e) main verb

(e1) Ye sa yiṁa-mu /xeel/ yiṁa mommaye wee?
house-your *good*
'Was that good house yours?'

(e2) Ye be yifaa lapa-yire tarṁale kalaa yicuu-li baarkoo?
which bigness boy on ship
'How many boys will there be on the ship?'

(f) head of a prepositional phrase

(f1) Re kòòkomo la-li molalulu lå ye mmade.
play in river that shallow
'They are playing in the shallow river.'

(f2) Faga gali-yeyi /gaag/ tèèt cale bo lema-yi /gaag/
give to me some water as Cl*(drink)-my*
'Give me some water to drink!'

The internal structure of noun phrases is also varied, but a significant simplification has been achieved by the decision that all appositive constructions such as a classifier versus a member noun, a demonstrative versus the following noun, etc. be treated as identification sentences.

There is one similarity between the structure of the noun phrase and that of the verb phrase, i.e. the lexical formatives of Mn (nominal manner particles), Dr and Int are also shared by verb phrases except perhaps for Mn wol *'most'*. One formative of Mn, te *'not'*, was dominated by TA and the rest of Mn by Mv under Verb Phrases (4.6.). Te was treated as a TA particle on the assumption that it is the negative counterpart of a tense-aspect particle which is realised as zero (see E 70). In noun phrases, however, tense-aspect is not relevant and te is the negation of the following noun or noun phrase, thus being included in Mn along with other preposed nominal particles. Some members of Mv, e.g. ma (habituative), and xa *'normally'*, as well as of Int, e.g. xamay *'well'* do not appear in NP.

Such classes of nouns as personal pronouns, demonstratives, and question words are treated as subsets of N with respective feature specifications. This is to provide the base component with greater generality and simplicity. There are other syntactic reasons to distinguish them from nouns proper at the feature level rather than at that of categories, as will be observed later.

4.8.3. *COORDINATE NOUN PHRASES*

BR 15 allows an optional recursive expansion of NP. The connectors (con) gè and xaree are also used to connect Ss as noted in *BR 1*. Mè *'and'* is a conjunctive with the exclusive purpose of connecting two NPs. Gè and mè are in complementary distribution, since the first occurs between junctures while the second does not, i.e. whenever gè is used a

juncture precedes and follows.

If all coordinate noun phrases were derivable from well-formed coordinate sentences generated by BR *1* and the following rules by way of conjunction reduction transformations, BR *15* would not be required. This has turned out not to be the case, however. The examples of some problematic sentences follow.

E 202 (a) Yaramata laay mė yeliwici-li sukuun lee re bisbisi.
person dm *child* dm *brothers*
'That man and this student are brothers.'

(b) Raxe-li Ben ye mele lepada-li raxe-li Tom mė raxe-yi /gaag/.
age
'Ben's age is between Tom's and mine.'

(c) Xa xafedėxė cox mė yiiy.
same
'He and I are the same.'

(d) Ye tay mommaye dipa-li Yoglab bo re sa memmele
ng *good feeling because staying*
se-wo mė re-Metag kawee.
together
'Yonglab didn't feel good because he and the people from Metang had to leave together.'

(e) Ṁale laa gė feefele laa re be rool buu doxo.
man woman both,al- come together
'The man and the woman both came.'

(f) Xa yegaage fagali mė yaramata laa.
we work together
(Pm)
'I and the man work together.'

(g) Yulidiy yilaa malboo sulu-yexe xaree medaa faluya pääcixcixi.
fm *perhaps 30 or what island small*
'Ulithi consists of thirty or so small islets.'

The above examples constitute the evidence against the hypothesis that all coordinate NPs may be derived from the corresponding coordinate sentences. (a) to (f) contain each a lexical item which co-occurs only with an NP which has <-SG>. Thus, the verb bisbisi *'to be in brother relation'* needs a subject or subjects with <-SG>; lepada- *'between'* requires an attributive NP with <-SG>; xafedėxė *'same'*, se-wo *'together'*, rool *'both, altogether'*, etc. require a subject or subjects with <-SG>.

If the sentences in (a) to (f) are to be interpreted as derived from the respective coordinate sentences, the Ss on both sides of a connector in each sentence would be all ungrammatical. For example, (a) would be derived from

E 203 *[yaramata laay ye bisbisi]$_S$ [gė]$_{con}$ *[yeliwici-li sukuun lee ye bisbisi]$_S$

which violates the co-occurrence restriction indicated above. This difficulty has led to the incorporation of *BR 15* in the base, by which NP sequences with <-SG> may directly be generated so that no problem will arise in terms of selectional restrictions. The same is applicable to E 202 (g) in which xaree *'or'* is the connector. If this sentence is hypothesised as derived from the underlying coordinate sentences, the first S would be grammatical but the second would not.

E 204 [Yulidiy yilaa malboo sulu-yexe faluya pàácixcixi]$_S$ [xaree]$_{con}$ *[Yulidiy yilaa malboo medaa faluya pàácixcixi]$_S$

This difficulty will be solved by generating sulu-yexe xaree medaa from *BR 15* since both sulu-yexe and medaa are NPs.

There are some other examples which need brief attention. Examine the following.

E 205 (a) Re ma xacuya-ya xala-li ṁale wee ṁe yiree-li se-wo
hb *take* *food* *man* *from at*

ṁe se-wo wolo.
turtle

'They would take the man's food from every turtle.'

(b) Se-male ṁe se-male yilaa re paaleglege.
fm *big*

'Everybody was very big.'

(c) Se-wo fiit yilaa se-yexe ṁe ruwė-wo yinci.
10 *2*

'One foot is twelve inches.'

(d) Gaag mė yiiy xa xasi-ya sulu-male.
'He and I carried three (animals).'

The above sentences contain numerative compounds. In (a) and (b), se-wo mė se-wo and se-male mė se-male may be introduced neither by a conjunction reduction T nor by *BR 15*, since the meaning of each phrase, i.e. *'every'*, is not the same as the sum of its constituents, i.e. *'two'*. It is suggested that se-Nucl$_1$ mė se-Nucl$_1$ be treated as a unit (idiom) with the meaning *'every'*. In E 205 (c), the sentence is not to be

interpreted as derived from se-wo fiit yilaa se-yexe yinci gė se-wo fiit yilaa ruwė-wo yinci which is grammatical but logically inconsistent. As will be seen under Numerative Compounds, se-yexe mė ruwė in this case is viewed as generated by *BR 15*. E 205 (d) can be derived both from the base and by transformation. In the latter case, the underlying sentence is gaag melee yi xasi-ya sulu-male gė yiiy melee ye xasi-ya sulu-male. Here the two words sulu-male are to be considered as having "identical reference" (Jacobs and Rosenbaum 1968:257), so that the reduced sentence contains sulu-male and not wȯle-male *'six (animate)'* which may be correct logically but not grammatically. Deletion of an item in grammar presupposes the condition of identical reference. The difference between the identity condition in grammar and the logical equivalence may be observed rather clearly in the following example.

E 206 Yi xasi-ya sulu-male gė ye xasi-ya sulu-male.
'I carried three and he carried three.'

	(when two sulu-male are of identical reference)	(when two sulu-male are of non-identical reference)
logic.	Xa xasi-ya sulu-male. *'We carried three.'*	Xa xasi-ya wȯle-male. *'We carried six.'*
gramm.	Xa xasi-ya sulu-male.	(blocked)

As a result of the postulation of *BR 15*, a great number of sentences have double sources, i.e. *BR 15* on the one hand and *BR 1* and conjunction reduction T on the other. There are certain ordering requirements between both terms of a connector (*TR 20*). For example, nouns with <+Pro> precede those with <-Pro>, but there is no inherent ordering between nouns with the same high level syntactic features.

E 207 (a) Gaag mė Coon melee xa sa loxo.
fm Pm *go*
but: *Coon mė gaag melee xa sa loxo.
'John and I went.'

(b) Yaa-mami gaag mė Coon babiyoro melee.
Cl(gen.)
but: *Yaa-mami Coon mė gaag babiyoro melee.
'This is John's and my book.'

(c) Gaag mė yiiy melee xa sa kȯȯkomo.
Yiiy mė gaag fm *play*
'He and I played around.'

(d) Se-male yelusu xaree medaa yiiy yaramata wee.
ghost or what, something person

but: *Medaa xaree se-male yelusu yiiy yaramata wee.

'That person is a ghost or something.'

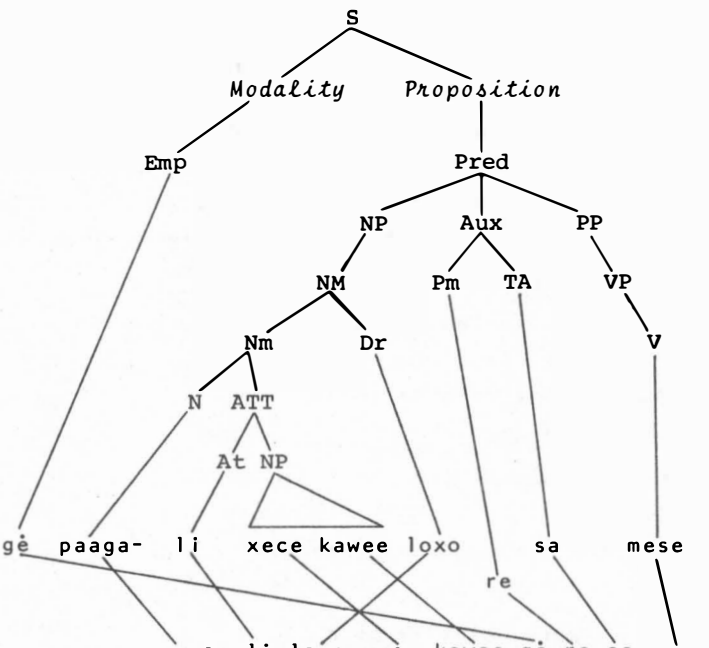
For the deletion of pronouns in coordinate relation, see *TR 21*.

4.8.4. *NOMINAL PARTICLES*

4.8.4.1. Nominal particles are grouped under prenominal **Mn** and post nominals **Dr** and **Int**. **Mn** is placed one level higher than **Dr** and **Int** for the reason that the former has wider syntactic and semantic coverage than the latter. That is, **Mn** is related to **NM** as a whole, while **Dr** and **Int** are limited in their relation to the head noun (**N**, **NumC** or **S** in *BR 18*). If an attributive construction (**ATT**) follows the head noun, **Dr** or **Int** is obligatorily placed between the head noun followed by **At** (*BR 19*) and the **NP** dominated by **ATT** (*TR 33*). Compare the following deep and surface forms of the sentence in E 208.

E 208 Paaga-li loxo xece kawee gė re sa mese.
all Dr *rat* dm fm *die*
'All those rats died.'

deep:



surface: paaga- li loxo xece kawee gė re sa mese

In spite of the obligatory switch, Dr and Int cannot be placed under the domination of ATT, i.e. between At and NP, in view of the facts that (1) there is a close syntactic tie between At and its obligatorily co-occurring NP, and (2) Dr or Int follows Dm (demonstrative enclitic) which in turn obligatorily follows ATT on the surface.

4.8.4.2. The prenominal particles so far found are te *'not'*, ciil *'still'*, wa (Mogmog: wol) *'also, again'*, ṁooc *'just'*, wol *'most'*, xal *'only'*, and rool *'altogether'*.

E 209 te

(a) $[[\text{Te}]_{\text{Mn}}$ [yado-li fadė-li pėraase$]_{\text{NM}}]_{\text{NP}}$ [melee$]_{\text{NP}}$
time *planting rice* *this*
'This is not the time for planting rice.'

(b) $[[[\text{Te}]_{\text{Mn}}$ [gaag$]_{\text{NM}}]_{\text{NP}}$ [Pool$]_{\text{NP}}]_{\text{S}}$ bo gaag Tom.
because
'I am not Paul but Tom.'

(c) $[\text{Coon}]_{\text{NP}}$ yilaa $[[\text{te}]_{\text{Mn}}$ [se-male tėxtaa$]_{\text{NM}}]_{\text{NP}}$
fm
'John is not a doctor.'

(d) $[\text{te}]_{\text{Mn}}$ [paaga-li fedėxė$]_{\text{NM}}$ gė ye mommaye.
all *meat* fm *good*
'Not all meat is good.'

(e) Yiiy melee ye sa lli-ya /yiiy/, xaree $[[\text{te}]_{\text{Mn}}$ [yiiy$]_{\text{NM}}]_{\text{NP}}$?
fm *kill* *or*
'He is the one who killed it, isn't he?'

E 210 ciil

$[[\text{Ciil}]_{\text{Mn}}$ [yiitey$]_{\text{NM}}]_{\text{NP}}$ melee ye sa mese?
fm
'Who else died?'

E 211 wa

(a) $[\text{Wa}]_{\text{Mn}}$ $[\text{Coon}]_{\text{NM}}$ melee ye be buu doxo.
'John also will come.'

(b) $[\text{Wa}]_{\text{Mn}}$ [sulu-male$]_{\text{NM}}$
'three more'

E 212 ṁooc

$[\text{Ṁooc}]_{\text{Mn}}$ [yixalaa$]_{\text{NM}}$ melee yi be le loxo.
'I will go just now.'

E 213 wol *'most'* occurs commonly with <+animate> noun, in particular, when this noun is followed by an ATT construction. Frequently, wol is preceded by another Mn wool *'altogether'* in which case a <-animate> noun may freely co-occur.

(a) Re kåkååta-faa makawee [[wol]$_{Mn}$ [bisi-mu /xeel/]$_{NM}$]$_{NP}$
doing which those
'What are most of those your brothers doing?'

(b) [[Wol]$_{Mn}$ [bisi-yi /gaag/]$_{NM}$]$_{NP}$ [re-còò kaa]$_{NP}$
'They are mostly my brothers.'

(c) [[Wol]$_{Mn}$ [lawu-yi /gaag/]$_{NM}$]$_{NP}$ [wolo]$_{NP}$ [makaa]$_{NP}$?
Cl *(child)* *turtle*
'Are these mostly my turtles?'

(d) [[Rool]$_{Mn}$ [wol]$_{Mn}$ [xala-mu /xeel/]$_{NM}$]$_{NP}$ [mogoyo kaa]$_{NP}$?
Cl *(food)* *food*
'Are those food stuffs almost all yours?'

E 214 xal

(a) Yi dipali-ya yi be mogoyo [[xal]$_{Mn}$ [suxufed]$_{NM}$]$_{NP}$
want eat a little
'I want to eat only a little.'

(b) [[Xal]$_{Mn}$ [yiir cox]$_{NM}$]$_{NP}$ melee re sa tagi.
cry
'Only they cried.'

E 215 rool

(a) [[Rool]$_{Mn}$ [bisi-mu]$_{NM}$]$_{NP}$ [makalaay]$_{NP}$?
'Are those people over there all your brothers?'

(b) [[Rool]$_{Mn}$ [lawu-mu /xeel/]$_{NM}$]$_{NP}$ [malèxè-kaa diwa-male]$_{NP}$
chicken dm *9*
'Those nine chickens are all yours.'

(c) [Rool]$_{Mn}$ [xiic]$_{NM}$ si sa loxo.
'Let's all of us go!'

(d) Yiir [[rool]$_{Mn}$ [yaramata]$_{NM}$]$_{NP}$
'They are all human beings.'

Rool most often occurs with an NP that denotes more than two objects.

4.8.4.3. Post nominal particles (+Dr and +Int) have the same meanings as when they are used as verbal particles. Examples follow.

E 216 Dr

(a) Yiwee [rale]$_{Nm}$ [kawee]$_{Dm}$ [doxo]$_{Dr}$ [we ye kamudiidiya
then, and *day* *thus-far* *pretty*

yaa-la /yiiy/ sa mele]$_{COM}$ gė yixalaa ye
her *and now*

ttarage yiree-la /yiiy/.
ugly *for-her*

'And former days she was pretty but now she is ugly.'

(b) Yulidiy yilaa se moda-li faluya tottolo pääcixcixi
fm *one group* *island low* *small*

lagace-li yikuwerėė [mė [tabo]$_{N}$ [li]$_{At}$ [diye]$_{Dr}$ [Pasifik]$_{NP}$]$_{PrepP}$
side *at* *end* *west*

[mė tabo laa meldowa]$_{PrepP}$
west

'Ulithi is a group of very small low islets near the equator in the western part of the Pacific.'

(c) Yilaa malaa [xarėta-[li]$_{At}$ [[faluya]$_{Nm}$ [loxo]$_{Dr}$]$_{NP}$]$_{NM}$ [mė
that *that* *end* *island*

yifaga-li loxo Caroline Island]$_{PrepP}$
north

'It is the northern-most island of the Caroline Islands.'

(d) Xarėta-[li]$_{At}$ [daxe]$_{Dr}$ [pallege]$_{NP}$ yixi wee re sa dorofi-ya
end *big* *fish* dm *catch*

mė wòò-li Yap.
on

'The fish they caught on Yap was really big.'

E 217 Int

(a) [[[Yilaa]$_{Nm}$ [cox]$_{Int}$]$_{NM}$]$_{NP}$ [lapa-la /yiiy/]$_{NP}$
that *bigness-its*

'That's all.'

(b) [[[Yiiy]$_{Nm}$ [cox]$_{Int}$]$_{NM}$]$_{NP}$ [yaa-la /yiiy/ fisexi-ya /yiiy/]$_{NP}$
he Cl(gen) *burn*

'He burnt himself.'

(c) Yiwee gė Lodow mė Yasor yilaa malboo be
and *perhaps*

[[[[ka sulu-yexe]$_{NUC}$]$_{Nm}$ [cox]$_{Int}$]$_{NM}$]$_{NP}$ [yaramata]$_{NP}$
each 30 *person*

[yiiyage]$_{PrepP}$
there

'And perhaps there are about thirty people living on each of Lodow and Yasor.'

(d) [Dėėlapa]$_{N}$-[li]$_{At}$ [cox]$_{Int}$ [yiṁa]$_{NP}$ yilaa ye towase.
most fm *destroyed*
'Most of the houses were destroyed.'

(e) [Se-male]$_{Nm}$ [ṁo]$_{Int}$ gė tay malawa.
one fm ng *alive*
'No one survived.'

(f) [[Medaa]$_{Nm}$ [ṁo]$_{Int}$]$_{NM}$ xo be le wa fėėru-ya?
what *also do*
'What are you also going to do?'

(g) [[Yixalaa]$_{Nm}$ [ṁo]$_{Int}$]$_{NM}$ gė ciil mele yiiy fase laa.
now *still stay* *stone* dm
'Even now, there still is that stone.'

(h) Xo ciil [[yeliwici]$_{Nm}$ [xaamas]$_{Int}$]$_{NP}$
still
'You are still young.'

E 218 Dr + Int
[Yiiy]$_{Nm}$ [loxo]$_{Dr}$ [cox]$_{Int}$ [yaa-la /yiiy/ memmele]$_{NP}$
Cl(gen) *staying*
'She lived entirely alone.'

4.8.5. *DEMONSTRATIVE ENCLITICS* (+Dm)

Dm diverges from the rest of NP at a rather high level (*BR 17*) for two reasons. In the first place, an optional attributive construction (ATT) never follows Dm but precedes it. Observe the following.

E 219 (a) Xa dėdėrė xapala-li melee lawu-[li] [lulapa-$_{N}$[li]$_{At}$
weave clothes that child At *king*

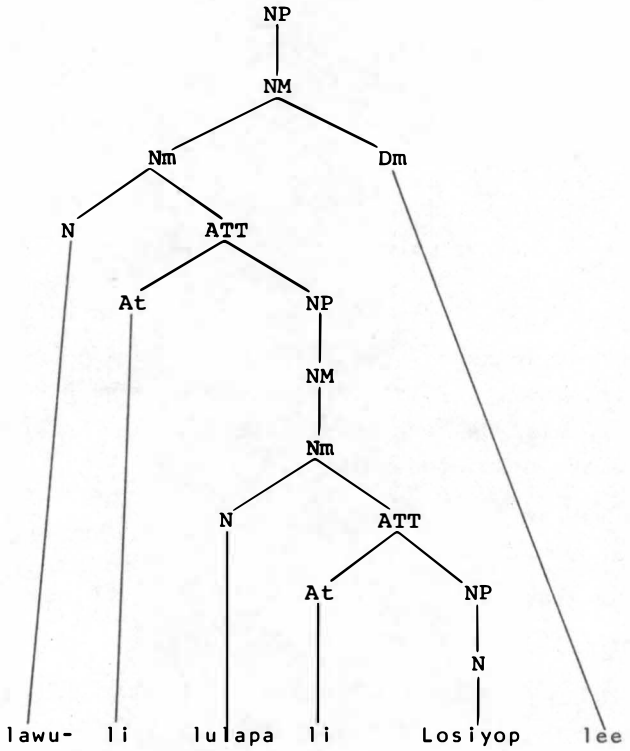
Losiyop]$_{NP}$ [lee]$_{Dm}$
'You(pl)! Weave the clothes of this son of the king of Losiyop!'

(b) Re sa tafaale doxo [cȯȯ]$_{N}$-[li]$_{At}$ [fedexe]$_{NP}$ [kawee]$_{Dm}$
come-back *people*

'Those soldiers came back.'

Thus, the noun phrase lawu-li lulapa-li Losiyop lee in E 219 (a) has the following deep structure.

E 220



'this son of the king of Losiyop'

Secondly, the loose relation between N and the related Dm may be observed in the structural change in adjectivisation transformations (*TRs 38* and *39*) in which a verb with +Adj precedes Dm. This loose relation is a supporting reason to separate Dm in an early rule. Examples follow.

E 221 (a) [Tarṁale]$_{Nm}$ rraye [kawee]$_{Dm}$ yilaa lawu-yi /gaag/
fm *child*

$$\begin{bmatrix} \textit{happy} \\ +V \\ +Adj \end{bmatrix}$$

'Those happy boys are mine.'

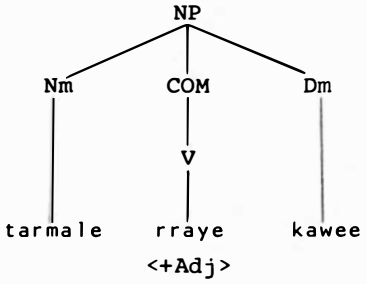
(b) [Pèraase]$_{Nm}$ mada [wee]$_{Dm}$ yiiyee
rice *this, here*

$$\begin{bmatrix} cooked \\ +V \\ +Adj \end{bmatrix}$$

'The cooked rice is here.'

Tarmale rraye kawee in E 221 (a) has the following surface P-marker.

E 222



Differing from Trukese (Dyen 1965:20-1), Dm does not occur after a "personal attributive suffix", i.e. after At + noun with +Pro in deep structures. As will be seen later, a demonstrative pronoun is usually placed before the head noun instead.

E 223 *tama-mu wee
father-your that

but: melwee tama-mu
'that father of yours'

Also differing from Dyen's Trukese (1965:21), no sequence of two or more Dms occurs within an NP. Dyen says: "... a compound with a demonstrative as the second stem can itself be followed by an enclitic demonstrative which is an attributive of the construct head". In Ulithian, demonstrative pronouns are widely used to block the repetition of demonstrative suffixes.

E 224 *còò-li fedexe wee laay
people fight dm dm

but: còò-li fedexe wee yikalaay

or: yikalaay còò-li fedexe wee
'those soldiers over there'

Dyen's own example *'the father of that girl'* turns out to be melwee tama-li feefele wee but not *tama-li feefele wee we. The Ulithian construction tama-li feefele wee we occurs only when some embedded sentence

follows. Thus **we**, like **lå** *'which, who, that'*, is viewed as a connector and not a demonstrative suffix (for this, see the discussion under **4.9.**).

Dm is of the structure (**ka**) + stem in which **ka** is the "plural" morpheme and the stem is a composite of temporal, deictic and question features. One deviant form is **kaa** *'these'* which occurs instead of **ka** + **lee**. In **4.7.7.** the members of **Dm** have been assigned temporal features to be relevant when they follow <+time> nouns. With <-time> **N**, demonstrative suffixes indicate deictic reference as in the following diagram of feature compositions.

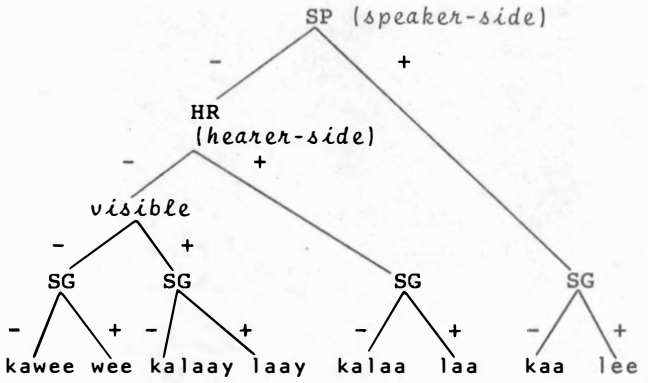


FIGURE 8

DEICTIC FEATURES OF DEMONSTRATIVE ENCLITICS

There are two other demonstrative enclitics which are positively marked with Q: **faa** *'which(sg)'* and **kafaa** *'which(pl)'*. These occur with nouns of both + and - time and all temporal and deictic features are neutralised in them. TABLE X (on page 217) shows all the features relevant to the differentiation of demonstrative enclitics.

TABLE X

FEATURES OF DEMONSTRATIVE ENCLITICS

	kaa	lee	kawee	wee	kalaay	laay	kalaa	laa	kafaa	faa
Q	-	-	-	-	-	-	-	-	+	+
temporal										
future	-	-	-	-	+	+	+	+	0	0
past	-	-	+	+	-	-	+	+	0	0
deictic										
SP	+	+	-	-	-	-	-	-	0	0
HR	(-)	(-)	-	-	-	-	+	+	0	0
visible	(+)	(+)	-	-	+	+	(+)	(+)	0	0
SG	-	+	-	+	-	+	-	+	-	+

redundancy rules: 1. <+SP> ⟶ {<-HR>, <+visible>}

2. <+HR> ⟶ <+visible>

Examples of the demonstrative suffixes are given below.

E 225 (a) Yado [faa]$_{Dm}$ melee ye sa mese?
time fm
'Which time (when) did he die?'

(b) [Yaa]$_{N}$-[li]$_{At}$ [[yaramata]$_{Nm}$ [faa]$_{Dm}$]$_{NP}$ [[babiyoro]$_{NM}$ [lee]$_{Dm}$ NP]$_{NP}$?
'Which person's book is this?'

(c) [[Tappe]$_{N}$-[li]$_{At}$ [[pese]$_{Nm}$ [kafaa]$_{Dm}$]$_{NP}$]$_{NP}$ [melee]$_{NP}$?
kind *dog*
'What kind of dog is this?'

(d) [Boxata]$_{Nm}$ [wee]$_{Dm}$ re weri-ya lalow yilaa boxata-yi /gaag/
village *see* *yesterday* fm
'The village they saw yesterday is mine.'

(e) [Yeliwici]$_{Nm}$ [kalaay]$_{Dm}$ yilaa lawu-yi /gaag/.
fm *child*
'The children over there are mine.'

4.8.6. *ATTRIBUTIVE CONSTRUCTIONS* (N ATT)

4.8.6.1. *BR 18* and *BR 19* define attributive constructions, which are of high frequency of occurrence in Ulithian texts. The reason for assigning At to the following NP (*BR 19*) rather than to the preceding element is

that the preceding element may occur without At as the head of the attributive construction while At and the following NP are interdependent, i.e. one cannot occur without the other.

BR 19 opens the way to recursive application of the rules, generating any length of phrases with right branching construction.

E 226 (a) Falalapa melee ye sa mele lå [se-wo]$_{NP}$ [faluya]$_{N}$
fm stay that one island

[-li]$_{At}$ [[[mommaye]$_{N}$-[li]$_{At}$ [[[yegaage]$_{N}$-[li]$_{At}$
good work

[mogoyo]$_{NP}$]$_{Nm}$]$_{NP}$]$_{Nm}$]$_{NP}$
food

'Falalap has always been a good island for farming.'

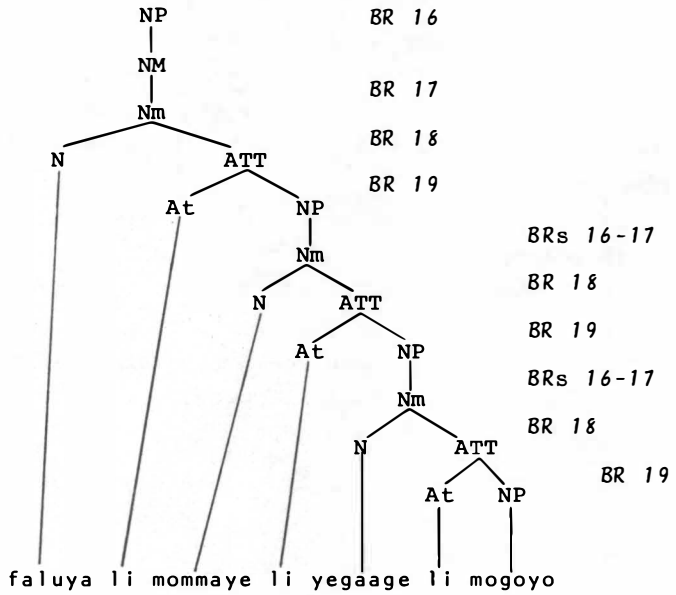
(b) Yiwee gė buraxo wee ye sa tegi-ya Magiyag lå ye
then smoke dm direct which

mele [meldowa-li yiyėro-li lamo-li Yulidiy]$_{PrepP}$
stay west south lagoon

'Then the smoke was directed to Mangiyang which is situated on the south-west of the Ulithi atoll.'

Faluya-li mommaye-li yegaage-li mogoyo in E 226 (a) (and also meldowa -li yiyėro-li lamo-li Yulidiy in E 226 (b)) are of the following right branching structure.

E 227



Not all words may be followed by **ATT** (attributive phrase). For example, pronouns (+N, +Pro) and question words (+N, +Q) cannot occur before **ATT** and therefore must be marked with [-__ATT] in their lexical entries (see *RR 6* in 4.14.). The occurrence of **N U C** or **S** before **ATT** will be discussed shortly. The recursive process permitted by *BR 19* will automatically be blocked when a lexical item dominated by **N** has the feature [-__ATT].

4.8.6.2. In this study, no separate deep structure nodes are given to the set of "possessive" suffixes (e.g. yi *'my'*, mu *'your'*) and to the "construct" suffix li *'of'*. Only the single node **At** is postulated in *BR 19*, though **At** is not a lexical category dominating the possessive suffixes and li. It has been decided that these suffixes are to be derived from the features of the following **NP** with which **At** is dominated by **ATT**. The following three processes are involved for this purpose.

(1) Feature copying, i.e. the constituent **At** will copy the features of the following **NP** (*TR 2*);

(2) Deletion of the **NP** dominated by **ATT** under certain conditionas if the **NP** dominates an **N** having the feature <+Pro> (*TR 21*);

(3) Realisation of the suffixes through a phonological process (*PR 14*).

There are several syntactic motivations for the proposed approach. First of all, the forms of "possessive" suffixes and the "construct" suffix are predictable given the features of the following **NP**. Thus the two sets are in complementary distribution except for occasional (optional) free variation between yire and li before an **NP** with a feature matrix containing <-Pro>, <-SG>, and <+Ani>, as will be seen in *TR 4* (e.g. yiṁa-yire pese kaa and yiṁa-li pese kaa *'these dogs' house'*). This fact supports not only the single mode (**At**) treatment but also the feature copying measure.

Secondly, such a treatment as Benton's substitution approach in Trukese (1968:87 and *passim*) does not fit for Ulithian because of some structural differences existing between the two languages. In Trukese, Benton points out that possessive suffixes (Tr) na, ri are the substitutes for attributive phrases and gives a rule of the form **Attr** ⟶ ni + **NP** (1968:87 and *passim*). In Ulithian, however, suffix yire + **NP** occurs very often, i.e. yire is not a substitute for li + **NP**.

E 228 waa-yire yaramata kalaa
'those people's canoe'
paaga-yire xece kawee
'all of those rats'
lagace-yire yeliwici kaa
'near these children'

Besides, consider the following series of attributive constructions.

E 229	N	At	NP(a)	NP(b)	
	yaa-	li	yeliwici (lee)	babiyoro	*'(this) boy's book'*
	yaa-	la	(*yiiy)	babiyoro	*'his book'*
	yaa-yire		yeliwici (kaa)	babiyoro	*'these boys' book'*
	yaa-yire		Coon ṁe Ben	babiyoro	*'John's and Ben's book'*
	yaa-yire		(yiir) ṁe Ben	babiyoro	*'Ben's and their book'*
	yaa-yire		(*yiir)	babiyoro	*'their book'*
	yaa-mami		(gaag) ṁe Ben	babiyoro	*'Ben's and my book'*
	yaa-mami		(*xaamami)	babiyoro	*'our(excl) book'*
	yaa-miyi		(xeel) ṁe Ben	babiyoro	*'Ben's and your book'*
	yaa-miyi		(*xaamiyi)	babiyoro	*'your(pl) book'*
	yaa-	ca	(gaag ṁe xeel) ṁe Ben	babiyoro	*'Ben's and our(incl) book'*
	yaa-	yi	(*gaag)	babiyoro	*'my book'*
	yaa-	mu	(*xeel)	babiyoro	*'your book'*

The occurrence of a noun phrase after yaa-mami, yaa-miyi, etc. presents a further counter example to the substitution approach. On the other hand, if, as already proposed elsewhere in this study, the starred pronouns in E 229 are postulated in deep structures in spite of their non-appearance on the surface, then first of all all the holes under **NP**(a) are filled (which contributes to a greater symmetry of the structure) and secondly **At** and **NP**(a) are in perfect agreement in feature terms (which fact leads to the generalisation proposed in the three procedures (1-3) above).

Thirdly, the proposed measure exactly parallels the cases of **Pm** and **Os**. Thus the same rules will cover all three instances. The constituents **Pm**, **Os**, and **At** are not to be considered as categories in the usual sense, but rather as a kind of grammatical formative in view of the fact that they do not dominate any other category or formative and that they have some sort of grammatical (or structural) meaning: **Pm** as predication marker, **Os** as goal marker, and **At** as attributive marker.

Fourthly, the process of deleting <+Pro> nouns after the feature copying is better motivated than that of merging them with **At** to produce respective suffixes, since in the latter treatment *focus* transformations would have to create <+Pro> nouns - which is not the case in the former. Besides, the former procedure is more general in that <+Pro> nouns and <-Pro> nouns may be dealt with in a single frame in feature terms and then idiosyncratic dropping of <+Pro> nouns can be effected by a later rule. Thus, for example, in deriving waa-yire *'their canoe'* and waa-yire tamolo kaa *'these chiefs' canoe'* from waa **At** yiir and waa **At** tamolo kaa

respectively, E 230 is more general than E 231.

E 230 1. At + [-SP, -HR, -SG, +Ani] ==> yire Hence:
a. *waa-yire yiir
b. waa-yire tamolo kaa

2. N ==> Ø Hence:
[+Pro, -Emp]
a. waa-yire

E 231 1. At + N ==> yire Hence:
[+Pro,-SP, -HR,-SG,+Ani]
a. waa-yire

2. At + +N ==> yire Hence:
[-Pro, -SP,-HR, -SG,+Ani]
b. waa-yire tamolo kaa

In short, the proposed approach renders the grammar much more general as well as simpler. At this point, a brief mention must be made concerning the alternation between la and li associated with focus transformation. Examine the following.

E 232 (a1) Ye se-wo fiit yela-li pese wee.
one length dog dm
'The length of the dog is one foot.'

(a2) Pese wee yilaa ye se-wo fiit yela-la.
fm
'As for the dog, its length is one foot.'

(b1) Xo sèsèrè kofa-ii medaa?
'What are you talking about?'

(b2) Kofa-li medaa melee xo sèsèrè?
result what fm *saying*
'What are you talking about?'

(b3) Medaa melee xo sèsèrè kofa-la?
'What are you talking about?'

(c1) Ye se-wo fiit yela-yire pese kawee.
'The length of the dogs is one foot.'

(c2) Pese kawee yilaa ye se-wo fiit yela-yire.
fm
'As for the dogs, their length is one foot each.'

In focus transformation, the NP focussed is placed in sentence initial position before a focus marker as noticed in E 232 (a2), (b2), (b3), and (c2). When the NP following li is focussed, li turns to la, while in case of yire no alternation occurs. A problem here is how the alternation li - la should be accounted for in the framework proposed above. As will be seen (*TRs 11, 13, 21* and *23*), there are some syntactic reasons to assume that when an NP is focussed and preposed, an anaphoric pronoun (anaphoric yiiyage in the case of PrepP) first fills the place left out by the focussed NP, and then this anaphoric element will be deleted under certain conditions. In this way, alternation between li and la may easily be accounted for, since la is the result of the presence of the anaphoric pronoun which is, by rule, of the same relevant features as the focussed NP (see *TR 15*). Thus, for example, derivations of E 232 (a1) and (c1) on the one hand and of E 232 (a2) and (c2) on the other are of the following processes.

E 233 yela- At pese wee Pm se-wo fiit

==> yela- At pese wee Pm se-wo fiit
F_1 F_1 F_2 F_2

==> Pm se-wo fiit yela- At pese wee
F_2 F_2 F_1 F_1

(a1) by *PR 14* ==> Ye se-wo fiit yela-li pese wee

yela- At pese kawee Pm se-wo fiit

==> ...

(c1) ==> ye se-wo fiit yela-yire pese kawee

Emp + yela- At pese wee Pm se-wo fiit
<+Emp>

==> Emp + yela- At pese wee Pm se-wo fiit
F_1 F_1<+Emp> F_2 F_2

==> pese wee Emp yela- At yiiy Pm se-wo fiit
F_1 F_1=>F_3 F_3 F_2 F_2

==> pese wee Emp Pm se-wo fiit yela- At yiiy
F_2 F_3

==> pese wee Emp Pm se-wo fiit yela- At
F_2 F_3

(a2) ==> Pese wee yilaa ye se-wo fiit yela-la.

Emp + yela- At pese kawee Pm se-wo fiit
<+Emp>

==> ...

==> pese kawee Emp Pm se-wo fiit yela- At yiir
F_2 F_2 F_3 F_3

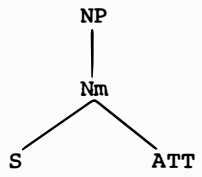
==> pese kawee Emp Pm se-wo fiit yela- At
F_2 F_3

(c2) ==> Pese kawee yilaa ye se-wo fiit yela-yire.

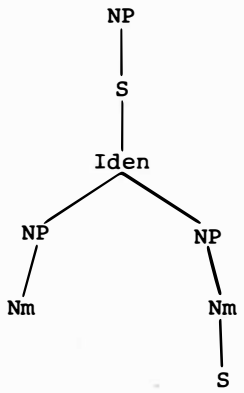
4.8.6.3. Two types are found in which a sentence is nominalised in attributive constructions (*BR 18*). One of them contains a sentence (S)

in the head position of an attributive construction, and the other contains an S in the position appositive to an attributive construction. The first may be called the head-S type, and the second the appositive-S type. The two types may be derived through base rules, in particular *BR 18*, plus nominalisation transformation. That is, in *BR 18*, Nm ⟶ S⌢ATT is related to the first, and Nm ⟶ S to the second, as in the following trees.

(1) head-S type



(2) appositive-S type



E 234 (a) head-S type

Weri-ya-yi xalufu lee.
see-it-my lizard this
'This lizard is what I saw.'

(b) appositive-S type

Re sa capPi-ya yaa-yire kakkataxace soxo-yire xobaye.
start their throwing Cl *-their*
'They began throwing their spears.'

(1) head-S type

On the surface, a large number of verbs, both intransitive and transitive, can be the head of an attributive construction.

E 235 loxo *'to go'*: loxo-yi *'my going'*
loxo-li yaramata wee *'the man's going'*

bboro *'to bend down'*:

bboro-yi *'my bending down'*

bboro-yire yaramata kawee

'the people's bending down'

weri *'to see'*: weri-ya-yi

weri-ya-li se-male yaramata

'what a person sees'

weri-ya-yi yixi *'the fish that I see'*

weri-ya-li se-male yaramata yixi

'the fish a person sees'

In spite of the superficial noun-like behaviour of the above intransitive and transitive verbs, it will be assumed that they are not nouns but forms derived by transformation from the corresponding main verbs of deep structure sentences. Several reasons for this assumption follow.

(1) Semantically, the attributive constructions in E 235 are sentences: actor(subject) - action(verb) relation in the intransitive and actor(subject) - action(verb) - goal(object) relation in the transitive. It is not unreasonable, therefore, to postulate Ss underlying the above surface forms. This is supported by a basic assumption in current TG that the deep structure is viewed as highly abstract and relevant for semantic interpretation and that the two distinct syntactic structures, deep and surface, are connected by a series of T-rules.

(2) Inherent verbs such as loxo, bboro, weri never appear as the subject, object, etc. unless they occur in an attributive construction. This means that their positions are fixed in deep structures under the domination of a category in the verb phrase.

(3) Transitive verbs used as attributive heads are not true classifiers in spite of the formal similarity. In other words, no feature agreement is required between the transitive verbs and the nouns with which they enter into appositive relation. Observe the following.

E 236 transitive verbs

(a) $[[[\text{Weri-ya-yi}]_{NP}\ [\text{pese}]_{NP}]_{S}]_{NP}\ [\text{melee}]_{NP}$

$\begin{bmatrix}+N\\+Ani\end{bmatrix}$

'This is the dog that I saw.'

(b) $[[[\text{Weri-ya-mu}]_{NP}\ [\text{cale}]_{NP}]_{S}]_{NP}\ [\text{melee}]_{NP}$

$\begin{bmatrix}water\\+N\\-Ani\\+drink\end{bmatrix}$

'This is the water that you saw.'

(c) [[[Ffèsègu-ya-yi]$_{NP}$ [pese]$_{NP}$]$_S$]$_{NP}$ [melwee]$_{NP}$
call *that*
'That was the dog I called.'

(d) [Xasi-ya-yi doxo]$_{NP}$ [babiyoro lee]$_{NP}$
carry [*book*, +N, -Ani]
'This book is what I've brought.'

(e) [Yitoli-ya-yi weya]$_{NP}$ [yixi lee]$_{NP}$
put dr *out* [*fish*, +N, ±Ani, ±*edible*, ...]
'This fish is what I've taken out.'

(f) [Dorofi-ya-yire]$_{NP}$ [male lee]$_{NP}$
[*bird*, +N, ±Ani, ...]
'This bird is what I've caught.'

(g) [Kamaaxo-ya-la]$_{NP}$ [feefele laay]$_{NP}$
watch *girl*
'That girl is what he is watching.'

(h) [Xamolo-ya-mami]$_{NP}$ [yegaage lee]$_{NP}$
finish *work'*
'This work is what we(excl) have finished.'

E 237 classifiers

(a) [[[lawu-yi]$_{NP}$ [pese]$_{NP}$]$_S$]$_{NP}$ [melee]$_{NP}$
[+N, +Cl, +Ani] [+N, +Ani]
'This is my (living object) dog.'

(b) [[[Guda-ca]$_{NP}$ [faca]$_{NP}$]$_S$]$_{NP}$ [melee]$_{NP}$
[+N, +Cl, +*chew*] [*pandanus*, +N, +*chew*]
'This is our(incl) (chewing object) pandanus.'

(c) [Lema-mu]$_{NP}$ [cale lee]$_{NP}$
[+N, +Cl, +*drink*] [*water*, +N, +*drink*]
'This water is for you to drink.'

Thus, the formal similarity but different grammatical relations existing between E 236 and E 237 may be satifactorily accounted for by

positing deep structure Ss in the former set of examples.

(4) Furthermore, the proposed postulation of S may be supported by the following pairs of examples in which the transitive bases are lexically related to the corresponding noun classifiers (related portions underlined in E 238 (b) for clarity). It is apparently unreasonable to treat both sets as nouns not only for morphological reasons but also because of the transformability of the first attributive construction of each pair into a well-formed sentence.

E 238 (a1) lawu-lu-ya-yi pese *'the dog that I will have'*
(Cf. Yi lawu-lu-ya pese wee. *'I will have the dog.'*)

(a2) lawu-yi pese *'my (living object) dog'*

(b1) yule-mi-ya-mu koofiy *'the coffee that you will drink'*
(Cf. Xo be ule-mi-ya koofiy lee. *'Drink this coffee!'*)

(b2) lema-mu koofiy *'your (drinking object) coffee'*

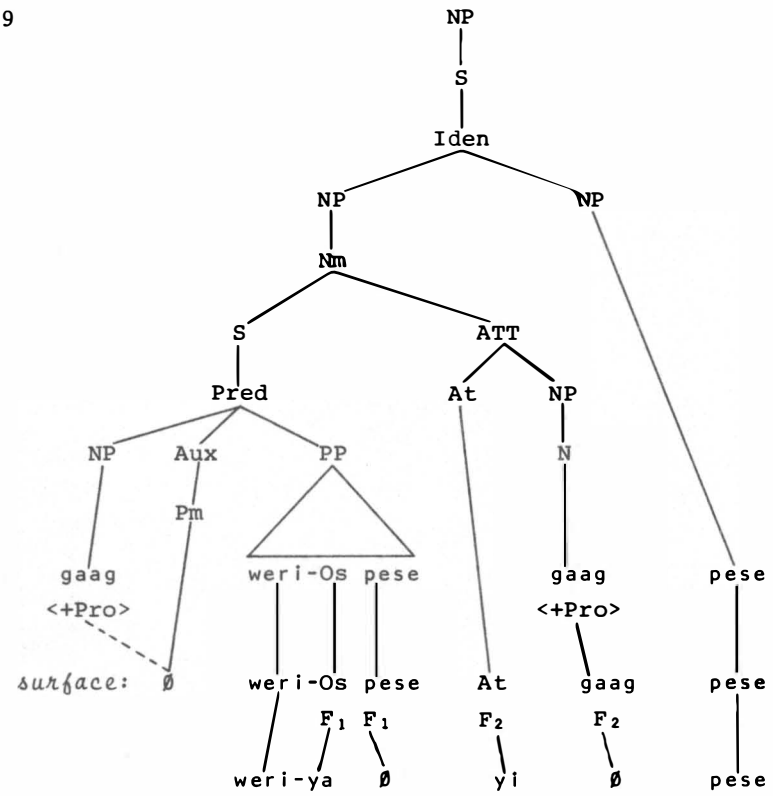
(c1) yaa-li-ya-ca babiyoro *'the book that we(incl) own'*
(Cf. Si be yaa-li-ya babiyoro wee *'We(incl) have the book.'*)

(c2) yaa-ca babiyoro *'our(incl) book'*

In connection with the proposed treatment, there are a few points to which particular attention should be drawn. First, -ya- always appears suffixed to a transitive verb before an attributive suffix. The nature of this -ya- is not clear - whether it is a kind of transitive increment or the 3rd per. sg. object suffix. I tentatively treat it as the latter for certain phonological and morphological reasons (see 4.12.2. for the discussion). Thus, for example, weri-ya-yi pese *'the dog I saw'* is viewed as the derivation of the following deep structure.

(See Deep Structure overleaf.)

E 239



Secondly, there is a small subclass of verbs, both intransitive and transitive, which may not be nominalised in the way described. Examples of the intransitive verbs of this subclass are as follows.

E 240 batabata *'to be thirsty'* : *batabata-yi *'my being thirsty'*
boo *'to swell'* : *boo-yi
calaxara *'to be delicious'* : *calaxara-yi
capara *'to trust'* : *capara-yi
cepcepe *'to kick'* : *cepcepe-yi

It must be noted, however, that these intransitive verbs may occur with li + NP in which case NP is not the deep structure action (subject) but related referentically to the preceding N. The lack of nominalisation in the above words may be so specified in their lexical entries. Besides, the above words are to be treated as both <+N> and <+V> and then the appearance only before li + NP may be by virtue of their being <+N> and [-__+Pro] as will be discussed shortly. Examples of transitive verbs of this subclass are even rarer.

E 241 kassiya *'to ask'* : *kassiya-ya-yi
talaga *'to listen to'* : *talaga-ya-yi

malixili *'to forget'* : *malixili-ya-yi
kawere *'to show'* : *kawere-ya-yi

Cf. Yi kassiya-ya Tom. *'I asked Tom.'*
but: *Kassiya-ya-yi Tom. *'Tom is the one I asked.'*

Thirdly, a Dr or Int may be inserted between At and the following NP as in E 242.

E 242 Pedi-ya[li]$_{At}$ [diye]$_{Dr}$ [yaramata lee]$_{NP}$ [luu lee]$_{NP}$
'This coconut is what this man has thrown down.'

From semantic considerations, Dr or Int occurring in the said position is to be viewed as generated not by *BR 17* but by *BR 12*, i.e. within S preceding ATT. *TR 36* moves Dr or Int from the pre-At position to the post-At position.

Fourthly, the negative particle te may occur before a nominalised verb.

E 243 Te pedi-ya-li diye yaramata lee luu lee.
'This coconut is not what this man has thrown down.'

A problem here is whether te is Mn generated by *BR 16* or TA of *BR 7*. Again recourse is made to the meaning, and te is considered as generated within S preceding ATT.

Fifthly, as will be noticed in *TR 36*, the structural description of the S to be nominalised may not include such constituents as Modality, SM, TA other than te, PrepP, etc. which indicates that any S which includes such constituents cannot be nominalised before ATT, i.e. is blocked.

Lastly, S + ATT also occurs as embedded in some other construction.

E 244 (a) [Babiyoro]$_{NP}$ [là xasi-ya-yi doxo]$_{COM}$ yilaa ye mommaye.
carry fm *good*
'The book which is what I've brought is good.'

(b) Ye sa ma xallayi-ya [mogoyo kawee]$_{NP}$ [fèèru-ya-la]$_{COM}$
taste *food* *make*
'He used to enjoy the food that she made.'

appositive-S type

One characteristic of this type is that the attributive head is always the general classifier yaa-. Therefore, the nominalisation of an S in appositive relation with an attributive construction presupposes the presence of yaa- as the head of the latter (*TR 37*). Examples follow.

E 245 (a) Yi weri-ya [yaa-yire /yiir/ fadè pèraase]$_{NP}$
see *plant rice*
'I saw their planting rice.'

(b) [Yaa-yi /gaag/ susulu]$_{NP}$ [yixi lee]$_{NP}$
broil *fish*
'This fish is what I broiled.'

(c) Re xula-ya [yaa-mu /xeel/ sa tagi]$_{NP}$
know *cry*
'They know the fact that you have cried.'

(d) Re sa wedi-ya [[yaa]$_{N}$ [yire]$_{At}$ [lulapa-li Moxmox wee mè
wait *king* *and*
melwee lawu-li lulapa-li Losiyop wee]$_{NP}$ [[xapatapata]$_{S}$]$_{NP}$]$_{NP}$
that *child* *talk*
'They waited for the king of Mogmog and the Losiyop prince to talk.'

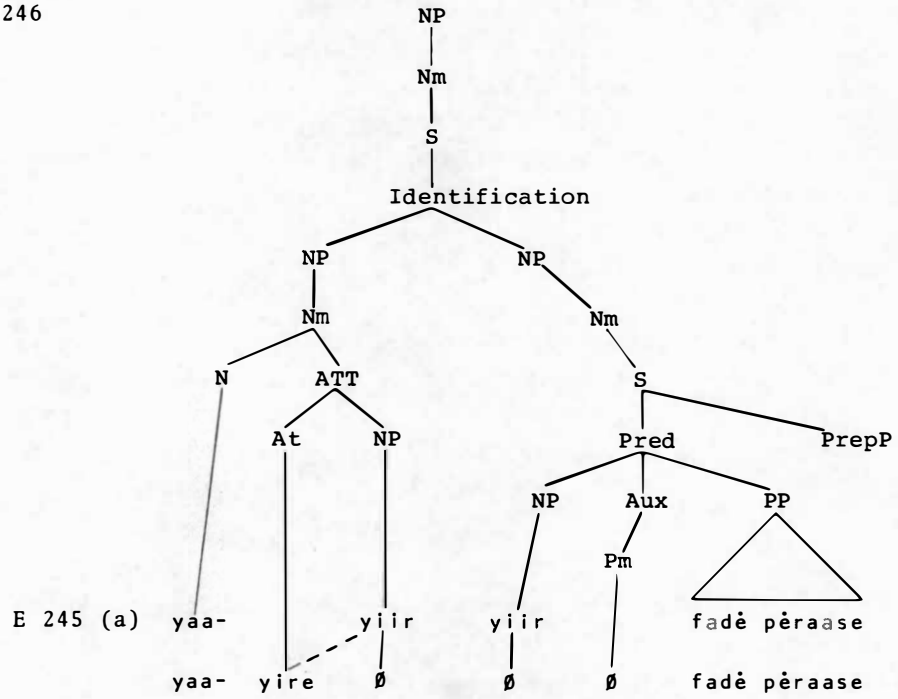
(e) Yilaa melee faa-li [[yaa]$_{N}$ [li]$_{At}$ [tamolo-li Bollap wee]$_{NP}$
that fm *reason-of* *chief*
[[paluya [yiiyage]$_{PrepP}$]$_{S}$]$_{NP}$]$_{NP}$
navigate anaph
'That's the reason for the chief of Ponnap becoming a navigator.'

(f) Pese lee yilaa [[yaa]$_{N}$ [-la]$_{At}$ [/yiiy/]$_{NP}$ [[faga gali-
give to
yeyi /gaag/]$_{S}$]$_{NP}$]$_{NP}$
'This dog is what he gave to me.'

In contrast to the head-S type, the non-occurrence of Modality is the only limitation to the constituents of the S in the appositive-S type. Besides, deletion of items is limited to the subject NP and Pm in the nominalised S, because of the limitation in the identical items for which any deletion can be effected. One feature the two types have in common is that the S to be nominalised is of the Predication type and the main verb is an inherent verb, i.e. not any kind of noun.

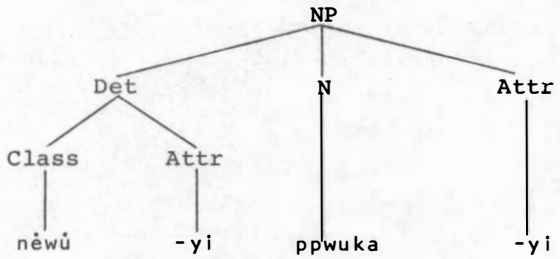
The deep structure of the NP of the appositive-S type is of the following form, which may be applicable to all the examples given in E 245.

E 246



4.8.6.4. In Trukese, Benton dichotomises attributions into possessive and referential (1968:Ch.5) and formalises this dichotomy through his syntactic rules (1968:193) by assigning the former to the category Det (consisting of the immediate constituents Class and Attr) in such a way that Det is dominated by NP, which in turn may dominate - along with this Det - N and Attr, the categories covering the referential attribution. Thus, Benton gives as an example the following tree structure (194).

E 247

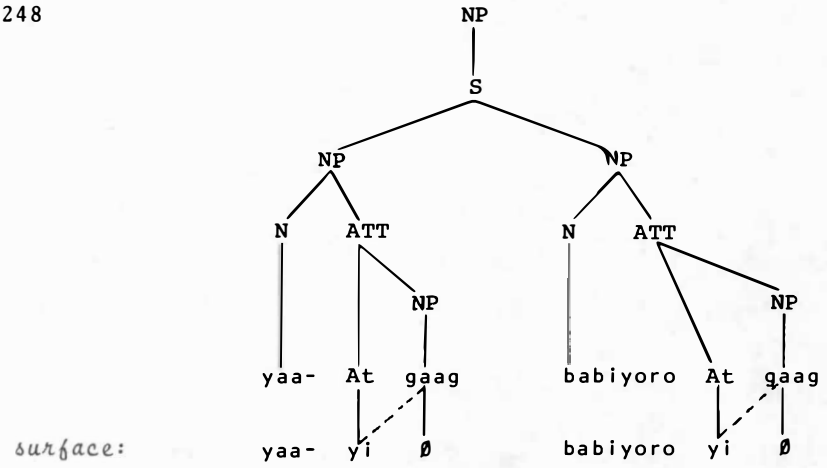


'my book about me'

In spite of the apparent meaning difference between the *possessive* and *referential* attribution, I have decided in Ulithian not to make any categorical differentiation. Besides, as repeatedly indicated, the

relation existing between an attributive construction including the head and the following noun phrase (which is another attributive construction in the above Trukese example) is appositive and thus derivable from the corresponding identification sentence. Thus the Ulithian equivalent to the above Trukese phrase has the following deep structure (with abbreviations).

E 248



The difference between *possessive* and *referential* can be accounted for more generally in terms of inherent features, i.e. the distinction is not structural but lexically inherent. For example, bisi-yi *'my brother'* and lagace-yi *'beside me'* are structurally similar in that both may not be followed by a noun, nor preceded by a classifier. However, bisi-yi has only and always a *possessive* meaning, while lagace-yi has only and always a *referential* meaning. On the other hand, lagace-yi and babiyoro-yi *'book about me'* both have only a *referential* meaning, but structurally they are different since babiyoro-yi may be preceded by a classifier. Finally, bisi-yi and lawu-yi *'my child'* both have *possessive* meaning but structurally lawu-yi may be followed by a classified noun which is not the case with bisi-yi. In short, the possessive-reference difference has little to do with structure, but more with the inherent features of lexical items. Therefore, it seems reasonable for all the classifiers and the so-called inalienable nouns such as bisi- *'brother'*, påwWu *'hand'* to be assigned the feature <+possessive>, and all other nouns <-possessive>. In this case, it can be said that only <-possessive> nouns have *referential* meaning when they are followed by an attributive phrase (ATT). The different contextual restrictions of various nouns may be dealt with by means of contextual features to be assigned to each lexical entry. Such contextual features, as well as

inherent features, may serve the overall classification of nouns. Some representative inherent and contextual features related to attributive constructions are given in Table VIII together with examples of related lexical items.

TABLE XI

FEATURES OF NOUNS

	lalow *yesterday*	medaa *what*	wòò- *on*	yixi *fish*	tèxtaa *doctor*	yila- *inside*	yiree- *at*	xulè *song*	bisi- *broth*	lema- *drink*
[__ATT]	-	-	+	+	+	+	+	+	+	+
<poss>	(-)	(-)	-	-	-	-	-	-	+	+
<Cl>	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	-	+
[__At<+Pro>]	(-)	(-)	-	-	-	+	+	+	(+)	(+)
[<+Cl>__]	-	+	-	+	+	-	-	+	(-)	(-)
[__At<+Ani>]	(-)	(-)	-	+	-	+	+	(+)	(+)	(+)

Different kinds of *referential* meanings are noticeable in the following examples.

E 249 (a) barèxo-yire *'dance for them'*
bage-mu *'hostile feeling against you'*
yaa-yi xulè-miyi *'my song for you(pl)'*
tèxtaa-li male *'animal doctor'*
Ben -li yiiyaa *'Ben from where?'*
yaa-yire màle kawee fedexe-li feefele *'those men's fighting over women'*
wòò-li fase lee *'on this stone'*
yixi-li Yasor *'fish from Yasor'*
yila-li yìma *'inside the house'*
mè yiree-li mogoyo *'from eating'*
pakka-li tamolo *'shooting of the chief'*
tagi-yi *'crying for me'*
senseye -li yalo-li Meriken *'a teacher of English'*
yeliwici-li sukuun *'student'*

(b) Ye sa rogrogo kapata-li yixi là ye coolopa.
rumour about fish many
'He heard the rumour about the fish which are abundant.'

Gaag se-male cȯȯ-li yegaage-li yixaa.
man work here
'I am a worker here.'

Yi sa gucu-li fitaa-li yiluxu.
tired fishing ocean-side
'I am tired of fishing of the ocean-side.'

Xa ma paapa-li marama.
counting moon
'We usually count moons.'

4.8.7. *NUMERATIVE CONSTRUCTION* (NUC)

4.8.7.1. For the syntactic position of NUC and its expansion, refer to *BR 18*, *BR 20*, and *BR 21*, and for the lexical formatives, to the Lexicon under 4.8.1.

NUC is placed in disjunctive relation with N in *BR 18*, since in many syntactic environments the two categories may replace each other. Thus, as in N, a numerative construction may appear as the antecedent of a COM, and with Dr, Int, or ATT, etc. Examples of various occurrences of NUC follow.

E 250 (a) Yifaa [se-wo]$_{NUC}$ [lȁ xo dipali-ya]$_{COM}$ yiiyee xaree yilaa?
which that want this or that
'Which is the one that you want, this or that?'

(b) [Xal]$_{Mn}$ [ruwė-male]$_{NUC}$ [cox]$_{Int}$ [yaa-yire buu doxo]$_{NP}$
2 their
'Only two people have come.'

(c) Ye tay [se-male]$_{NUC}$ [ṁo]$_{Int}$ [yaramata]$_{NP}$
ng *even person*
'There was not even one person.'

(d) [Xa-ruwė-xaye]$_{NUC}$ [-li pinsan]$_{ATT}$ melee yaa-yi
Ord *2* Nucl fm *mine*
'The second pencil is mine.'

4.8.7.2. Two kinds of relation are observable between a NUC and the following NP: appositive and attributive. The former relation is the result of the nominalisation of identification sentences, which approach is different for example from that of Benton's Trukese (1968:160) in which "numerals" are viewed as "determiners" within the noun phrase. Justifications for the appositive treatment were made under the section of Identification (4.5.3.). In the case of the attributive relation,

the meaning is always *referential*. The two relations are illustrated in the following sentences.

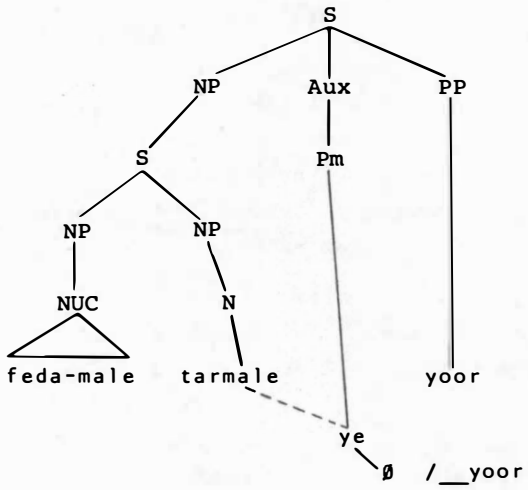
E 251 appositive

(a) Yoor [feda-male]$_{NUC}$ [tarṁale]$_{NP}$?
exist how-many *boy*
'How many boys are there?'

(b) Ye xasi-ya [tèèt]$_{NUC}$ [pèraase mada]$_{NP}$
carry *some* *rice* *cooked*
'He carried some cooked rice.'

E 251 (a) has roughly the following deep structure.

E 252



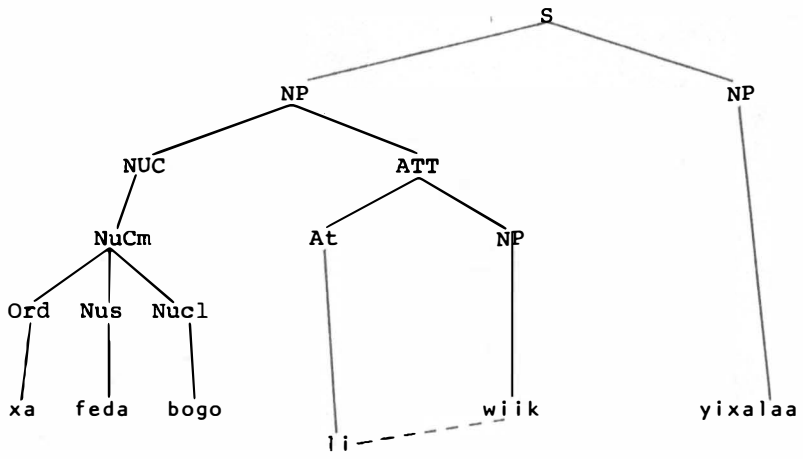
E 253 attributive

(a) [Xa-feda-bogo]$_{NUC}$ [-li wiik]$_{ATT}$ yixalaa?
Ord *how-many* Nucl *(night)* *today*
'What day of the week is it today?'

(b) [[Xa-ruwè-yexe]$_{NUC}$ [-li /yiṁa/]$_{ATT}$]$_{NP}$ [mè]$_{con}$ [[se-wo]$_{NUC}$ [-li
Ord *2* Num *(10)* Nucl (gen)
yiṁa$_{ATT}$]$_{NP}$ melee yaa-yire
theirs
'The twenty-first house is theirs.'

E 253 (a) has the following deep structure.

E 254



There is no surface construction in which **ATT** follows a **NUC** which does not contain **Ord xa** (e.g. **se-xaye luu** but ***se-xaye-li luu**). In spite of this surface deficiency of the non-ordinal numerative construction followed by **ATT**, there is some motivation to consider the following set of examples to be in attributive relation in deep structures.

E 255 (a) **se-male xaamami** *'one of us(excl)'*
(b) **se-male yaramata kawee** *'one of those people'*
(c) **se-xaye yiree kaa** *'one of these trees'*
(d) **se-wo mogoyo kalaa** *'one of many kinds of food'*
(e) **tėėt yiir** *'some of them'*
(f) **ruwė-yaye piskaa kaa** *'two of these spears'*

The relation existing between the two terms of each phrase is apparently different from that existing in the following which is appositive.

E 256 (a) **se-male yeliwici** *'a child'*
but: ***se-male yiiy**
(b) **se-xaye yiree** *'a tree'*
(c) **tėėt yaramata** *'some people'*
(d) **ruwė-yaye piskaa** *'two spears'*

In the first place, the examples in E 255 have a partitive sense and the first term of each phrase may be singular but the second is always plural, while this is not the case in E 256. Secondly, plural pronouns may occur as the second **NP** in E 255, but no pronoun is allowed in E 256. Thirdly, a demonstrative suffix is obligatory after a noun in the second **NP** in E 255, while no demonstrative suffix occurs in E 256. The structural complementarity between the two sets of examples might lead one to

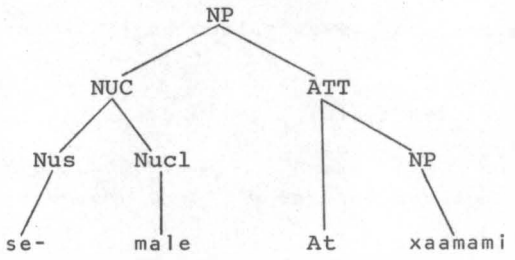
treat them in a single framework, ascribing the meaning difference to the structure. But the problem is to identify the grammatical relation existing between the two terms in each example in E 255, e.g. between **se-male** and **xaamami**. It is certainly not that of apposition, thus not related to an Identification sentence. Furthermore, it is obvious in E 255 that the numerative construction is the head in relation to the following NP, in that only the features of the former are copied by **Pm**, **Os**, or **At**.

E 257 (a) Se-male yiir yilaa {ye / *re} mele lagace-li tade.
fm *live side sea*
'One of them lives beside the sea.'

(b) Yoor se-male yeliwici kawee là {ye / *re} capara yiree-li melee.
child dm *who believe at this*
'There is one of the children who believes this.'

From the above observation, it is not unreasonable to consider that the phrases in E 225 are derived from the deep attributive construction as in E 253. Thus, for example, **se-male xaamami** *'one of us(excl)'* is viewed as having the following deep structure.

E 258



A T-rule will delete **At** in the structural index in which **Ord** (ordinaliser) does not appear under the domination of **NUC** (*TR 18*). By this early deletion of **At**, **xaamami** remains on the surface, where otherwise it would be dropped (cf. *TR 21*). **At** in the deep structure has a kind of grammatical meaning such as *attributive* or *relational* marker. Thus, for example, **se-male xaamami** may be semantically interpreted in the same way as **paaga-mami** (deep: **paaga- At xaamami**) *'all of us(excl)'*. The above treatment has the advantage of filling a gap in **NUC⁀ATT** as well as of solving the problem of the non-appositive relation for example in **se-male xaamami**, but it leaves open the problem of the structural complementarity indicated earlier.

4.8.7.3. The slot of repeatative (Rpt) has a single filler, **ka** *'each, by'*. This morpheme seems to be related to the "plurality" morpheme in demonstrative enclitics (e.g. **kalaa**). The occurrence of the repeatative

ka presupposes the presence of a numerative compound (NuCm) or a quantifier (Qnt). Thus, it never occurs before a noun (e.g. ka ruwė-wo *'two by two'* but *ka yiree *'tree'*).

E 259 (a) Ye to [[ka]$_{Rpt}$ [se-wo]$_{NuCm}$]$_{NPs}$ [yicuu-la /yiiy/]$_{PrepP}$
Pm *stay* *on*
'Each one is in it (tree or canoe), one by one.'

(b) Ye [[ka]$_{Rpt}$ [ruwė-male]$_{NuCm}$]$_{VP}$ [lå re buu logo yixaa]$_{NPs}$
that come in here
'They came here two by two.'

(c) Re buu doxo [faa-li [ka se-wo yado]$_{NP}$]$_{PrepP}$
under Rpt NuCm *time*
'They came once in a while.'

(d) Faga [gali-xomami]$_{PrepP}$ [[ka se-depi]$_{NUC}$ [fulowaa]$_{NP}$]$_{NP}$ [bo
give to us(excl) *bread* *as*
xala-mami]$_{PrepP}$
food
'Give us(excl) bread piece by piece for our food.'

(e) Lodow mė Yasor yilaa malboo be [ka sulu-yexe]$_{NUC}$
fm *maybe*
[cox]$_{Int}$ [yaramata]$_{NP}$ [yiiyage]$_{PrepP}$
there
'As for Lodow and Yasor, there are about thirty people each there.'

(f) [[Rool]$_{Mn}$ [ka sulu-fase]$_{NUC}$ [fisi]$_{NP}$]$_{NP}$ melee re sa were.
alto-gether *star* fm *shine*
'Stars were shining three by three.'

(g) Ka [tėėt]$_{Qnt}$ pese gė re sa mese.
fm
(lit. *as for dogs they died some by some*)

(h) Xateyili-yVre yikalaa [ka]$_{Rpt}$ [/xa/]$_{Ord}$ [sulu-]$_{Nus}$ [male]$_{Nucl}$
collect *those*
[-li yaramata]$_{ATT}$
person
'Let every third person gather together.'

4.8.7.4. NuCm and Qnt are immediate disjunctive constituents of the numerative construction (NUC) in BR *20*. The term "numerative compound" is borrowed from Dyen (1965:15) for NuCm and that of "quantifier" for Qnt from Benton (1968:175) who adopted Hla Pe's terms. However, the ranges covered by the terms in this study are not the same as those intended by the authors referred to. Qnt will be discussed here, taking up the constituents of NuCm in the next few subsections.

The category Qnt is set up for syntactic purpose, i.e. to involve a small set of lexical items which behave like a numerative compound (NuCm): tèèt *'some'*, suxufed *'a little'*, and sibis *'a few, some'*. These items happen to share the semantic features of a quantifier, but such semantic features are not relevant in this study. Thus, some classificatory elements which are semantically "quantifiers" are not dealt with under Qnt but included with other classifiers under Nucl in view of their shared syntactic behaviour.

Morphologically, suxufed and sibis might be analysed as se-xufed and se-bis respectively each including se- *'one'*. The second elements, however, do not have an independent meaning, and other numerative stems (e.g. ruwè *'two'*, sulu *'three'*) never replace se-. Besides, the three Qnt members share the unique characteristic that they never occur after ordinaliser (Ord) xa. For these reasons, suxufed and sibis are treated as units, alongside of tèèt.

Tèèt and sibis are almost always interchageable, though there is some preference of one over the other in certain syntactic contexts. This pair has a wider distributional range than suxufed (which indicates far less in quantity), i.e. the former pair may occur wherever suxufed does, but the reverse is not always the case.

E 260 (a) Yitoli doxo $\left\{\begin{matrix}\text{tèèt}\\ \text{sibis}\\ \text{suxufed}\end{matrix}\right\}_{\text{NUC}}$ cale bo lema-yi /gaag/.
put *as drink-my*

'Bring $\left\{\begin{matrix}\textit{some}\\ \textit{some}\\ \textit{a little}\end{matrix}\right\}$ *water for me to drink!'*

(b) $[\text{Xal}]_{\text{Mn}}$ $\left\{\begin{matrix}\text{tèèt}\\ \text{sibis}\\ \text{*suxufed}\end{matrix}\right\}_{\text{NUC}}$ cox yaramata melee re be loxo.
only

'Only a few people will go.'

(c) Xasi-ya doxo $[\text{suxufed}]_{\text{NUC}}$
'Bring a little here!'

(d) Yoor $[\text{sibis}]_{\text{NUC}}$ $[\text{soyuu}]_{\text{NP}}$
'We have some soy sauce.'

(e) [Tèèt]$_{NUC}$ [faluya kalaa]$_{ATT}$ yilaa te yoor yiree wuwòò-
island fm *tree on*

la bo ppiya cox.
it because sand

'Some of those islands are nothing more than sand.'

4.8.7.5. The ordinaliser (+Ord) xa seems to be the same morpheme as the causative xa. Ordinal numbers are expressed by

$$xa + Nus + \{^{Nucl}_{Num}\} + ATT$$

in which xa and ATT always co-occur. The attributive affix in ATT is always li, which means that pronouns do not occur as the NP in ATT.

E 261 xa-ruwè-male-li yaramata *'second person'*
Nucl

xa-se-yexe-li yiṁa *'the tenth house'*
Num

Xa does not occur with se- + Nucl to mean *'first'*. Instead, matamòò- or mòò- takes the position of xa + se- + Nucl.

E 262 *xa-se-male-li yaramata
but: matamòò-li yaramata
or: mòò-li yaramata

In case of composite numerative stems, each stem may be ordinalised (i.e. xa-...-li). However, xa- and/or -li may optionally be dropped, except in the last stem where -li is obligatory.

E 263 (a) (xa-)se-yexe(-li) mè (xa-)se-male-li yixi
10 *1*
'11th fish'

(b) (xa-)se-garase(-li) mè (xa-)se-buxuya(-li) mè
(xa-)sulu-yexe(-li) mè (xa-)ruwè-male-li male
'1132nd man'

The ordinals from the *'2nd'* through *'5th'* plus yegaage *'work'* are used as the names of the days of the week from Tuesday through Friday.

E 264 sandey *'Sunday'*
montaax *'Monday'*
xa-ruwè-rale-li yegaage *'Tuesday'*
day
(Nucl)
xa-sulu-rale-li yegaage *'Wednesday'*
xa-faay-rale-li yegaage *'Thursday'*

xa-lime-rale-li yegaage *'Friday'*
dabeedoo *'Saturday'*

4.8.7.6. There are ten numerative stems (+**Nus**) including an indefinite **feda** *'how many, a few'* (see the Lexicon under 4.8.1.). **Nus** occurs obligatorily either with **Nucl** (numerative classifier) or with **Num** (numerative multiple). For the morphophonemic changes involving **Nus**, **Nucl**, and **Num**, see 3.6.3. and 3.6.4.

Feda has the feature <+Q>. If it occurs with the Modality constituent **Q**, it has the meaning *'how many?'*, while it is translated as *'a few'* if **Q** does not appear (see 4.11.2.).

E 265 (a) xa-feda-yaye-li waa *'how manieth canoe?'*
Nucl

xa-feda-xaye-li yiree *'how manieth tree?'*
Nucl

xa-feda-bogo-li marama *'how manieth day of the month?'*
Nucl

(b) feda-wo coo *'how many copra?'*
Nucl

feda-womu wucu *'how many bundles of bananas?'*
Nucl

feda-fase fase *'how many stones?'*
Nucl

(c) feda-male yixi *'a few fish'*
feda-fase salapiya *'a little money'*
feda-yaye waa *'a few canoes'*

(d) Ye sa feda-wo kulok?
'What time is it?'

Feda-male yixi là xa sa xola-ya?
which
'How many fish did you(pl) catch?'

Sa feda-wo tayim yaa-li Ben buu doxo yixaa?
'How many times has Ben come here?'

(e) feda-yexe *'how many tens?'*

4.8.7.7. The agreement between a **Nucl** and the following **NP**, whether the relation is appositive or attributive, is in terms of inherent

features. Thus, for example, male which has <+Nucl, +animate> may co-occur with yeliwici *'child'*, pese *'dog'*, etc. which have <+animate>.

E 266 ruwė-male yeliwici *'two children'*
<+ani> <+ani>

ruwė-male /At/ yeliwici kalaa *'two of those children'*
<+ani> <+ani>

xa-ruwė-male-li pese *'the second dog'*
<+ani> <+ani>

The relation between a numerative classifier and the co-occurable nouns is that of class-member on the lexical level. For example, male is a class which has the members yeliwici, feefele *'woman'*, male *'bird'*, ṁale *'man'*, xatuu *'cat'*, etc.

Except for the most general classifier wo, all the Nucls have certain lexical meanings, many of which are independent lexical items (e.g. bogo *'night'*, rale *'day'*, fase *'stone'*). As a result, some of the classifiers function as "repeaters" as in se-rale(rale) *'one day'*, se-fase fase *'a stone'* along with se-fase mata *'one eye-ball'*, etc. The general classifier wo includes as members those objects which are otherwise unclassified on the one hand, and which may replace other classifiers with a more general meaning on the other. Wo optionally drops after se- *'one'* if not followed by ATT.

The following give the examples of those noun stems which may occur with the numerative classifiers listed in the Lexicon under 4.8.1. Nus se- and a rough meaning are assigned to each classifier. The list of classifiers is only partial and illustrative.

se-bogo *'night'*
bogo *'night'*

se-cayė *'leaf-like object'*
babiyoro *'torn piece of paper'*
fadėlė *'paddle'*
paddulu *'coconut palm'*
cayė *'leaf'*
mage *'pandanus mat'*

se-depi *'flat piece'*
babiyoro *'sheet of paper'*
fȯtoxuraaf *'picture'*
magaaxu *'clothes'*
pexe *'wall'*
coo *'slice of copra'*
fulowaa *'piece of bread'*
mȧyi *'breadfruit'*
yiree *'piece of wood'*

se-fase *'round object'*
bulaxa *'taro'*
kumėėtiya *'potato'*
fase *'stone'*
mata *'eye'*

mmulu *'spool of thread'*
subuyasii *'onion'*
salapiya *'money'*
xarfada *'apple'*

se-gȯlo *'bundle of ten'*
luu *'coconut'*

se-male *'animate'*
liyooso *'toy'*
xece *'rat'*
yulėėlapa *'old woman'*
tarṁale *'boy'*
yixi *'fish'*

se-mata *'kind'*
fase *'stone'*
yiree *'tree'*
yiṁa *'house'*

se-paa *'lei-like object'*
marmara *'lei'*
yara *'a kind of tree'*

se-pade *'speech'*
xapatapata *'speech'*

se-pėyė *'drop'*
fulorase *'flower'*
yinkii *'ink'*

se-raa *'branch'*
raa *'branch'*

se-rale *'day'*
rale *'day'*

se-ree *'side'*
belaa *'shoe'*
magaaxu *'torn piece of clothes'*
pėė *'feather'*
dudu *'breast'*
pȧwWu *'arm'*

se-tabo *'half piece'*
fulowaa *'half a piece of bread'*
tale *'piece of rope'*
yawu *'string'*
mmulu *'thread'*
xoxolo *'string made from coconut leaf'*

se-wo *'general object'*
babiyoro *'book'*
ggata *'hole'*
luu *'coconut'*
paca *'tail'*
dėrė *'woman's lavalava'*
kaxaro *'box'*
mogoyo *'food'*
salapiya *'money'*

se-womu *'bundle'*
luu *'coconut'*
wucu *'banana'*

se-xaye *'tree-like or book-like object'*

babiyoro *'book'*
faca *'pandanus'*
yiree *'tree'*

se-yale *'butt or line-like object'*

tamaaxoo *'cigarette'*
yawu *'string'*
yegaage-li wucu *'banana fiber'*

se-yaye *'long-slender object'*

bòòdu *'nose'*
fulowaa *'load of bread'*
kku- *'finger nail'*
payep *'pipe'*
pinsan *'pencil'*
piskaa *'fishing spear'*
sare *'big knife'*
tomtom *'harmonica'*
ttoo *'canoe seat'*
waa *'canoe'*
waxara *'root'*

4.8.7.8. Numerative multiples (+Num) consist of yexe *'multiple of ten'*, buxuya *'hundred'*, garase *'thousand'*, sele *'ten thousand'*, and ppiya *'hundred thousand'*. However, sele is, strictly speaking, not **Num**, because a **Nus + Nucl** (general) must precede it as in ruwè-wo sele *'20,000'*. Thus, sele is regarded lexically as a noun stem (+N). Se- preceding ppiya is normally dropped as in ppiya *'100,000'*, ruwè-ppiya *'200,000'*, etc. A **Nus + Num** may be preceded or followed by another in such a way that **Nus + Num** with a higher decimal precedes that with a lower decimal, connected by mè *'and'*. **Nus + Nucl**, if it appears, takes the last position. The conjunction of numerative compounds in this way may be handled by BR 15. Examples are given below, including sele *'ten thousand'*.

E 267

se-yexe	*'10'*
ruwè-yexe	*'20'*
se-buxuya	*'100'*
se-garase	*'1000'*
sele	*'10,000'*
ruwè-wo sele	*'20,000'*
sulu-wo sele	*'30,000'*
diwa-wo sele	*'90,000'*
ppiya	*'100,000'*
ruwè-ppiya	*'200,000'*
diwa-ppiya	*'900,000'*

se-yexe mè se-wo babiyoro	*'11 books'*
se-buxuya mè ruwè-yexe	*'120'*
se-garase mè se-male yaramata	*'1001 persons'*
se-garase mè diwa-buxuya mè wòle yexe mè wàlu-wo...	*'1968...'*

4.8.7.9. There is a set of numerals which is not syntactically relevant, i.e. the rapid counting numerals.

yȯȯd	*'one'*	wȯȯl	*'six'*
ruy	*'two'*	fiis	*'seven'*
yeel	*'three'*	wȧȧl	*'eight'*
faag	*'four'*	diiw	*'nine'*
liim	*'five'*	se-yexe	*'ten'*

When more than ten objects are counted serially, counting starts again from yȯȯd.

4.8.8. *PRONOUNS*

Pronouns, demonstrative elements, interrogatives, and possessive classifiers are some syntactically characteristic subclasses of nominals (+N) which require separate discussion. Pronouns will be discussed in this section, and the rest in the next few sections.

4.8.8.1. The Ulithian pronouns are assumed to be a subclass of nominals, i.e. formatives characterised by the features <+N> and <+Pro> under the domination of N in deep structures. This assumption renders both the base and transformational rules simpler and more general compared to a possible alternative in which a category is postulated to exclusively dominate the set of pronouns. The approach adopted here is close to the proposal made by Postal (1966:177-206) concerning English pronouns except that I do not follow his treatment of pronouns as definite articles on the surface.[2] As has been mentioned (4.5.3.), pronoun-noun constructions are appositive, derivable from Identification sentences. Consider the following sentences.

E 268 (a) Re bu doxo yiir senseye kalaa mė Yap.
come dr *they*
(lit. *they those teachers are from Yap*)

[2]In phrases like *you guys*, *we men*, Postal (1966:177-206) views *you*, *we*, etc. as definite articles, opposing the proposal of derivation of the phrases from appositive relative clauses. Postal says that forms like *we men* occur in a variety of contexts where appositive relatives may not. All his supporting examples in this regard, however, do not seem to constitute strong evidence, since he does not distinguish two different types of "appositive relative" clauses. For example, he would seem to call both *we, who are men* and *we, who are six feet tall* "appositive relatives". In Ulithian, the two phrases manifest entirely different structures, one Identification and the other Predication. In spite of his various further justifications for his treatment of pronouns in English as definite articles on the surface, I shall regard pronoun-noun constructions in Ulithian as appositive, derivable from the corresponding Identification sentences.

(b) Ye xasi-ya yiiy babiyoro wee.
carry-it it
(lit. *he carried it the book*)

(c) Yi sa weri-ya yiir faluya kawee.
(lit. *I saw them those islands*)

(d) Dempoo-li medaa yiiy malaa?
dispatch what it that
(lit. *it that is dispatch of what?*)

(e) Xeel Libertus melee xo sa loxo.
you fm
(lit. *you Libertus, you go!*)

The underlined parts in E 268 which are each an appositive pair may be derived from the following Identification sentences respectively.

E 269 (a) $[[\text{Yiir}]_{NP}\ [\text{senseye kalaa}]_{NP}]_S$
'They are those teachers.'

(b) $[[\text{Yiiy}]_{NP}\ [\text{babiyoro wee}]_{NP}]_S$
'It is that book.'

(c) $[[\text{Yiir}]_{NP}\ [\text{faluya kawee}]_{NP}]_S$
'They are those islands.'

(d) $[[\text{Yiiy}]_{NP}\ [\text{malaa}]_{NP}]_S$
'It is that.'

(e) $[[\text{Xeel}]_{NP}\ [\text{Libertus}]_{NP}]_S$
'You are Libertus.'

The distinction between <+Pro> and <-Pro> nominals on the feature level is imperative, because the former has some important syntactic characteristics which the latter lacks. For example, pronouns do not appear before ATT; many nouns which do not have suffixal inflection are specifically marked by [-__At<+Pro>], etc. The pronouns yiiy *'he, she, it'* and yiir *'they'* do not appear before a demonstrative enclitic (+Dm) but the others do, as in the following examples.

E 270 (a) Gaag lee yilaa yi be la fitaa.
I this fm *go fishing*
(lit. *this-I, I will go fishing.*)

(b) Xaamami kaa xa be xàátaa?
we(excl) do-what
(lit. *as-for-these-us, what shall we(excl) do?*)

(c) Xeel laa xo be loxo xaree xo towee loxo?
you that
(lit. *that-you, will you go or not?*)

E 270 indicates that it is unreasonable to regard pronouns as a class parallel to Nm + Dm, but rather supports the assumption that pronouns are a special subclass of N. The following examples give some additional evidence that pronouns are by no means a class which can be placed in disjunctive relation with the whole NP in the deep structure, since they occur after Mn (nominal manner particles) and before COM (complement or relative), Dr, Int as well as Dm.

E 271 (a) [Xal]$_{Mn}$ yiir [cox]$_{Int}$ melee re sa mese.
only +Pro *just* fm *die*
'Only they died.'

(b) Xeel [là[xo mele lagace-li tade melee xo be
+Pro *who* *near* *sea* fm
dorofi-ya /yiiy/]$_{S}$]$_{COM}$
catch it
'You, catch it, since you live near the sea!'
(lit. *you who live near the-sea, you catch it*)

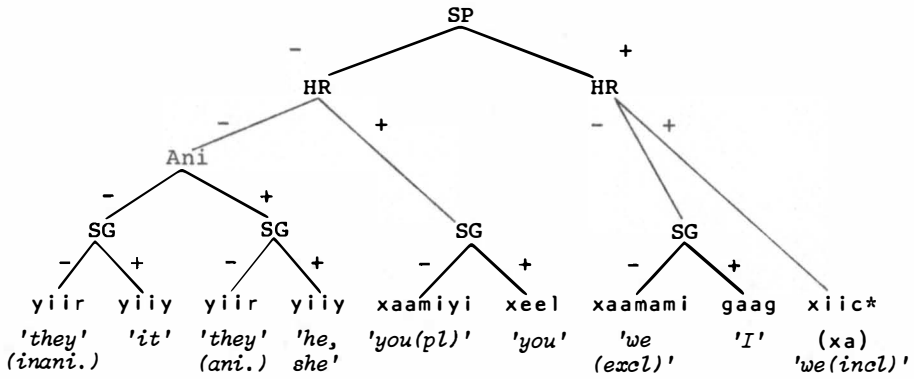
Then it is clear that the part italicised (by me) in the following quotation from Postal (1966:177) is not correct with respect to Ulithian: "Certain modern students of English such as Robert Allen have noted, essentially correctly, that in many ways such forms actually 'replace' whole noun phrases (henceforce NP) rather than nouns, *since they cannot occur with articles, relative phrases, and other elements which can occur in the same NP with ordinary nouns.*" I agree with Jacobs and Rosenbaum (1967:51) that pronouns are placed in sentences in two ways, i.e. in the deep structure and through a transformation. I would like to extend this principle and conclude that, in Ulithian, pronouns are a subclass of N in the deep structure, but they replace the whole noun phrase in case of pronominalisation. To that extent, pronouns have dual functions, i.e. both as nominals and as substitutes. Observe the following examples.

E 272 (a) Mooc xaamami melee xa sa buu doxo.
(nominal)
'Just we(excl) have come.'

(b) [Tèxtaa kalaay re mommaye]$_{NP}$ yilaa re sèrè bo [yiir]$_{NP}$
dm *good* fm *say that* <+Pro>
(substitute)

melee re buu doxo mè Merikan.
fm
'Those good doctors say that they are from America.'

4.8.8.2. The feature composition of the pronouns is as follows.



redundancy rules: 1. $\begin{bmatrix}+SP\\+HR\end{bmatrix} \longrightarrow$ <-SG>

2. $\left\{\begin{matrix}<+SP>\\<+HR>\end{matrix}\right\} \longrightarrow$ <+Ani>

*xiic and xa occur in free variation before si (Pm), otherwise xiic.

FIGURE 9

FEATURES OF PRONOUNS

Although no formal differentiation is made by <+Ani> and <-Ani>, the postulation of this feature is crucial in order to handle various contextual restrictions and agreements, as will be seen in CHAPTER V. For example, the occurrence of pseudo-prepositional yicuu- *'on'* with -la *'its, their'* (derived from At + $\{^{yiiy}_{yiir}\}$) or -li *'of'* + inanimate noun but not with -yi *'my'* (<== At + gaag), -yire *'their(ani.)'* (<== At + yiir of <+Ani> or <+Ani, -SG> noun), etc. indicates that in deep structures yicuu- occurs only with a formative having a feature matrix $\begin{bmatrix}+Pro\\-Ani\end{bmatrix}$, which excludes all the pronouns but yiiy and yiir with <-Ani>.

4.8.9. *DEMONSTRATIVE ELEMENTS*

4.8.9.1. The demonstrative elements involve those words in which a

bound noun stem is followed by a demonstrative enclitic. In the lexicon, they are specified with <+N>, <+Dm>. By convention, <+Dm> is understood to represent all the features of the demonstrative enclitic that the lexical item carries. For example, demonstrative melee *'this'* (mål- + lee) is specified in <+N>, <+Dm> in the Lexicon, but here <+Dm> represents such features as <+Dm>, <+SP>, <-HR>, <+visible>, <-future>, <-past> and <+SG>. The non-occurrence of demonstrative elements before a demonstrative enclitic in spite of *BR 17* will be handled by a redundancy rule (*RR 6* in 4.14.).

The reasons for treating a certain class of noun stems + demonstrative enclitic as lexical units under the domination of N are that (1) the noun stems are bound, occurring always with a demonstrative enclitic; (2) no attributive phrase or adjective may be inserted between a stem and the enclitic; and (3) in some words, the stem and enclitic are partially fused (e.g. melee <== mål- + lee) or realised as a portmanteau (e.g. yiiyee *'this'* <== yi- + lee).

The demonstrative elements may be subclassified as below.

(1) demonstratives proper

	<+SG>	<-SG>
mål- *type*	melee *'this'*	makaa
	malaa *'that'*	makalaa
	malaay *'that (yonder)'*	makalaay
	melwee *'that (unseen)'*	makawee
yi- *type*	yiiyee *'this'*	yikaa
	yilaa *'that'*	yikalaa
	yilaay *'that (yonder)'*	yikalaay
	yiwee *'that (unseen)'*	yikawee

(2) prepositional demonstratives

	<+SG>	<-SG>
locational	yixaa *'here'*	yikaa *'here(pl)'*
	yixalaa *'there'*	yikalaa *'there(pl)'*
	yixalaay *'over there'*	yikalaay *'over there (pl)'*
	*yixawee	*yikawee
temporal	yixalaa *'today, now'*	yixalakaa *'nowadays'*
	yixawee *'before'*	yixakawee *'old days'*

(3) interrogative demonstratives

	yifaa *'which'*	yikafaa *'which(pl)'*

4.8.9.2. It seems that the stem of the mal- type is related to male *'something'* and that of the yi- type to yiiy *'it (pronoun)'*. The meaning difference between the mal- and yi- types is slight, and native speakers could not easily tell the difference unless the actual situations in which these words appear are presented. But it seems that the meaning of the mal- type is rather indefinite compared to the other type. Thus, the former is close to *'something'* + demonstrative enclitic, and the latter to *'it'* or *'that'* + demonstrative enclitic. Examine the following.

E 273 (a1) Medaa melee?
'What's this?' (when the speaker does not know what it is)

(a2) Medaa yiiyee?
'What's this?' (when the speaker has found a thing that he looked for)

(b1) Yiitey malaay?
'Who is that over there?' (when the speaker sees someone)

(b2) Gė yiitey yilaay?
'And who is that over there?' (when the speaker notices another person appearing)

(c) Yi be xasi-ya makaa? Yaab, xasi-ya yikaa.
'May I have these? No, have these.'

(d1) paaga-li makaa *'a collection containing everything'*

(d2) paaga-li yikaa *'a collection containing only some special part'*

There is no restriction in the function of demonstratives proper as nominals, i.e. they may occur wherever their immediately dominating category (N) occurs, which fact is not the case with locational and temporal demonstratives whose occurrence is restricted to the N which is under the domination of PrepP. The following examples demonstrate various functions of demonstratives proper.

(1) subject of predication

E 274 (a) [Ye be le]$_{Aux}$ [xala-yi /gaag/]$_{PP}$ [yiiyee]$_{Nps}$
this
'This will be my food.'

(b) [Melee]$_{NPs}$ yilaa ye xarėta-li pallege.
fm Pm *end* *big*
'This is very big.'

(2) object of the main verb

E 275 (a) [Yi be]$_{Aux}$ [xasi-ya]$_{VP}$ [makaa]$_{NP}$
carry
'May I have these?'

(b) [Xo]$_{Aux}$ [dipali-ya]$_{VP}$ [yiiyee]$_{NP}$ xaree [yilaa]$_{NP}$ xaree
con con
[yilaay]$_{NP}$
'Do you want this or that or that over there?'

(3) subject and predicate of Identification

E 276 (a) [Yaa-yi /gaag/ ceebul]$_{NPp}$ [melwee]$_{NPs}$
'That (unseen) is my table.'

(b) [Yilaay]$_{NPs}$ melee [yiṁa wee yiṁa-yi /gaag/]$_{NPp}$
fm
'That over there is the house of mine.'

(c) [Bisi-li yiitey]$_{NPp}$ [makalaay]$_{NPs}$
who
'Whose brothers are those over there?'

(d) [Yiiyee]$_{NPp}$ [yaramata wee]$_{NPs}$
'The person is here.'

(e) [yikalaa]$_{NPp}$ [faluya kalaa ye xarėta-li mommaye
very *good*
mė wȯȯ-li Yulidiy]$_{NPs}$
'The very good islands are those.'

(4) head of PrepP

E 277 Ye la mese loxo [bo yilaa]$_{PrepP}$
become
'He came to die because of that.'

(5) attributive nominal

E 278 (a) Xa sa bii diye yiree [-li]$_{At}$ [yilaay]$_{NP}$ la-li teeteye laay.
at *reef*
'You(pl), go down to that in that reef!'

(b) Yiiyee melee babiyoro [-li]$_{At}$ [melwee]$_{NP}$
'Here is the book about that.'

(c) Ye pallege yiree lee mė yiṁȯȯ-li yilaay.
'This tree is bigger than that.'

(d) [Lawu-yire /yiir/]$_{NP}$ [se-male At makalaa]$_{NP}$

'One of them is theirs.'

(6) main verb

E 279 (a) Ye be [yiiyee]$_{PP}$ [yaa-yi /gaag/ tuxu-ya /yiiy/]$_{NPs}$
my *hit-him*

'I will hit him this way.'
(lit. *it will-be this, my hitting him*)

(b) Paaga-li rale gè [ye sa]$_{Aux}$ [yilaa cox]$_{PP}$ [saga-yire /yiir/]$_{NPs}$
all *day* fm *status*

'Every day, their condition was just that.'

Very frequently, demonstratives proper occur as antecedents of embedded sentences (COM) in various syntactic functions illustrated just above. The variety of relations existing between a demonstrative antecedent and the following sentences is the same as that between a non-demonstrative nominal and the following embedded sentences. This will be discussed in 4.9. Examples of demonstrative antecedents follow.

E 280 (a) [Malaa [[ye coolopa wòò-li Yulidiy]$_S$]$_{COM}$]$_{NPs}$ yilaa [luu]$_{NP}$
many *on* fm

'That which there is a lot of on Ulithi is coconuts.'

(b) [Ye]$_{Aux}$ [daxabole]$_{PP}$ [melee[ye be tafaale doxo
desirable *come-back*

tèxtaa "Gajdusek"]$_{COM}$]$_{NPs}$ bo sa yoor tamaaye.
because *sick*

'It is desirable that Dr Gajdusek come back, because there is a sick person.'

(c) [Yilaa [ye feefele]$_{COM}$]$_{NP}$ melee [[Luyisaa]$_{NP}$
woman, elder fm

[yida-la /yiiy/]$_{NP}$]$_S$
name

'That one who is older has the name Luyisaa.'

(d) Yiwee [yiir]$_{NPs}$ [yikawee [re yafyefe yixi]$_{COM}$]$_{NP}$
pulling

'Thus they were those who were pulling up fish.'

(e) Ye [coolopa]$_{PP}$ [yikalaa [ye towase]$_{COM}$]$_{NPs}$ [mè yiṁòò-
many *broken*

[li]$_{At}$ [yikalaa [ye mele diye]$_{COM}$]$_{NP}$]$_{PrepP}$

'There were more of those which were destroyed than those which remained.'

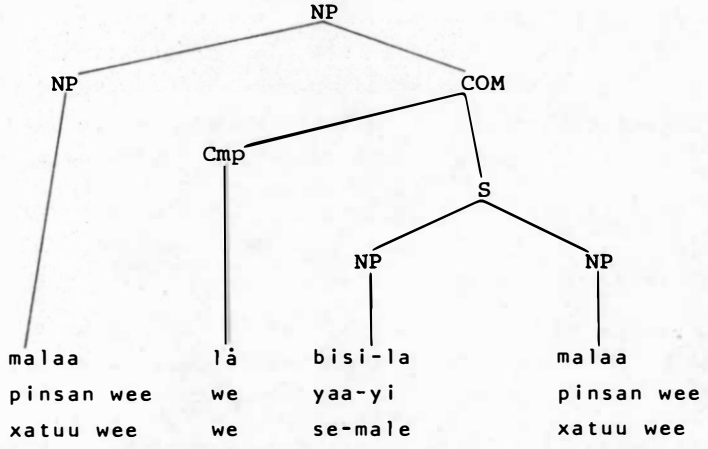
Another kind of construction which is of high frequency in texts is that in which a demonstrative proper and the following noun or noun phrase are appositively juxtaposed on the surface (e.g. malaa bisi-la *'that brother of his'*) (see 4.5.3.). This kind of construction is similar to that in which a pronoun is followed by a noun (e.g. yiiy yaramata laay *'the man over there'*), or a classifier followed by a classified NP (e.g. yaa-yi pinsan *'my pencil'*; se-male xatuu *'a cat'*), or more closely a classified NP followed by a classifier (e.g. pinsan wee yaa-yi *'the pencil of mine'*; xatuu wee se-male *'a cat'*). Note that there are two types of appositive constructions in the above examples.

E 281

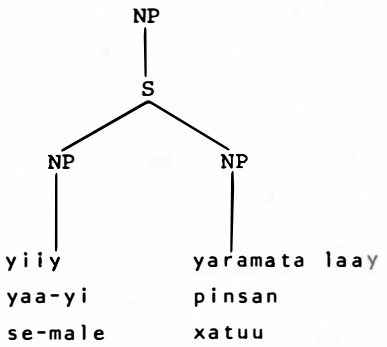
A	B
malaa bisi-la	*bisi-la malaa
*yaramata laay yiiy	yiiy yaramata laay
pinsan wee yaa-yi	yaa-yi pinsan
xatuu wee se-male	se-male xatuu

A problem here is whether A and B are derived from one and the same type of deep structure or whether they have different types of deep structure. Either alternative might be justifiable in some ways. It is tentatively proposed here that A and B have different underlying deep structures, i.e. A involves an embedded sentence which is of the identification type, while B is a nominalised form of an identification sentence, as shown in the following trees.

E 282 A



B



In E 282 A, each final noun phrase will be deleted by a general identity deletion rule (*TRs 13* and *22*) and the complementisers (+Cmp) by *TR 41*. The reason for recognising two different deep structures is that, in addition to the surface difference, the examples given in E 282 B do not allow any embedded S according to the base rules so far formulated, while postulation of an embedded S in the examples in E 281 A contributes to the symmetry in the grammar.

Consider the following.

E 283 NP NP1 NP2

(a) yaramata wee Taxac yida-la *'the man whose name is Taxac'*

(b) pinsan wee yaa-yi (*pinsan wee)

(c) malaa bisi-la (*malaa)

By postulating the starred noun phrases in deep structures, (b) and (c) may be treated in a way parallel to (a). If they are not postulated, the only allowable embedded sentences of the identification type would be those in which NP2 is not the same as NP (antecedent); such a treatment would lack generality. Further evidence to favour the deep structure given in E 282 A is E 284 in which a conjunctive là obligatorily occurs where a demonstrative enclitic is lacking. The fact that là is elsewhere a conjunctive always followed by a sentence leads to the interpretation that là sulu-male and là lawu-yi are embedded sentences.

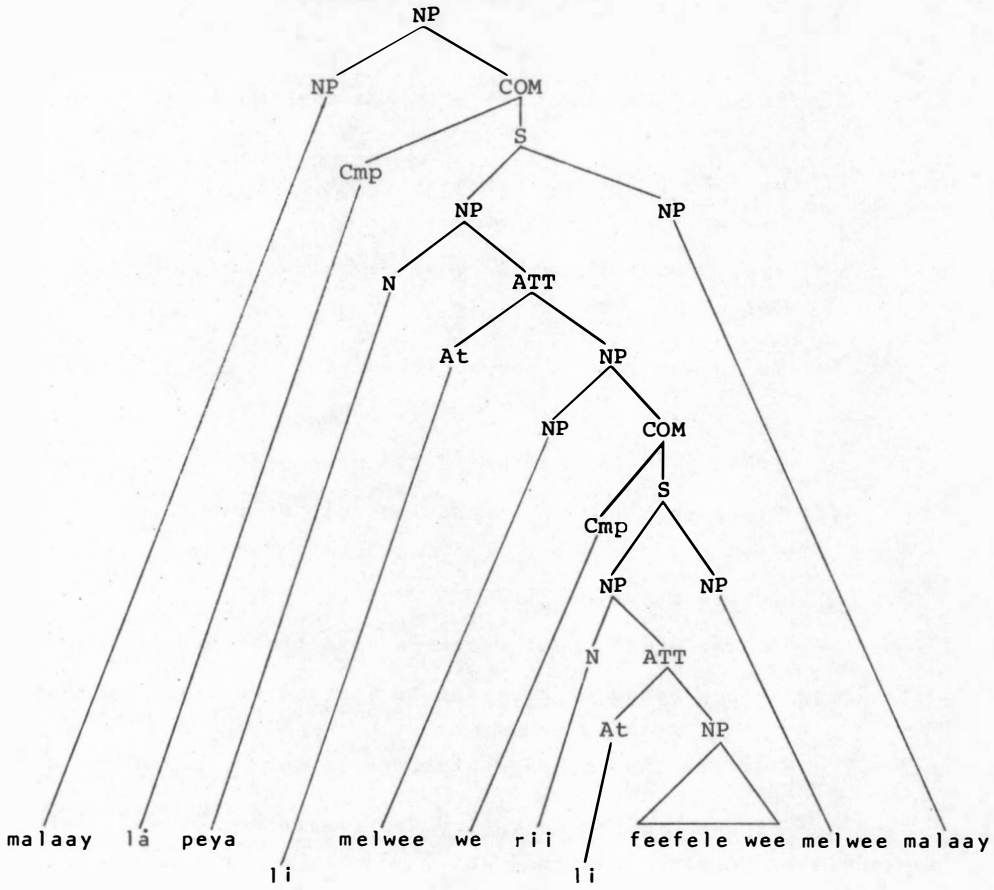
E 284 Yeliwici là sulu-male là lawu-yi yilaa re mele yiree-li sukuun.
child fm *stay at*
'My three children are students.'

On the analogy of E 284, bisi-la, yaa-yi, and se-male in E 281 A may be regarded as embedded sentences in deep structures. Thus, the underlined part of the sentence,

Malaay peya-li melwee rii-li feefele wee melee ye sa towase.
'That grave of the husband of the girl has been destroyed.'

has roughly the following deep structure.

E 285



It must be noted that demonstratives proper in the above constructions occur mostly with the NP in which no demonstrative enclitic is allowed. The subclass of such NP which is the most frequent in occurrence is the attributive construction (e.g. bisi-la *'his brother'*). Another subclass is the numerative construction (e.g. se-male (pese) *'a dog'*). Examine the following.

E 286 (a) [Malaa boxata-yi /gaag/]$_{NP}$ yilaa [Yulidiy]$_{NP}$
home fm

'My home country is Ulithi.'

(b) Ye sa xadi-ya weya [makawee pawWu-la /yiiy/]$_{NP}$ [we
hold *out*

ye mommaye]$_{COM}$

'She held out those pretty hands of hers.'

(c) [Yilaay]$_{NP}$ melwee [se-male senseye]$_{NP}$

'That is the teacher.'

(d) Re sa kakka doxo metameta-li mogoyo mommaye là xala-ca
carry kinds food good which

mè wòò-li [malaa faluya-yire /yiir/]$_{NP}$
from on island

'They brought various good foods for us(incl) from that island of theirs.'

(e) Ye sa wa loxo yiwee ṁiri-la /yiiy/
also younger-brother

'That younger brother of his also went.'

(f) Yiwee sa bii diye Yixnaasiyoo gè ye tay loxo
then dr *but not go*

[yiwee se-male]$_{NPs}$

'Then Ignatio went westward, but the other one did not go.'

(g) Melwee bòòdu-li xiti wee te yoor se-male là ye xagi-ya.
nose octopus who

'As for the octopus' beak, there was no one who ate it.'

The use of two demonstratives proper (melee and yilaa) as focus markers will be discussed in 4.10.

4.8.9.3. The stem of locational demonstratives (see 4.8.9.1.), yixa-, undergoes certain morphophonemic changes when it is followed by a demonstrative enclitic.

1. yixa- + lee ==> yixaa
2. yixa- ==> yi- / __[k...]$_{Dm}$

thus: yixa- + kaa ==> yikaa
yixa- + kalaay ==> yikalaay, etc.

The locational paradigm is defective in that *yixawee and its plural form are missing.

The stem of temporal demonstratives may be set up as yixala-. Morphophonemic changes involved are as follows.

1. yixala- + lee ==> yixalaa
2. yixala- ==> yixa- / __ (ka)wee
thus: e.g. yixala- + wee ==> yixawee

The temporal paradigm is still more defective, since the forms with -laa and -laay are lacking.

Both locational and temporal demonstratives are limited in occurrence to the position dominated by PrepP in deep structures. Examples were given under 4.7., Prepositional Phrases.

4.8.9.4. Interrogative demonstratives consist of the stem yi- and a <+Q> demonstrative enclitic (i.e. faa or kafaa) with a varied range of meaning equivalent to English *'which, what, where'*.

E 287 (a) [Yifaa]$_{NP}$ [se-wo luu kaa là xo dipali-ya]$_{NP}$?
that want
'Which is the one of those coconuts that you want?'

(b) [Yifaa]$_{NP}$ melee [weri-ya-li Tom]$_{NP}$?
fm *see*
'Which is the one that Tom saw?'

(c) [Yifaa]$_{NP}$ [yida-la]$_{NP}$?
'What is his name?'

(d) [Yifaa]$_{NP}$ [yela-la]$_{NP}$?
'What is its length?'

(e) [Yifaa]$_{NP}$ [saga-li malaa dèla-la]$_{NP}$?
condition that colour-its
'What is the colour of that?'

(f) [Yifaa]$_{NP}$ [yiiy Darxos]$_{NP}$?
'Where is Dargos?'

(g) {Yikafaa / Yifaa}$_{NP}$ [yiir tarmale kawee]$_{NP}$?
'Where are those boys?'

(h) [Yifaa]$_{NP}$ [piskaa wee soxo-mu]$_{NP}$?
Cl
'Where is your fishing spear?'

(i) [Yikafaa]$_{NP}$ [waa kawee]$_{NP}$?
'Where are those canoes?'

Interrogative demonstratives are the same in structure as an ordinary noun + a Dm.

E 288 yifaa: babiyoro faa *'which book?'*
yikafaa: babiyoro kafaa *'which books?'*

However, there is a minor point of difference between an interrogative demonstrative and a noun + Dm, i.e. the former does not occur as the NP in an attributive phrase (ATT).

E 289 yiṁa-li yaramata faa *'house of which person?'*
yiṁa-li faluya faa *'house of which island?'*
but: *yiṁa-li yifaa
Cf. yiṁa-li yiiyaa *'house of where?'*
*babiyoro-li yifaa
Cf. babiyoro-li medaa *'book about what?'*

Interrogative demonstratives and demonstratives proper share a common characteristic in that they do not appear as the only member of a prepositional phrase, which is not the case with prepositional demonstratives. On the other hand, interrogative and prepositional demonstratives have some features in common which are not shared by demonstratives proper. That is, the former sets do not occur as the NP in an attributive phrase (ATT), do not occur as either member of an appositive construction (e.g. *[yifaa bisi-la]$_{NP}$, *[yixaa bisi-la]$_{NP}$), i.e. do not undergo nominalisation, and do not function as the antecedent of an embedded sentence.

In spite of the fact that yifaa, yikafaa themselves cannot be prepositions, they may induce responses with prepositional constructions. Compare the following.

E 290 (a) [Yifaa]$_{NP}$ [yida-la]$_{NP}$? *'What's her name?'*
[Mardaa]$_{NP}$ melee [yida-la]$_{NP}$ *'Marda is her name.'*
fm

(b) [Yifaa]$_{NP}$ [yiiy]$_{NP}$? *'Where is she?'*
Ye mele [sukuun]$_{PrepP}$ *'She is staying at school.'*

Like other nominals, yifaa and yikafaa occur as the main verb.

E 291 (a) [Ye sa]$_{Aux}$ [yifaa]$_{PP}$ [yado-li yaa-la riirii melwee ṁega-mu]$_{NP}$?
time *marry* *sister*
'How many days have passed since your sister got married?'

(b) [Ye be]$_{Aux}$ [yikafaa]$_{PP}$ [yiir yeliwici kawee]$_{NP}$?
'Where will be those children?'

After an interrogative demonstrative, a pronoun obligatorily precedes an NP with the feature <+Ani> if that NP has a demonstrative enclitic or is a proper noun (name of a person).

E 292 (a) {Yifaa / Yikafaa} yiir yaramata kawee?
'Where are those people?'
Cf. *{Yifaa / Yikafaa} yaramata kawee?

(b) Yifaa yiiy pese wee ye tamaaye?
'Where is the sick dog?'
Cf. *Yifaa pese wee ye tamaaye?

(c) Yifaa yiiy Darxos?
'Where is Darxos?'
Cf. *Yifaa Darxos?

If, however, an interrogative demonstrative is followed by a <+Ani> NP without a demonstrative enclitic, insertion of a pronoun is optional.

E 293 (a) Yifaa tarṁale?
'Where are boys?'

(b) Yifaa yiir tarṁale?
'Where are those boys?'

Insertion of a pronoun is optional if the NP after an interrogative demonstrative is <-Ani> and has a demonstrative enclitic. A pronoun normally does not appear if there is no Dm.

E 294 (a) Yifaa (yiiy) waa wee?
'Where is the canoe?'

(b) Yikafaa (yiir) piskaa kaa?
Yifaa
'Where are those fishing spears?'

(c) Yikafaa yida-yire?
Yifaa
'What are their names?'
Cf. *Yikafaa yiir yida-yire?

4.8.10. *INTERROGATIVES*

4.8.10.1. Interrogative words yigȧd *'when'* and yiiyaa *'where'* were briefly discussed under 4.7. (Prepositional Phrases), feda- *'how many'* in the section of Numerative Construction of 4.8., and yifaa and yikafaa in the preceding section. Except for feda- which is a numerative stem (+Nus), all these interrogative words plus medaa *'what'* and yiitey *'who'* to be discussed shortly are nominals (+N). These nominal interrogatives may be arranged in terms of their inherent features as in TABLE XII. Grammatical and contextual features may be added to their respective lexical entries.

TABLE XII

NOMINAL INTERROGATIVES

	medaa	yiitey	yiiyaa	yigåd	yifaa & yikafaa
Q	+	+	+	+	+
Dm	-	-	-	-	+
time	-	-	-	+	(±)
place	-	-	+	(-)	(±)
human	-	+	(-)	(-)	(-)

4.8.10.2. **Medaa** and **yiitey** constitute the closest related subset from a syntactic point of view. Differing from **yigåd** and **yiiyaa**, they never become the only constituent of PrepP. They also differ from **yifaa** and **yikafaa** in that no demonstrative feature is present in them and no demonstrative enclitic may follow. Non-occurrence of a demonstrative enclitic after **medaa** and **yiitey** is an indicator of structural difference between Ulithian and Trukese (e.g. Benton 1968:141). One syntactic feature shared by all the interrogatives in TABLE XII is that they never act as the head of an attributive phrase (e.g. ***medaa + ATT**, ***yiiyaa + ATT**). See *RR 6* in 4.14.

Except for the above points, there is no other significant restriction in the occurrence of **medaa** and **yiitey**. For their various functions, observe the examples below.

E 295 subject of Predication

(a) Medaa melee ye buu doxo mė yiree-li fedexe wee?
war
'What is the result of the war?'

(b) Yiitey melee ye kakka doxo yaa-ca babiyoro?
fm *carry* Cl-*our*
'Who brought our(incl) letters?'

E 296 subject or predicate of Identification

(a) [Medaa]$_{NP}$ melee [yaa-mu liluwale]$_{NP}$ yiree-li melwee?
fm *your thinking* *at* *that*
'What is your thinking about it?'

(b) [Yiitey]$_{NP}$ melee [yaa-mu senseye]$_{NP}$?
fm
'Who is your teacher?'

(c) [Medaa]$_{NP}$ [yiiy melaay]$_{NP}$?

'What is that over there?'

(d) [Xeel]$_{NP}$ [yiitey]$_{NP}$?

'Who are you?'

(e) [Yiitey]$_{NP}$ [re-còò kalaay ruwė-male là re dadare doxo]$_{NP}$?
people who walking

'Who are those people coming this way?'

E 297 object

(a) Xa dabe-ya doxo [medaa]$_{NP}$?
accompany

'What did you(pl) come by?'

(b) [Medaa]$_{NP}$ melee Tom ye xasi-ya gė ye sa weri-ya Ben?
fm *carry* *and* *see*

'What did Tom see Ben with?'

(c) Ye lli-yVre [yiitey]$_{NP}$?

'He killed whom?'

E 298 attributive

(a) Lulu-li$_{At}$ [medaa]$_{NP}$ melee ?

(lit. *shade of what is-this?*)

(b) Ye sa masėrė faa-li$_{At}$ [medaa]$_{NP}$?
sleep

'Under what did he sleep?'

(c) Yaa-li$_{At}$ [yiitey]$_{NP}$ salapiya melee xo sa pėra-ya?
money fm *steal*

'Whose money did you steal?'

(d) Yiṁa-yire$_{At}$ [yiitey]$_{NP}$ makalaa?

'Whose houses are they?'

(e) [Yiitey]$_{NP}$ melee xo sa faga gali-ya babiyoro?
fm

'Whom did you give the book to?'

It should be noticed in the above examples that most frequently medaa and yiitey are placed in the initial position of a sentence, in which case very often the focus marker melee follows them. The other interrogatives behave similarly. As a result of such focus transformations, syntactic ambiguity may occasionally arise on the surface. For

example, E 299 is a sentence which has two deep structures as in E 300.

E 299 Yiitey melee ye lli-yVre?
kill-them
(a) *'Who killed them?'*
(b) *'Whom(pl) did he kill?'*

E 300 (a) <== Q Emp + yiitey Pm lli Os yiir
melee <+SG>

(b) <== Q Emp + yiiy Pm lli Os yiitey
melee <-SG>

When an Identification sentence, in which a subject pronoun and a predicate interrogative yiitey or medaa occur, is not focussed, the normal order is pronoun + interrogative (*TR 20*).

E 301 yiir yiitey?
'Who are they?'

If, however, such a sentence has the constituent Emp in deep structures, the order is reversed as in the case of other nouns.

E 302 Yiitey melee yiir?

Only medaa may appear in the *classified* position in an appositive construction.

E 303 (a) [Se-male]$_{NUC}$ [medaa]$_{NP}$ yiiy yaramata wee?
'Who is that (invisible) person?'

(b) [Se-xaye]$_{NUC}$ [medaa]$_{NP}$ [makalaay]$_{NP}$?
(lit. *one-tree-like-object of-what is-that?*)

(c) Yaa-la [medaa]$_{NP}$ [yiiyee]$_{NP}$?
Cl
(lit. *his what is-this?*)

Benton (1968:136) describes two interrogatives in Trukese which have no counterparts in Ulithian, i.e. Tr. /menni/ *'which'* and Tr. /pwata/ *'why'*. The former meaning is expressed in Ulithian by demonstrative suffixes faa or kafaa as already indicated (e.g. yiree kafaa *'which trees?'*) and the latter meaning by bo medaa *'for what'* or yiree-li medaa *'for what'* or medaa...yiiyage if medaa is focussed.

E 304 (a) Xo tagi [{bo / yiree-li} medaa]$_{PrepP}$?
cry
'What do you cry for?'

(b) Medaa melee xo la ssogo gali-yeyi [yiiyage]$_{PrepP}$?
become mad to-me (anaph)
'Why should you be so angry at me?'

(c) Medaa melee xo buu doxo [yixaa]$_{PrepP}$ [yiiyage]$_{PrepP}$?
come here
'What did you come here for?'

For the focus transformation, see *TR 11*, and for the anaphoric yiiyage see 4.7.9. and 4.11.3.

Medaa occurs in adjective relation to the preceding noun. The meaning difference existing between medaa in an attributive phrase and that in an adjective construction may be noticed rather clearly in response.

E 305 (a) Meta-li yiṁa-li medaa melee?
'In front of what house is this?'
response: yiṁa-li karosiin *'house for kerosene storage'*
or: yiṁa-li pese *'dog house'*

(b) Meta-li yiṁa medaa melee?
'In front of what house is this?'
response: yiṁa semen *'house made of cement'*
or: yiṁa kobraa *'house made of iron'*

In E 305 (a), medaa refers to *purpose* or *usage* of yiṁa, but in E 305 (b) it refers to the *substance* that yiṁa is made of. Adjectivisation will be discussed in 4.10.

4.8.10.3. As stated elsewhere, yiiyaa *'where?'* is a nominal (+N) with the feature <+place> occurring mostly under the domination of PrepP. Being a nominal, it may also appear as the NP in an attributive phrase, though it cannot act as a subject or an object unless it is combined with a prefix re- *'person'* (i.e. re-yiiyaa *'people from where'*).

E 306 (a) Xo be la duuduu [yiiyaa]$_{PrepP}$?
go bathe
'Where are you going to bathe?'

(b) Senseye -li [yiiyaa]$_{NP}$ [yiiy malaay]$_{NP}$?
(lit. *teacher of where is-that-man-over-there*)

(c) Ye buu doxo [mė yiiyaa]$_{PrepP}$ [yiiy dempoo laa]$_{NPs}$?
from *that dispatch*
'Where did the dispatch come from?'

(d) [Se-male]$_{NUC}$ [re-yiiyaa]$_{NP}$ [fefeele wee]$_{NP}$?
'Where is the woman from?'

If yiiyaa is focussed and preposed, an anaphoric yiiyage fills the position left open by yiiyaa.

E 307 (a) Yiiyaa melee ye mele melwee bisi-la [yiiyage]$_{PrepP}$?
'Where does the brother of his live?'

(b) Yiiyaa melee ye yegaage [yiiyage]$_{PrepP}$ [lalow]$_{PrepP}$?
'Where did he work yesterday?'

(c) Yiiyaa melee pese wee ye lli-ya male wee [mė yiiyage]$_{PrepP}$?
'Where did the dog kill the bird?'

4.8.10.4. Yigàd *'when'* is a nominal with the feature <+time>. It behaves much the same way as yiiyaa, occurring mostly under the domination of PrepP and occasionally as the NP in an attributive phrase, but never as a subject or object. As in yiiyaa, it normally takes the sentence initial position with the focus marker melee following. In case of yigàd, however, anaphoric yiiyage normally does not appear though it is grammatically allowable if mė *'from'* is not preceding. If mė precedes yigàd in the deep structure, yiiyage may not replace yigàd if the latter is focussed and preposed. Observe the examples below.

E 308 (a) Yigàd melee sa fedexe Tom mė Ben wòò-li Fadalay (yiiyage)?
fight and on
'When did Tom and Ben fight on Fadalay?'

(b) Yigàd melee xo loxo yixalaay (yiiyage)?
go there
'When did you go there?'

(c) Xo sa tamaaye yigàd?
sick
'When were you sick?'

(d) Ye tamaaye mė yigàd?
'Since when has he been sick?'
Cf. *yigàd melee ye tamaaye mė yiiyage?
*mė yigàd melee ye tamaaye mė yiiyage?
but: Mė yigàd melee ye tamaaye?

Occurrence of yigàd as the NP in an attributive phrase is illustrated below.

E 309 (a) Babiyoro-li yigàd melee?
'What age is this book about?'

(b) La-li yigàd melee ye be buu doxo baarkoo wee?
in ship

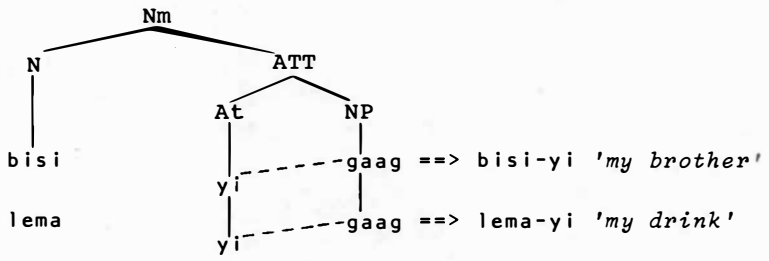
'When (lit. *within when*) *will the ship come in?'*
Cf. response: La-li walsuu. *'Within tomorrow.'*

(c) Ye be buu doxo yiree-li yigàd?
at, in
'When (lit. *in when*) *is he coming?'*
Cf. response: Yiree-li se-wo wiik. *'In a week.'*

4.8.11. *POSSESSIVE CLASSIFIERS*

Possession is expressed by the construction consisting of a special class of nominals followed by an attributive phrase (ATT). The possessive construction implies the presence of the node Nm as indicated in *BR 18*.

E 310



E 311 (a) Bisi-yi yaramata laa.
'That person is my brother.'

(b) Lema-yi cale laa.
'That water is for me to drink.'
(lit. *that water is my drink*)

In spite of E 310 and E 311, traditionally lema- is called a classifier but bisi- is not. It appears that there is some syntactic relevance for the traditional differentiation. For example, consider E 312.

E 312 (a) *[Bisi-yi yaramata]$_{NP}$ [melee]$_{NP}$
'This is a man who is my brother.'

(b) [Lema-yi cale]$_{NP}$ [melee]$_{NP}$
'This is my water to drink.'

That is, bisi- may not undergo appositive nominalisation, while lema- may. It is clear, however, that the nominalisation possibility cannot be the sole criterion to distinguish classifier from non-classifier possessives, since for example weri-ya *'see it'* is not a classifier in the following nominalised structure.

E 313 [Weri-ya-yi pese]$_{NP}$ [melee]$_{NP}$

'This is the dog I saw.'

Thus, all classifiers may be nominalised as in E 312 (b), but not all appositively nominalised forms involve classifiers.

In defining the class of possessive classifiers, E 314 looks like a border-line case.

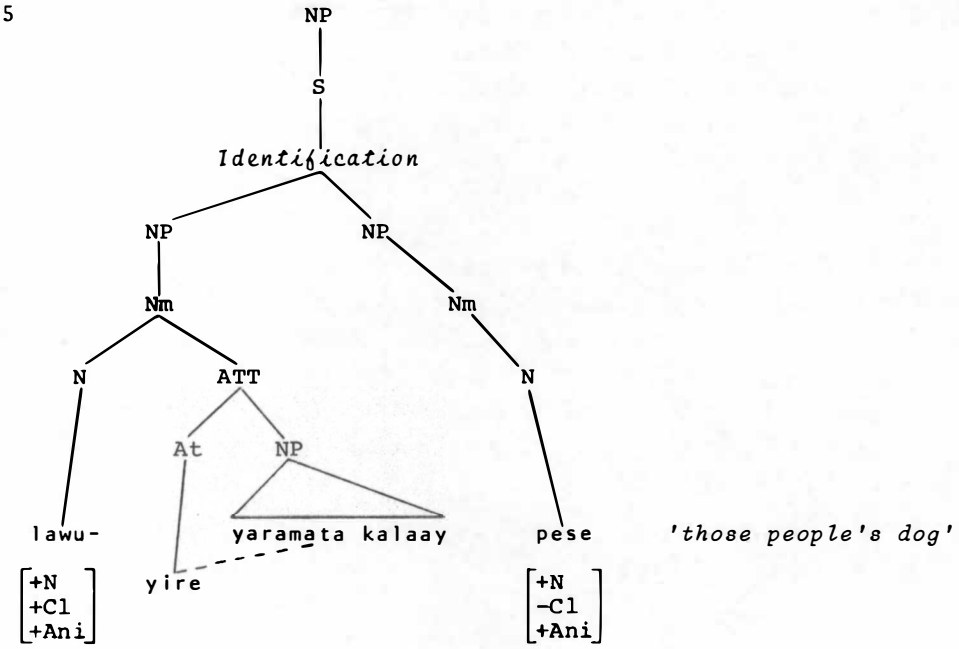
E 314 [Mata-yi {pese / yeliwici / soxo / piipiya}]$_{NP}$ [melee]$_{NP}$

'This {*dog* / *child* / *stick* / *goggle*} *acts as my eye.'*

In E 314, no feature is shared by mata and the following set of nouns except that piipiya is slightly related to mata in terms of certain features like *'seeing'* or *'eye'*. Most of the other body-part nominals behave in a similar way as mata. These nominals do not classify themselves (e.g. *mata-yi mata *'my eye'*, *påwWu-mu påwWu *'your hand'*). Structurally, E 314 is parallel to E 312 (b), but it is hardly believable that pese *'dog'* belongs to the class mata. Besides, the relation existing between mata-yi and piipiya is not exactly the same as that existing between lema and cale for example, since in the former the implication is that the speaker cannot see anything without piipiya as in mata-yi pese, etc. and the feature agreement is only secondary and accidental, while in the latter lema and its co-occurrable members such as cale, koofiy, melik *'milk'*, tamaaxoo *'tobacco'*, etc. can be definable in a definite semantic feature <+drinkable or smokable>. In the following, therefore, mata, etc. will be excluded from the class of classifiers, which in turn includes only those nominals which behave as a lexical class having one or more members definable in terms of a definite semantic feature. The member or members may be called *the classified*.

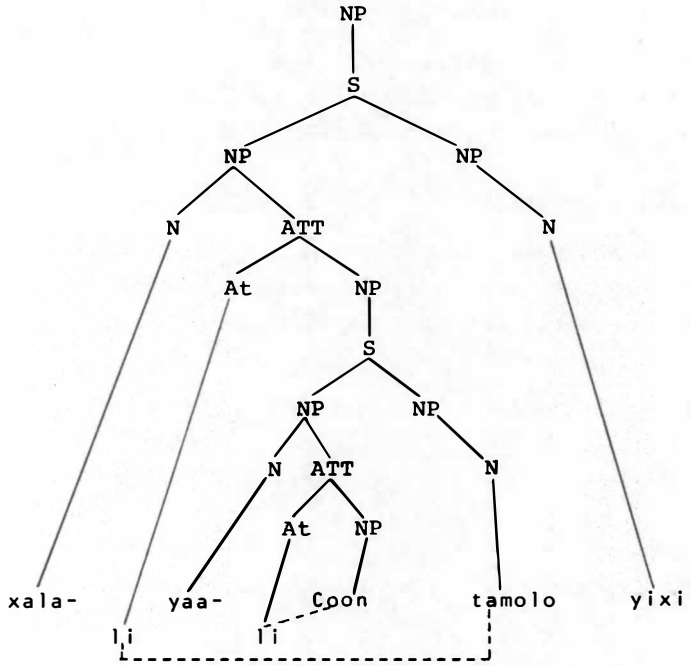
A possessive classifier construction enters into an appositive relation with the classified, the derivative source of which is the corresponding Identification sentence.

E 315



Since the node ATT in E 315 dominates NP which may be expandable recursively, it is often the case that a classifier is separated from the classified by another classifier-classified construction. For example, xala-li yaa-li Coon tamolo yixi *'John's chief's fish (to eat)'* has roughly the following structure.

E 316



In E 316, xala and yixi are in classifier-classified relation, yaa-li Coon tamolo being attributive to xala. On the other hand, yaa- and tamolo are in classifier-classified relation, Coon being attributive to yaa-. E 316 is an example of nested constructions (Chomsky 1965:12). Although the base rules may generate repeatedly nested constructions which are all grammatical, more than one nesting will certainly lead to unacceptability.

As already indicated, the relation between a classifier and the classified is that of semantic class-member on the lexical level, one classifier having one or more members. Many classifiers may classify themselves, but even in this case it should be assumed that a classifier and the classified are in a class-member relation, since the meaning (or semantic range) of the classifier is not the same as that of the classified.

E 317 (a) yiṁa-la yiṁa *'his house'* (lit. *his shelter house*)
<+Cl> <-Cl>

yiṁa-la *'his shelter'*
<+Cl>

waa-yire waa *'their canoe'* (lit. *their vehicle, canoe*)
<+Cl> <-Cl>

waa-yire *'their vehicle'*
<+Cl>

Many classifiers are bound, and they never classify themselves.

E 318 (a) *lema-ca lema *'our(incl) drink'*
(b) *xala-mami xala *'our(excl) cooked food'*
(c) *tama-yi tama *'my honourable father'*

INVENTORY OF <+Cl> NOMINALS

The list below includes all <+Cl> nominals in my data. Examples of the nominals with which the classifier commonly co-occurs are also given. Semantic features are not specified.

boxata	*'home'*	:	boxata	*'home village'*
calu-	*'water source'*	:	cale	*'water'*
cuwu	*'ring'*	:	rig	*'ring'*
dèègècè	*'uninhabited island'*	:	faluya	*'island'*
fala	*'men's house'*	:	fala	*'men's house'*
faluya	*'island'*	:	faluya	*'island'*
fiyaye-	*'wrung object'*	:	coo	*'copra'*

gudė- *'chewing object'* : faca *'pandanus fruit'*

lawu- *'child, property intimately associated with person'*

fòtoxuraaf *'photograph'*	liyooso *'toy'*
moniyan *'devil'*	pakka *'gun'*
pese *'dog'*	pixi *'ball'*

laxe- *'bracelet'* : yawu *'string'*

lema- *'drinkable or smokable object'*

bulu *'chewing gum'*	cale *'water'*
koofiy *'coffee'*	luu *'coconut'*
suukar *'sugar'*	tamaaxoo *'tobacco'*

libe *'grave-object'* : libe *'hole in the ground'*

liliya- *'place'* : ciiyaa *'chair'*, ttoo *'canoe seat'*

magaaxu *'clothes'* : maggaxu *'clothes'*, saac *'shirts'*

mare *'lei, encircling object'* : marmara *'lei'*, yara *'a kind of grass for lei'*

paa- *'bait'* : karbowo *'beef'*, pėraase *'rice'*, yixi *'fish'*

sila- *'honorific female,mother'* : naanaa *'mother'*, repsece *'foreigner'*

soxo *'long-slender object'*

bobawe *'bamboo'*	payep *'pipe'*
piskaa *'fishing spear'*	soxo *'stick'*
yiree *'wood'*	

tama- *'father, honorific (male)'*

taataa *'father'*	repsece *'foreigner'*

waa *'vehicle'*

baarkoo *'ship'*	raata *'bicycle'*
waa *'canoe'*	wayele *'plane'*
tootobay *'scooter'*	

xala- *'cooked food'*

lufidi *'poi'*	màyi *'breadfruit'*
mogoyo *'food'*	wucu *'banana'*
yixi *'fish'*	

xapale *'loin-cloth'*

maciya *'lavalava for the chief'*	xapale *'clothes'*

xapede- *'oil for anointing'*

loyYo *'perfume'*	tikkaa *'copra oil'*

xatama *'door'*

window *'window'*	xatama *'door'*

xiya-	*'mat for sleeping'*	
	cobo *'mat'*	xixii *'mat'*
	yilawala *'bed'*	
xocaa	*'food to be eaten raw'*	
	sasimii *'sasimi'*	wolo *'turtle'*
	yixi *'fish'*	
xolo-	*'object caught'*	
	male *'bird'*	yixi *'fish'*
xota-	*'covering object'*	
	saac *'shirts'*	sukiifi *'sheet'*
	xota-li lamo *'mosquito net'*	
yaa-	*'general object'*	
	bawu *'fishing pole'*	cayèlafaca *'hat'*
	dewusu *'god'*	pinsan *'pencil'*
	sare *'big knife'*	tomtom *'harmonica'*
	xaluru *'umbrella'*	xoomaa *'rubber'*
yiṁa	*'shelter'*	
	sukuun *'school'*	yiṁa *'house'*
yulèèga	*'pillow'*	
	fase *'stone'*	tabo yiree *'a piece of wood'*
	yulèèga *'pillow'*	

There are many nouns with multiple classifiers. Since classifiers are lexical items with independent meanings, selection of different possessive classifiers changes the meanings of classifier-classified constructions.

E 319 (a) lawu-yi yixi *'my fish that I am keeping'*
xala-yi yixi *'my cooked fish food'*
xocaa-yi yixi *'my raw fish food'*
xolo-yi yixi *'my fish that I caught'*

(b) xala-yi màyi *'my cooked breadfruit'*
yaa-yi màyi *'my breadfruit tree'*

(c) yaa-li Darxos tamaaxoo *'tobacco owned or planted by Darxos'*
lema-li Darxos tamaaxoo *'Darxos' smoking tobacco'*

As already indicated (4.8.6.), a few nouns with <-possessive> and <-Cl> that may occur with an attributive phrase (ATT) also occur with possessive classifiers with changed meanings. This set of nouns is characterised by *referential* meaning when occurring with an ATT.

E 320 (a) kaxoolo-yi *'coffin that will contain me'*
yaa-yi kaxoolo *'my box, coffin owned by me'*

(b) xulė-yi *'song about me'*
yaa-yi xulė *'my song'*

(c) liluwale-yi *'thought concerning me'*
yaa-yi liluwale *'my thought'*

(d) liyooso-yi *'statue of me'*
{yaa-yi / lawu-yi} liyooso *'statue owned by me'*

4.9. COMPLEMENT CONSTRUCTION (COM)

4.9.1. *CONSTITUENT STRUCTURE*

BR 22 COM ⟶ Cmp S

LEXICON

bo *'as, that'* +Cmp, $[-NP_1[\_\_\ X\ NP_1\ Y]_{COM}]$
là *'as, that'* +Cmp
we *'as, that'* +Cmp, +past, -visible

4.9.2. *GENERAL*

BR 9 and BR 15 each contain a category COM as in:

BR 9 VP ⟶ VB (NP) (COM)
BR 15 NP ⟶ NP (COM)

BR 22 expands COM into a complementiser (Cmp) followed by a sentence (S). The COM in BR 9 may be called the verb phrase complement and that in BR 15 the noun phrase complement. The dual introduction of COM into base rules has been influenced by Rosenbaum 1967 (103-118) in which it is claimed that the theory of English syntax contains at least two base rules introducing sentences, one immediately dominated by NP and the other by VP. It seems that Rosenbaum's claim for English is adequate in the description of Ulithian structures, so far as the dual introduction of COM is concerned. There are however several points in which I do not follow Rosenbaum 1967 and Jacobs and Rosenbaum 1968. Only two points are mentioned below.

(1) Jacobs and Rosenbaum (1968:50 and *passim*) introduce two Ss under the domination of NP.

$$NP \longrightarrow \left\{ \begin{matrix} NP & S \\ (ART) & N\ (S) \end{matrix} \right\}$$

The upper S indicates a relative clause, NP being the antecedent, while the second S indicates the structure of a noun phrase complement. In

the case of Ulithian, however, no significant formal difference has been noticed between a relative clause and a noun phrase "complement" except that Cmp bo does not introduce a relative clause and that an identical deletion (identity between an antecedent and an item in the embedded clause) takes place in a relative clause but not in a noun phrase "complement" on the surface. Since the non-occurrence of bo before a relative clause can simply be specified in the Lexicon, and the identical deletion can be effected by general deletion rules (*TR*s *13*, *21* and *22*), there is no need to differentiate the two constructions in the categorial component. Besides, as will be seen later, identity deletions are also noticeable in a subtype of verb phrase complements. In this study, therefore, the two sentences in E 321 are not distinguished in terms of the NP constituent structure.

E 321 (a) relative clause

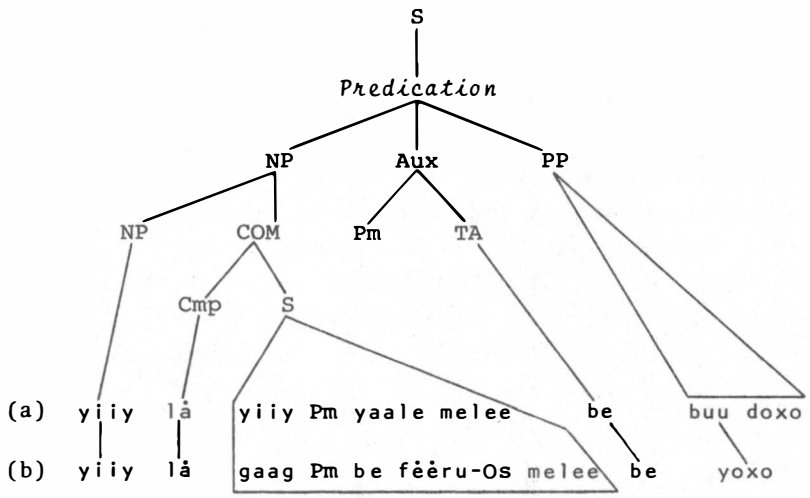
Ye be buu doxo lå ye yaali melee.
who own this
'The one who owns this will come.'

(b) noun phrase "complement"

Ye be yoxo lå yi be fèèru-ya melee.
that I will do this
'It is possible that I will do this.'

The deep structure underlying E 321 (a) and (b) is of the following shape.

E 322



In the following, Jacobs and Rosenbaum's relative clauses and noun phrase complements and these are further subdivided into the relative (clause) type (e.g. E 321 (a)) and the conjunctive (clause) type (e.g.

E 321 (b)).

(2) Jacobs and Rosenbaum (1964) introduce complementisers in English (e.g. *that, for...to, ('s)...ing*) through transformation. In Ulithian, however, I have set a lexical category Cmp to introduce complementisers directly from the base, because selection of different complementisers changes the meanings of sentences.

E 323 Lefeecixi kawee re sa fèèru-ya {(a) bo / (b) lå / (c) we} re be le ddare.

'Those girls {(a) *tried to run(away).'* / (b) *planned to run(away).'* / (c) *were ready to run(away).'*

The framework of complement constructions for the discussion in this section is summarised as below.

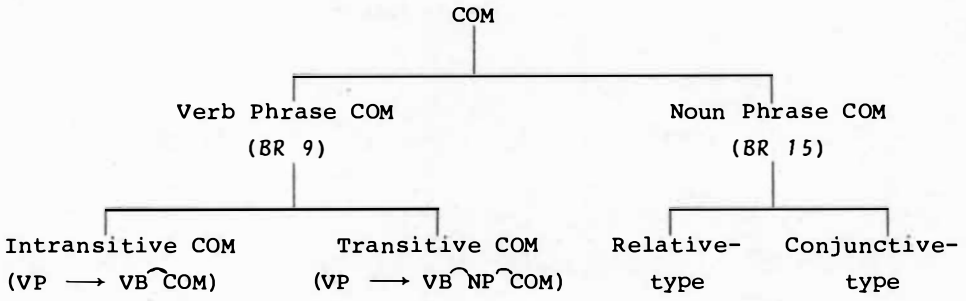


FIGURE 10

COMPLEMENT CONSTRUCTIONS

It should be noted that only a limited set of verbs may occur with a verb phrase complement. Verbs which may occur with two objects (e.g. galle- *'to give'*) cannot appear with a verb phrase complement. Thus such a structure as VB⌢NP⌢COM (see BR 10) actually does not occur - only VB⌢COM does.

4.9.3. *VERB PHRASE COMPLEMENTS*

The two subtypes are intransitive and transitive complements. The former is characterised by intransitive and the latter by transitive main verbs. The special subclass of verbs which may occur with COM are to be specified in the lexicon with [+__COM] (e.g. sèrè *'to say'*, rogrogo *'to hear'*, dipali *'to want'*, wedi *'to wait'*). Cmp bo frequently

has "quotative" meaning, in particular, when it occurs with intransitive verbs. Examples of the two subtypes follow.

E 324 intransitive complements

(a) Ye sa [kaya]$_{PP}$ [gali-yeyi]$_{PrepP}$ [bo /yiiy/ purpuru]$_{COM}$
tell *to-me* *(it)* *lizard spec.*
'He told me that it was a green lizard.'

(b) Re sa [ttawulu]$_{PP}$ [bo te-kamudiidiya se yalapa yiiyee]$_{COM}$
shout *very pretty* *way* *this*
'They shouted, "What a beautiful road it is!"'

(c) Yi [rogrogo]$_{PP}$ [bo Tom ye wa fedexe]$_{COM}$
'I heard that Tom fought again.'

(d) Ye sa [metɛ̀xɛ̀]$_{PP}$ [lå ye be suu logo la-li yalapa wee]$_{COM}$
be-afraid *stand in*
'He was afraid that he would stand in the road.'

E 325 transitive complements

(a) Re sa [dipali-ya]$_{VB}$ [Lamaroxoy]$_{NP}$ [bo ye be mele bo
want *live as*
yaa-yire kuwin]$_{COM}$
'They want Lamaraxoy to be their queen.'

(b) Ye sa [kassiya-yVre]$_{VB}$ [paaga-li yaramata]$_{NP}$ [bo xaree
ask *all* *person* *by-any-chance*
re be tepugi-ya /yiiy/]$_{COM}$
help
'He asked all the people if they could help him.'

(c) Feefele wee ye te [dipali-yVre]$_{VB}$ [re-cɔ̀ɔ̀ kawee]$_{NP}$ [bo re
people
be maxala]$_{COM}$
divorce
'The woman did not want these people to get divorced.'

(d) Paaga-li yaramata gɛ̀ re sa [wewedi-ya]$_{VB}$ [tamolo wee]
all *waiting*
[lå ye be kapatapata]$_{COM}$
talk
'All the people were waiting for the chief to talk.'

(e) Yi be le la [makaade-ya]$_{VB}$ [yaramata laay]$_{NP}$ [bo ye
go *request*

be dabe-yeyi]$_{COM}$
follow

'I am going to ask him to follow me.'

(f) Re sa [xula-ya]$_{VB}$ [paaga-li suukara-li tottolo]$_{NP}$ [we ye

sa lèbaaxili la-li tuutuu wee yaa-la]$_{COM}$
be-hidden *in* *bag* *hers*

'They knew that all candies in the land were hidden in her bag.'

Note in E 325 that the subject of the sentence dominated by COM is in most cases the same as the object NP in the main sentence, the former being deleted.

4.9.4. *RELATIVE TYPE NOUN PHRASE COMPLEMENTS*

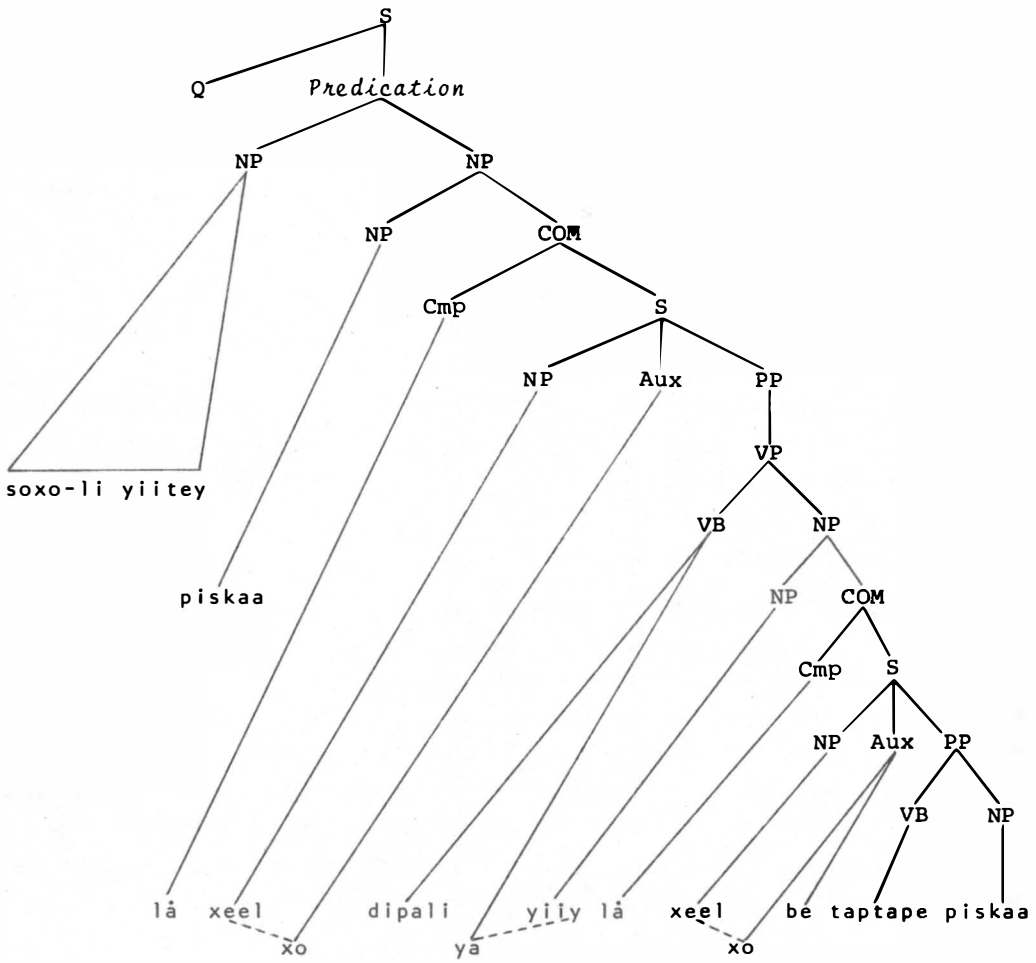
This type of complement, commonly known as an embedded sentence, is of high frequency of occurrence in texts. It is distinguished from verb phrase complements in being dominated by NP, and from the conjunctive type in having an antecedent which has a reflex (of identical reference) in the embedded sentence. The reflex of the antecedent is obligatorily deleted on the surface by the general deletion transformation. The reflect of identical reference of an antecedent in the deep structure appears not only in the main embedded sentence of the COM but occasionally in a more deeply embedded sentence. Consider the sentence in E 326 in which the antecedent piskaa *'fishing spear'* is the object not of the verb (dipali *'to want'*) of the main embedded sentence but of taptape *'to use, to need'* which is the verb of the sentence most deeply embedded.

E 326 [Soxo-li yiitey]$_{NP}$ [[piskaa]$_{NP}$ [là xo dipali-ya (là)
Cl *who*

xo be taptape]$_{COM}$]$_{NP}$

'Whose spear do you want to use?'
(lit. *stick-like-object-of whom is-the-spear that you want-it that you will use?*)

Deep Structure P-marker



There are sentences in which no apparent antecedent is observable, but only a complement appears. Structurally, some of them are to be classed as the relative type and the others as the conjunctive type. Examples of the first type follow.

E 327 (a) [Ye be]$_{Aux}$ [babiyoro faa]$_{PP}$ [lå xo dipali-ya]$_{COM}$]$_{NPs}$?

'Which book do you want?'

(b) [Yegaage]$_{NP}$ [[lå ye wàårese]$_{COM}$]$_{NPs}$

'What is hard is work.'

(c) [Ye te]$_{Aux}$ [yoor]$_{PP}$ [mè yiree-yire]$_{PrepP}$ [lå yeliwici-li sukuun]$_{NPs}$

'There is none among them who is a student.'

(d) [[Là ṁale]$_{COM}$]$_{NP}$ [ye te]$_{Aux}$ [ma mmala]$_{PP}$ [[bo re be te ma
possible

kakka yaa-yire faga yixi gali-ya]$_{COM}$]$_{NP}$
gift fish to him

'As for men, they must carry their fish-gift to him.'

It is proposed that the hole in the antecedent position in each sentence in E 327 be filled in deep structures by a 3rd per. sg. or pl. pronoun. Whether it is singular or plural is predixtable by the context. In E 327 (a-c), the deleted pronoun is yiiy (sg.) since the related Pm is ye (sg.), but in E 327 (d), it is yiir (pl.) because the Pm is re (note that the related Pm is not ye in ye te ma mmala... but re in bo re be te ma...). The reason for postulating deep structure pronouns is obvious, since the measure will account for various otherwise puzzling questions. For example, it would be somewhat complicated to derive COM without the preceding NP in the base rules, since one of the most important categories, NP, would have to be optional in *BR 15*. Secondly, it would not be easy to formulate agreement between Cmp + S and the related Pm or Os without an antecedent, because in some cases Cmp + S agrees with ye (e.g. E 327 (a)) and in others with re (e.g. E 327 (d)). Thirdly, the postulation of a deep structure pronoun will not yield any semantic difference. Fourthly, the proposed treatment contributes to the symmetry of structure.

E 328 Ye be babiyoro faa [/yiiy/]$_{NP}$ là xo dipali-ya?

Ye sa feda-male [male]$_{NP}$ là xo sa lli?
bird

'How many birds did you kill?'

Lastly, examples are available in which the deep structure pronoun antecedent remains on the surface when the pronoun is focussed, which fact supports the proposed treatment. Observe the underlined part in the following sentence.

E 329 Si be sėrė bo yiiy là ṁòòl buu doxo wòò-li Yulidiy
say *first* *on*

mė yiree-li re-Yurop yilaa te yoor là ye xula-ya.
from *Europeans* fm *not exist* *know*

'We may say that as regards the one who first came to Ulithi from Europe, there is no one who knows.'

There are several kinds of relative type complements which may be distinguished according to which part of the embedded sentence is to be deleted by virtue of its identity with the antecedent. (// indicates the place where an item is deleted.)

(1) subject of Predication

E 330 (a) Ye sa tayikkofo [paabiya wee]$_{NP}$ [we // ye mommaye
bad pig the good

rale kawee]$_{COM}$
old days

'The pig which was formerly good has turned out bad.'

(b) [Lawu-yi]$_{NP}$ [pese-li Saapan kawee]$_{NP}$ [we // re bbece]$_{COM}$
white

'Those Japanese dogs which are white are mine.'

(c) Yi weri-ya [se-male ṁale]$_{NP}$ [we // ye falfala waa]$_{COM}$
cut

'I saw a man who was making a canoe.'

(d) [Yiiy]$_{NP}$ [se-male yeliwici-li sukuun]$_{NP}$ [lå // ye mommaye]$_{COM}$

'He is a good student.'

(e) Re kȯȯkomo la-li [molalulu]$_{NP}$ [lå // ye mmade]$_{COM}$
play river-like ditch shallow

'They are playing in a shallow river.'

(f) Ye coolopa [tarṁale pääcixcixi]$_{NP}$ [lå // re dipali-ya
many boy small

re be la dulu]$_{COM}$
go torch

'There are many small boys who like to fish by torchlight.'

(g) [[Yaramata-yi]$_{NP}$ [lå // re sa loxo Xuwam]$_{COM}$]$_{NP}$ melee
relative fm

re sa mese.

'My relative who had gone to Guam died.'

(h) Yi xula-ya lå te yoor [[/yiiy/]$_{NP}$ [lå // ye be buu weya
know-it that exist go out

yiiyage]$_{COM}$]$_{NP}$
there

'I knew that nobody would come out there.'

(i) Xa madare bo xa be ṁeri-ya yiṁa-li Suutumil bo
disperse so-that *search* *because*
[[/yiiy/]$_{NP}$ [lå // ye ta mele yiree-li yiṁa-la]$_{COM}$]$_{NP}$ gė
at fm
yiiy melee ye fedexe.

'You(pl), disperse! so that you will investigate houses in the village of Suutumil, because he who does not stay at home is the one who fought.'

(2) subject of Identification

E 331 (a) [Yilaay]$_{NP}$ [[yiṁa]$_{NP}$ [lå yiṁa-li Peyacam //]$_{COM}$]$_{NP}$
that
'That's Peyacam's house.'

(b) [[Yegaage]$_{NP}$ [lå yaa-li Tom //]$_{COM}$]$_{NP}$ yilaa ye mommaye.
work Cl fm
'The work which is Tom's is good.'

(c) Re sa kakka doxo [[mogoyo]$_{NP}$ [lå xala-ca //]$_{COM}$]$_{NP}$
carry Cl
'They brought our food.'

(d) Ye sa xacagi-ya [[melwee tama-la]$_{NP}$ [we tamolo-li
love *that*
Lodow //]$_{COM}$]$_{NP}$
'She loved her father, the chief of Lodow.'

(e) Buyexaw ye sa la mele wȯȯ-li [[Yoor mė Xilop]$_{NP}$ [we ruwė-wo faluya-li Yulidiy //]$_{COM}$]$_{NP}$
'Buyexaw came to live on Yoor and Xilop, which were two islands of Ulithi atoll.'

(3) object of the main verb

E 332 (a) [Yifaa]$_{NP}$ [[lapa-li cale]$_{NP}$ [lå xo yulemi-ya//]$_{COM}$]$_{NP}$?
bigness *water* *drink*
'How much water did you drink?'

(b) Ye coolopa [[bulaxa]$_{NP}$ [lå re fadėxu-ya//]$_{COM}$]$_{NP}$?
much *taro* *plant*
'Did they plant much rice?'

(c) [Feda-yaye]$_{NP}$ [[pinsan]$_{NP}$ [lå xo be cuwayi-ya//]$_{COM}$]$_{NP}$?
Nucl *buy*

'How many pencils are you going to buy?'

(d) Ye sa [feda-male]$_{PP}$ [[xarexe]$_{NP}$ [lå xo sa lli//]$_{COM}$]$_{NP}$?

'How many crabs did you kill?'

(e) Ye teed buu doxo [[yaramata wee]$_{NP}$ [we yi weri-ya // lalow]$_{COM}$]$_{NP}$

'The person I saw yesterday hasn't come yet.'

(4) attributive

E 333 (a) Yiduwecox ye sa kapatapata gali-ya [[se-male ṁale]$_{NP}$
talk to a man

[la Marpaa yida-la //]$_{COM}$]$_{NP}$

'Yiduwecox talked to a man whose name is Marpa.'

(b) [Yifaa]$_{NP}$ [mė yiree-li [[babiyoro kaa]$_{NP}$ [ye cėccaa
red

dėla-la //]$_{COM}$]$_{NP}$]$_{PrepP}$ [/yiiy/ lå yaa-mu]$_{NP}$?
colour

'Which of the red books is yours?'

(5) head of a prepP

E 334 (a) Ye be le la ṁeri-ya [[se-wo leboso]$_{NP}$ [lå ye towee
go search one place ng

ma yoor yixu-li wolo [mė yiiyage]$_{PrepP}$]$_{COM}$]$_{NP}$
hb *end turtle* //
(anaph)

'She was going to find a place where there were turtles without limit.'

(b) [[Melwee boxata-la]$_{NP}$ [we ye ddawe yaa-la la wwayi daxe
that home far sailing dr
east

[mė yiiyage]$_{PrepP}$]$_{COM}$]$_{NP}$ gė ye sa yoxo magmege we yaa-la.
// fm *possible success*

'By sailing east far from her home, she attained her success.'
(lit. *(at) that home of hers from which her sailing east was far, it was possible, the-success which was hers*)

(c) Yi be sėrė logo [[leboso]$_{NP}$ [lå yi be mele
say dr

[yiiyange]$_{PrepP}$]$_{COM}$]$_{NP}$
//

'I will tell in it the place where I am going to stay.'

(d) Ye be [yifaa]$_{PP}$ [[yado]$_{NP}$ [lå xo be mele [wòò-li
time

Xuwam]$_{PrepP}$ [//]$_{PrepP}$]$_{COM}$?

'When will it be the time that you are going to stay on Guam?'

(e) Xeel xo yegaage [[yado]$_{NP}$ [we gaag yi duuduu [yiiyage]$_{PrepP}$

[la tade]$_{PrepP}$]$_{COM}$]$_{PrepP}$

'You worked while I was swimming in the sea.'

It should be noted in E 334 that if an antecedent is a <+place> word, deletion of its reflex in the embedded sentence is not effected, but it is replaced obligatorily by an anaphoric yiiyage. If an antecedent is a <+time> word (E 334 (d and e)), the reflex is optionally dropped or replaced by yiiyage.

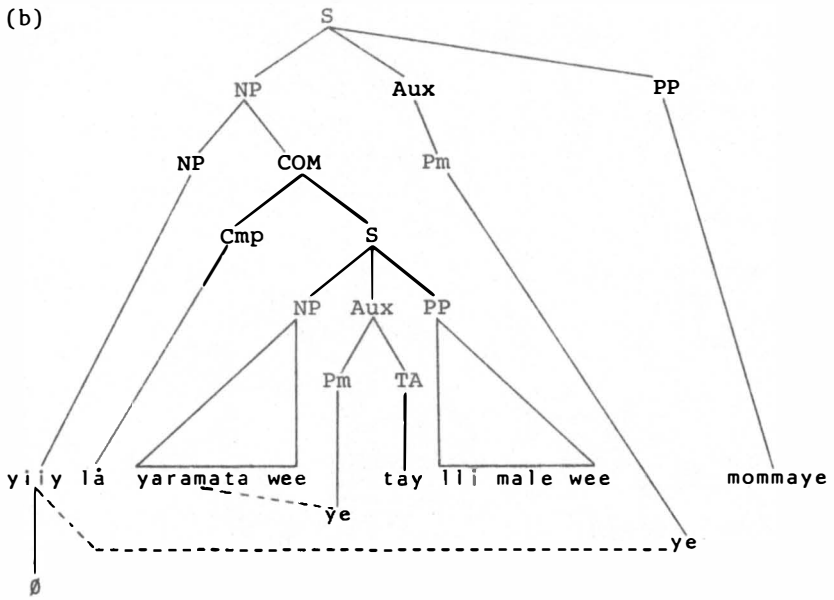
4.9.5. *CONJUNCTIVE TYPE NOUN PHRASE COMPLEMENTS*

This type is characterised by the fact that an NP and the following COM are in an equality relation (like English *'the fact that...'*) and thus no identity condition is needed between the NP and an element in the COM. As in English, the class of nominals which can be an NP preceding a conjunctive type COM is limited in number. In my data, only a few nouns (e.g. yalo *'words'*), demonstratives proper (e.g. melwee *'that'*) with <+SG>, and the pronoun yiiy with <+SG> and <-Ani> belong to this class. The pronoun yiiy, however, does not normally appear on the surface, but is postulated in the deep structure for the same reasons that were given in dealing with similar constructions of the relative type. Thus, for example, the sentence in E 335 (a) will be considered as derived from the deep structure roughly of the shape as in E 335 (b). The deletion of yiiy is effected by a general rule which deletes pronouns that are not focussed (*TR 21*).

E 335 (a) Ye mommaye lå yaramata wee ye tay lli male wee.
good that ng *kill bird*

'It is good that he didn't kill the bird.'

(b)



Theoretically, the antecedent followed by a conjunctive type complement may have any of the functions common to all nominals. But in fact such a construction occurs most frequently as a subject or direct object, and only occasionally as attributive. No example as a subject or predicate of Identification is found.

E 336 subject of predication

(a) Ye ta yoor ṁo [faa-li se-wo]$_{PrepP}$ [[/yiiy/]$_{NP}$ [lå ye be
even under one *the-fact*

ciil mele wòò-li Meriken]$_{COM}$]$_{NPs}$
still stay on

'He is no longer in the U.S.'

(b) Yixalaa yilaa ye ta yoor [[se-wo liluwale]$_{NP}$ [lå xaree
now fm *thought* *by-any-chance*

yi be te xola-xo]$_{COM}$]$_{NPs}$
catch

'Now there is no chance by which I cannot catch you.'

(c) Aay, ye mommaye [[/yiiy/]$_{NP}$ [lå yi be dabe-ya makaa
follow those

lawu-yi yiree-li mese]$_{COM}$]$_{NPs}$
child

'All right, I would rather follow my children to death.'

(d) Ye te mommaye [[/yiiy/]$_{NP}$ [bo re sa wulixi-ya xapatapata
oppose *talk*
kawee yaa-la]$_{COM}$]$_{NPs}$
'It is not right that they should oppose his words.'

(e) Ye wòò cox [[/yiiy/]$_{NP}$ [bo xo teed yegaage]$_{COM}$]$_{NPs}$
simi- just ng
lar
'It looks as though you haven't worked yet.'

E 337 object of predication

(a) Yi kakkabole-ya [[/yiiy/]$_{NP}$ [bo yi be loxo Saapan]$_{COM}$]$_{NP}$
wishing
'I wish I could go to Japan.'

(b) Ye sa dipali-ya [[/yiiy/]$_{NP}$ [bo ye be xula-ya kofa-li
know *result*
waa wee ye sa la fitaa lalow]$_{COM}$]$_{NP}$
go fishing
'He wants to know about the canoe which went fishing yesterday.'

(c) Ye sa faga [[yalo-la]$_{NP}$ [bo paaga-li wolo gė re be le
send *words* *all* *turtle* fm
xasi-ya gali Moxmox yiṁòò-li malaa re be teed lli-ya]$_{COM}$]$_{NP}$
carry *before* ng *kill*
'He ordered all the turtles to be brought to Mogmog before they were killed.'

(d) Re sa xula-ya [[/yiiy/]$_{NP}$ [bo sa yixu fedexe wee]$_{COM}$]$_{NP}$
over
'They knew that the fighting was over.'

(e) Yi te dipali-ya [[/yiiy/]$_{NP}$ [lå ye be yule xacii]$_{COM}$]$_{NP}$
drink *liquor*
'I don't want him to drink liquor.'

E 338 attributive

(a) Ye wòò cox fėėru-[li]$_{At}$ [[melwee]$_{NP}$ [xo teed fėėru
similar *make,* *make*
do
xala-ca]$_{COM}$]$_{NP}$
'It seems that you haven't cooked our food.'

(b) Ye be yifaa$_{PP}$ [yado-la [[/yiiy/]$_{NP}$ [lå xo be mele wòò-li
time-its *stay on*

Meriken]$_{COM}$]$_{NP}$]$_{NPs}$

'How long will you be staying in America?'

Cf. Ye be [yifaa]$_{PP}$ [[yado]$_{NP}$ [la xo mele woo-li

Meriken]$_{COM}$]$_{NPs}$

'When will you be in America?'

4.9.6. *COMPLEMENTISERS*

The meaning difference between the complementisers (bo, lå, and we) is slight and thus not easy to translate into English. Very often, they may replace each other except in relative type complements. Lå occurs most frequently in texts and we the least. Bo never occurs as a complementiser for a relative clause. We has apparently the same temporal (+past) and special (-visible) feature as the demonstrative enclitic (+Dm) wee, while la does not have those features. Cmp we and Dm wee are the same in surface forms, both being [we]. The reason for the base form differentiation is simply that Dm wee is parallel to kawee *'those (+Dm)'* and Cmp we to lå and bo which have the CV form. The base form differentiation may be supported by their functional difference. Dm wee is realised as [we] by the final vowel dropping rule which does not apply to Cmp we (*PR 40*).

In relative type complements, lå and we are dropped optionally, in fact preferably, when preceded by a demonstrative enclitic (+Dm).

E 339 (a) Ye sa [xola-yeyi]$_{PP}$ [[babiyoro kawee]$_{NP}$ [// xo faga]$_{COM}$]$_{NPs}$
arrive-me *send*

'I received those letters you sent.'

(b) [[Yaramata kaa]$_{NP}$ [// lawu-yi]$_{COM}$ [lå sulu-male]$_{COM}$]$_{NP}$ yilaa
fm

[yeliwici-li sukuun]$_{NP}$

'These three children of mine are students.'

(c) [[Pese wee]$_{NP}$ [// yi cuwayi-ya lalow]$_{COM}$]$_{NP}$ [melee]$_{NP}$
buy

'This is the dog that I bought yesterday.'

When lå and we do not drop after a demonstrative enclitic, there is a selectional restriction, i.e. we goes with wee and kawee but lå elsewhere.

E 340 Ye mommaye yegaage { lȧ / we / lee lȧ / wee we / *lee we / *wee lȧ } Yiduwer ye fèèru-ya.

'The(that,this) work which Yiduwer did is good.'

When there is no demonstrative enclitic preceding, a Cmp leading a relative type complement is never deleted. On the other hand, examples of conjunctive type complements in which no Cmp element appears are often encountered.

E 341 (a) Yi dipali-ya // yi be loxo Yulidiy.
'I want to go to Ulithi.'

(b) Ye be yoxo // xo be sopsopi luu?
possible
'Will you be able to cut coconuts?'
(lit. *will it be possible that you will cut coconuts?*)

In view of the meanings of the sentences in E 341, the deleted Cmp element may be identified as lȧ (*TR 42*). Thus, it may be assumed that only lȧ may be optionally deletable in conjunctive type complements.

4.10. ADJECTIVAL CONSTRUCTION

4.10.1. *GENERAL*

An adjectival construction is a noun phrase (NP) in which an adjectival is attributive to a lower level noun phrase (NM or Nm). Adjectival constructions are not directly generated by base rules, but through adjectivisation transformations. Three types of adjectival constructions may be distinguished according to which elements in deep structures have been adjectivised: nominal, verbal, and prepositional. These adjectivised elements will be called *adjectivals*, which are accordingly of three kinds: noun-derived, verb-derived, and PrepP-derived.

E 342 (a) nominal (noun-derived)

[Ppiya fasamaxa]$_{NP}$ [melwee]$_{NP}$
beach pebble
'That is a pebble beach.'

(b) verbal (verb-derived)

[Yiṁa-mu]$_{NP}$ [yiṁa mommaye laay]$_{NP}$?
good dm
'Is that good house yours?'

(c) prepositional (PrepP-derived)

[Melwee wòò-li Meriken]$_{NP}$ yilaa ye lèllaaye.
on America *long*
'The one in America is long.'

All adjectivals, except for an exclamation type described below, are placed after the NM to which they are related. If the NM contains a demonstrative enclitic (+Dm), noun-derived and verb-derived adjectivals precede the enlcitic, while the PrepP-derived follows it.

4.10.2. *ADJECTIVISATIONS*

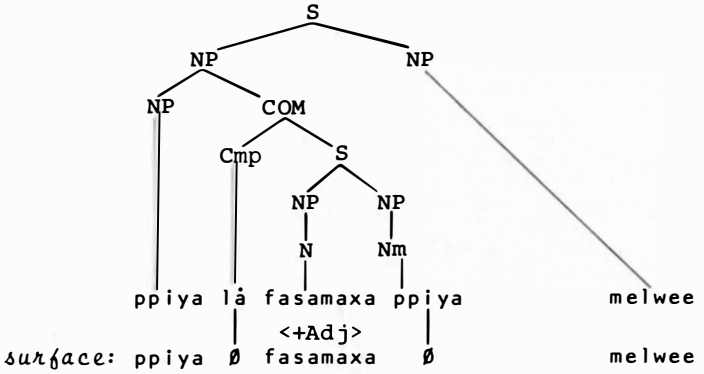
The three types of adjectival constructions have different derivative sources in deep structures. That is, though they share the highest level structural index NP$\frown$COM (*BR 15*) as the source, they are derived from different structures of the COM: the nominal type from identification, and the verbal and the prepositional types from predication sentences. The verbal type is different from the prepositional type in that the former is related to the verb in the predication and the latter to the prepositional phrase.

Some lexical items, such as complementisers, and the grammatical formative Pm are obligatorily dropped in the course of the adjectivisation (*TR 38*), in addition to the general identity deletions. The dropping of items, however, causes no change in meanings of the sentences involved.

On the other hand, there are strict restrictions in the constituent structure of the structural index of each adjectivisation *TR*. First, in the nominal type, the noun to be adjectivised must be the only member of the predicate NP of the identification S, the antecedent NP must be identical to the subject NP of the identification S, and, as the complementiser, là must be present.

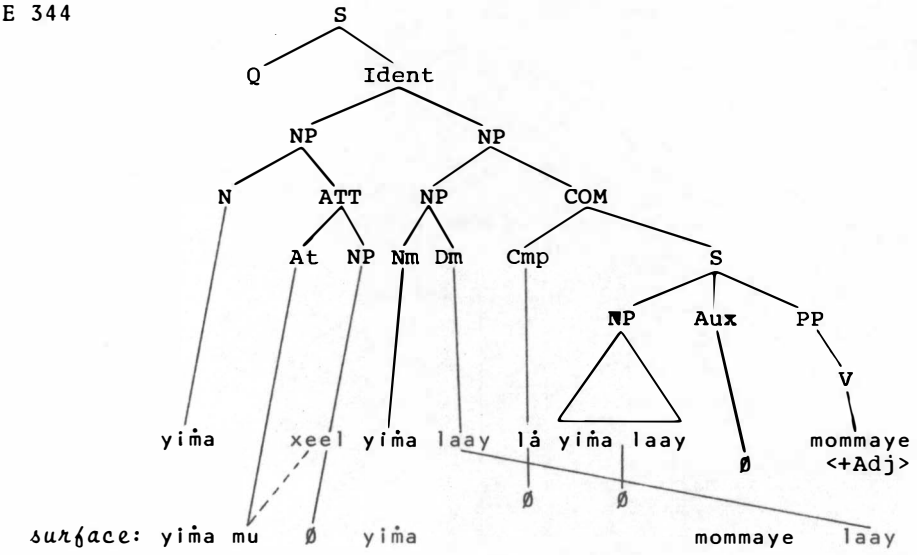
Thus, for example, the deep structure in E 343 underlies the sentence in E 342 (a).

E 343



Secondly, it should be noted in the verbal type in *TR 38* that no elements other than the V with the feature <+Adj> are allowed under the domination of PP in the embedded sentence. Thus, for example, the deep structure in E 344 underlies the sentence in E 342 (b).

E 344

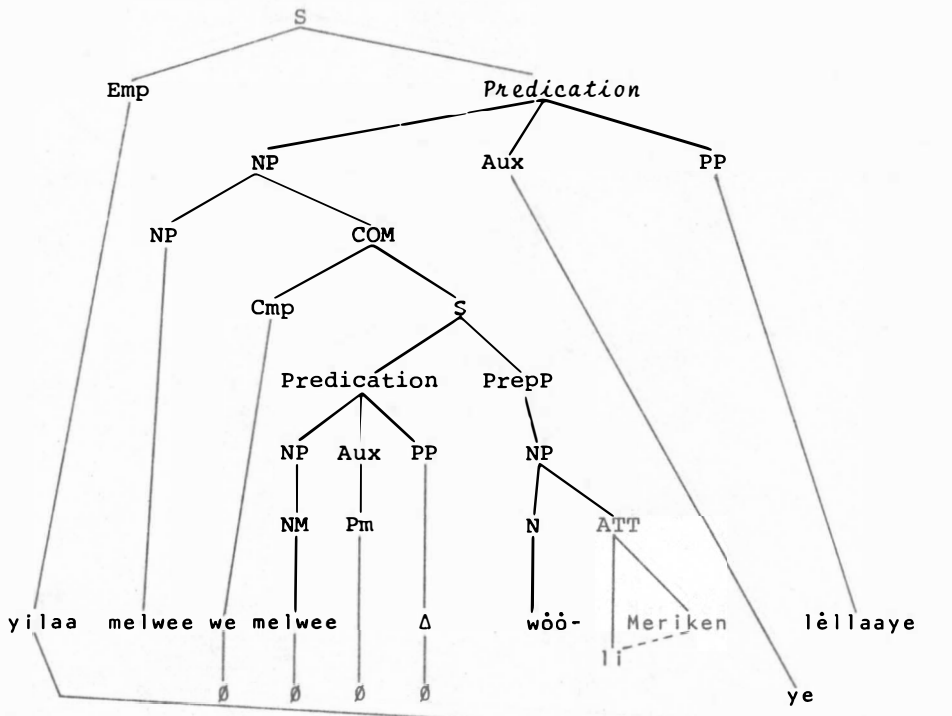


As indicated above, the demonstrative enclitic (Dm) dominated by the antecedent NP and the verb having the feature <+Adj> are obligatorily permuted (*TR 39*). The same holds with the noun having the feature <+Adj>.

Thirdly, in the prepositional type, the *TR* is obligatory and the structural index necessarily contains a dummy element Δ as the main verb. Another constraint is that the PrepP should contain only (mė *'from'*) + a pseudo-prepositional construction. For the introduction of dummy elements, see the discussion in 2.3.1. Thus, for example, the deep structure in E 345 is viewed as underlying the sentence in E 342 (c).

(See deep structure in E 345 overleaf.)

E 345



A question may be raised as to whether the complementisers once deleted may be uniquely recoverable, i.e. whether it is we or là that is to be recovered. Which has been deleted is predictable if there is a demonstrative enclitic dominated by the antecedent NP, since Cmp we co-occurs with wee and kawee, and là elsewhere. However, predictability is not possible when no Dm is present, since both là and we may appear in the deep structure in the environment where no Dm appears. From the semantic viewpoint, an adjectival construction which lacks a Dm element has the same meaning as the corresponding pre-adjectivised form containing là rather than one containing we.

E 346 se-male xatuu mommaye = se-male xatuu la ye mommaye
'a good cat' ≠ se-male xatuu we ye mommaye

It is clear, therefore, that when an antecedent NP does not contain a Dm element, only those constructions may be adjectivised in which the complementiser is là. This will be formulated in *TR 38*, in which the recoverability is straightforward.

4.10.3. *NOMINAL TYPE*

Nominal type adjectival constructions are derived from Identification sentences, for which the relation existing between a head nominal and the adjectival is a kind of appositive. This appositive relation, however, is different from other kinds such as those existing between a classifier and the classified (e.g. se-male ṁale *'one man'*, lawu-yi pese *'my dog'*), and between a demonstrative and the co-occurring noun (e.g. melwee bisi-la *'that brother of his'*), in that, in addition to the characteristic adjectivisation process (e.g. Dm postposition), the adjectival specifies the physical component of the head nominal (e.g. yiree luu lee *'this coconut tree'*). In this respect, it also differs from the verbal type in which the adjectival describes mainly the state of the head nominal (e.g. yiree pallege lee *'this big tree'*).

Noun-derived adjectivals are varied and their class is not easily definable in terms of certain features. So far as semantically acceptable, any material noun seems capable of becoming a noun-derived adjectival.

E 347 yalapa fase *'stone way'*; yiṁa koburaa *'tin house'*
way stone tin, iron

molalulu cale *'river'*; molalulu tade *'sea ditch'*
river water sea-water

Interrogative nominal medaa *'what'* may also be adjectivised. Compare the following sentences.

E 348 (a1) [Yiṁa medaa]$_{NP}$ [melee]$_{NP}$? (adjectival)
'What kind of house is this?'

Yiṁa semen. *but*: *yima pese; *yima pallege
'Concrete house.' **'dog house'* *'big house'*

(a2) [Yiṁa-li medaa]$_{NP}$ [melee]$_{NP}$? (attributive)
'What is this house for?'

Yiṁa-li pese. *but*: *yiṁa semen; *yiṁa pallege
'Dog house.'

(b1) [Mogoyo medaa]$_{NP}$ melee xo dipali-ya? (adjectival)
fm
'What kind of food do you want?'

Mogoyo yixi.
'Fish food.'

(b2) [Mogoyo-li medaa]$_{NP}$ melee xo dipali-ya? (attr.)
'What do you want food for?'

Mogoyo-li bogo-yi.
'Food for my birthday.'

Other interrogative nominals do not act as adjectivals.

4.10.4. *VERBAL TYPE*

This is the most productive type of the adjectival constructions, the adjectivals of which (verb-derived) should be marked with <+V, +Adj> in the lexicon. By the adjectivisation test, the following illustrative bases are <+Adj> verbs.

batabata	*'barren, thirsty'*	bbece	*'white'*
bedaya	*'fat'*	bece	*'hot'*
becikkara	*'very hot'*	beyaage	*'loose, as a post'*
cagcaga	*'skinny'*	cage	*'dear, loved'*
calaxara	*'sweet'*	caxase	*'proud'*
caxawa	*'selfish'*	cayėlapalapa	*'wide'*
ccawu	*'heavy, expensive'*	cėccaa	*'red'*
coolopa	*'many, much'*	dėxėdėxė	*'crippled'*
damumuu	*'wild'*	faalaxa	*'weak, lazy'*
fėsidala	*'famous'*	fėėriyexe	*'cunning'*
fele	*'just'*	kacapara	*'false, lie'*
kėlòxo	*'hungry'*	kkaga	*'sharp'*
kkatėėsė	*'true'*	kkela	*'strong'*
lapa	*'big, old'*	lėbaaxe	*'secret'*
lėllaaye	*'long'*	limismisi	*'cunning'*
macee	*'mistaken'*	macėxcėxė	*'soft'*
mada	*'cooked'*	malawa	*'alive'*
malfiliifi	*'thin (flat obj.)*	maluluu	*'tame, mild'*
masėssėlė	*'thick'*	mate	*'raw'*
masuusu	*'grey-haired'*	mese	*'dead'*
metafisi	*'blind'*	magalapa	*'selfish'*
meceraxe	*'easy'*	mmade	*'shallow'*
mmale	*'sour'*	mmale	*'rich'*
mmalawa	*'widely spaced'*	mmaraa	*'fast'*
mommaye	*'good'*	ṁocṁoco	*'busy'*
madagadaga	*'active'*	ṁocooco	*'short'*
ṁucoccoro	*'muddy'*	pallege	*'big'*
pààcixcixi	*'small'*	paragraga	*'yellow'*
peyaayaa	*'thin'*	peyaxusu	*'tired'*

rammasowa	*'hard'*	repiya	*'clever'*
rraye	*'happy'*	rucuppugu	*'dark, black'*
siilaye	*'long ago'*	siyale	*'pregnant'*
tamaaye	*'sick'*	tagataga	*'sad'*
tabogo	*'unjust'*	taxiyata	*'high'*
tayikkofo	*'wrong, bad'*	teyittiri	*'late'*
ttiri	*'fast, quick'*	tefòya	*'new'*
wàárese	*'hard, difficult'*	wecici	*'small'*
wele	*'different'*	wersaaxa	*'bright'*
wexaaxaye	*'steep'*	wuumese	*'late'*
wwele	*'straight'*	xafelmaga	*'important'*
xafoxoyo	*'poor'*	xafedèxè	*'alike'*
xalfèlè	*'cool'*		
xalòòlmoco	*'impatient'*	xaluxluxu	*'tight, healthy'*
xamaa	*'shy'*		
xamadiidiya	*'pretty'*		
xarowrowa	*'indigo, blue, green'*		
yadamaxili	*'eager'*	yòdo	*'deep'*
yoocixcixi	*'thin (non-flat object)'*	yule	*'drinkable'*

As has been indicated, verb-derived adjectivals immediately follow the head nominal to which they are related. Observe the following adjectivised sentences.

E 349 (a) [Lawu-yire]$_{NP}$ [ṁale mommaye kaa sulu-male]$_{NP}$
Cl *good* dm *3*
'These three good men are their children.'

(b) [Te yiiy]$_{NP}$ [se-male ṁale lapa]$_{NP}$
'He is not an old man.'

(c) Aay, xo loxo [la-li [cale yule wee]$_{NP}$]$_{PrepP}$
go in water
'Then, go into the drinkable water!'

(d) [Kaaxolo pallege kafaa]$_{NP}$ [melwee]$_{NP}$?
box big dm *which*
'Which big box was that?'

(e) Ye colo [se-wo butawe ttagarèxè [là]$_{Cmp}$ fasuyo-li Loorob]$_{NP}$
hang, throw-on one basket handy, simple weave
'She carried a handy basket which Loorob weaved.'

One exception to this post-nominal position of adjectivals is

associated with an exclamation. Verbal prefix te *'very'* may occur with only <+V> and <+Adj> verbs, providing the sentence in which it finds itself has the meaning of exclamation. When this prefix is attached to a verb with <+Adj> feature, the adjectivisation is obligatory in the first place, and, furthermore, the adjectival and the preceding head nominal are obligatorily permuted (*TR 40*). Thus, te has a *TR*-triggering function. Compare the sentences in E 350.

E 350 (a1) [[Se-male feefele]$_{NP}$ kamudiidiya]$_{NP}$ [yiwee]$_{NP}$
pretty *that*
'She is a pretty girl.'
Cf. *Kamudiidiya se-male feefele yiwee.

(a2) [[Te-kamudiidiya]$_{COM}$ se-male feefele]$_{NP}$ [yiwee]$_{NP}$
very-pretty
'What a pretty girl she is!'
Cf. *Se-male feefele te-kamudiidiya yiwee.

(b) Te-tayikofo se-male yeliwici yiwee.
very bad
'What a bad child he is!'

(c) te-coolopa *'very much, many'*; te-rraye *'very glad'*
te-taxiyata *'very high'*; te-kkaga *'very sharp'*
te-ccawu *'very heavy'*; te-wecici *'very small'*
te-cèccaa *'very red'*

In the case of non-adjectivised constructions, intensification of a verb with the feature <+Adj> is effected in two ways:

(1) By means of xarèta *'end'* to which the <+Adj> verb is attributive as in the following.

E 351 Ye [xarèta-li pallege]$_{PP}$ [sare wee]$_{NP}$
'That knife (used for coconut cutting, etc.) is very big.'

(2) By means of xaamas *'extremely'* which is an Int, thus post-verbal. Xaamas does not occur with a non-<+Adj> verb.

E 352 (a) Yi [kkela]$_{Vp}$ [xaamas]$_{Int}$
'I am very strong.'

(b) Ye [mommaye]$_{Vp}$ [xaamas]$_{Int}$ yeliwici laay.
'That child is very good.'

(c) *Ye sa lli-ya xaamas.
kill him

*Yi be loxo xaamas.
go

In E 351 pallege is used as a nominal, i.e. as the NP in a attributive phrase (ATT), while in E 352 kkela and mommaye remain as verbs. In E 351, however, the noun phrase xarèta-li pallege acts as the main verb dominated directly by VP (*BR 9*). The intensified constructions under (1) and (2) are usually not subject to adjectivisation. Thus, for example, E 353 is nearly unacceptable, in favour of E 354.

E 353 (a) (*)[Rase xarèta-li pallege]$_{NP}$ [melee]$_{NP}$
whale
'This is a very big whale.'

(b) (*)[Feefele kamudiidiya xaamas laay]$_{NP}$ yilaa [lawu-li
pretty fm
Manuwal]$_{NP}$
'That very pretty girl is Manuel's.'

E 354 (a) [Rase là ye xarèta-li pallege]$_{NP}$ [melee]$_{NP}$

(b) [Feefele laay ye kamudiidiya xaamas]$_{NP}$ yilaa [lawu-li Manuwal]$_{NP}$

Along with E 354 (a), the same meaning is also indicated by means of a recursively attributed form (*BR 19*) in the order of intensifying N + <+Adj>V + head N.

E 355 (a) [Melee]$_{NP}$ yilaa [xarèta-li pallege-li rase]$_{NP}$
fm
'This is a very big whale.'

Similarly:

(b) xarèta-li taxiyata-li tayiiti
end *high* *mountain*
'very high mountain'

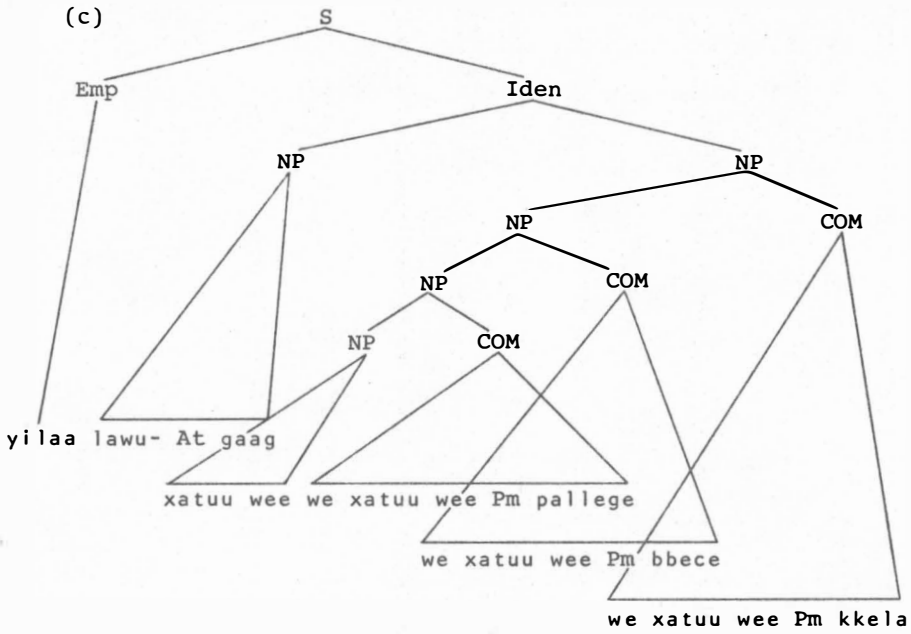
(c) xarèta-li mommaye-li màle
good *man*
'very good man'

Verb-type adjectival constructions may contain a sequence of adjectivals without any conjunction intervening. Such a construction is the result of the recursive application of an adjectivisation T (see *TRs 38* and *39*). Thus, for example, E 356 (a) is derived from an intermediate string in E 356 (b) which has approximately the deep structure given in E 356 (c), on next page.

E 356 (a) [Xatuu pallege bbece kkela wee]$_{NP}$ yilaa lawu-yi.
fm
'The big, white, strong cat is mine.'

(b) [[xatuu wee]$_{NP}$ [we Pm pallege]$_{COM}$ [we Pm bbece]$_{COM}$
[we Pm kkela]$_{COM}$]$_{NP}$ yilaa lawu- At gaag
fm

(c)



4.10.5. *PREPOSITIONAL TYPE*

So far as the data available are concerned, prepositional phrases introduced by bo *'as'* (prep. proper), and verbal prepositions gali- *'to'*, tagi *'away from'*, and yixili *'for'* are not adjectivised. Only pseudo-prepositional constructions optionally preceded by the preposition proper mė *'from, at, to'* may be adjectivised.

E 357 (a) Yiir [[mė luwėlu-yire /yiir/]$_{PrepP}$]$_{COM}$ melee re tamaaye.
Pro *among* fm *sick*
'Among them, they are sick.'

(b) Yilaay [[mė yiree-li pese kalaay]$_{PrepP}$]$_{COM}$ melee lawu-yi.
that *from*
Dm
'That one over there among those dogs is mine.'

(c) Paaga-li yaramata [[wòò-li Losiyop]$_{PrepP}$]$_{COM}$ gė re sa ma
fm
ffėsėgu-ya /yiiy/ lawu-li lulapa.
king
'Everyone on the island of Losiyop called him the prince.'

(d) Gaag melee yi sa lli-ya male wee [[yicuu-li yiree wee]$_{PrepP}$]$_{COM}$
on tree
'I killed the bird in the tree.'

(e) Se-wo raxe [mė wòò-li ṁiri-li yaa-la memmele wòò-li
one year from after his staying on
faluya-yi]$_{PrepP}$ gė ye sa tolu-ya yafe wee yaa-la.
this-island and set fire Cl
'After a year of his staying on this island, he set his fire.'

(f) [Xarėta-li melmėlė ye buu doxo]$_{NP}$ [yilaa [[la-li
end, last typhoon come that in
1961]$_{PrepP}$]$_{COM}$]$_{NP}$
'The one in 1961 is the last typhoon that came.'

4.11. MODALITY CONSTITUENTS

BR 3 expands the category Modality into three constituents: imperative (Imp), question (Q), and emphasis (Emp), the first two being related disjunctively. General comments were made in 4.3.3. regarding these constituents. More will follow in the subsection below, taking up separately Imp, Q, and Emp in that order.

4.11.1. *IMPERATIVE CONSTRUCTION*

The justification for postulating the occurrence of the imperative and question - along with the negative - morphemes in the base component of English is discussed in Katz and Postal 1964 (74-117) both in semantic and syntactic terms. On the basis of the Ulithian data available, there are also some reasons to set up the constituent Imp in the base component.

(1) From the semantic point of view, ambiguous sentences like E 358 have two distinct meanings.

E 358 (a) Xo be galle-yVre.
a. *'You will give it to them.'* (statement)
b. *'Give it to them!'* (imperative)

(b) Si sa loxo.
a. *'We(incl) went.'* (statement)
b. *'Let's go!'* (imperative)

The postulation of Imp in the base will account for the ambiguity of such sentences. That is, the deep structures of the sentences in E 358

contain Imp for the semantic interpretation of the b translations but not for the a's.

(2) A bit of syntactic evidence for the existence of Imp is the optional deletion of the predication marker (Pm) xo in case of the imperative, but never for the statement counterpart. Xo (2nd per. sg.) may be deleted when directly followed by a PP as in:

E 359 Xo kassiyi-ya Ludiy ==> Kassiyi-ya Ludiy (*TR 24*)
OP

'Ask Ludiy!'

By allowing Imp in the deep structure underlying E 359, the optional deletion of the Pm may be triggered by the presence of Imp in the structural index of the *TR*.

(3) Further syntactic evidence is associated with the tense-aspect marker sa (allomorph: ya) which never occurs in a simple declarative sentence with futurity meaning. In such a sentence, it always has the "perfective", "past" or "stative" (in stative verbs like those with <+Adj>). However, as already indicated in 4.4.6., sa in an imperative or in a conclusive clause of a subjunctive S has only futurity implication. Thus, there is no particular meaning difference between the two sentences in each pair below except that be implies less definite futurity than sa.

E 360 (a1) Xa be yalo-li Meriken.
'You(pl), speak English!'

(a2) Xa sa yalo-li Meriken.
'You(pl), speak English!' (definite)

(b1) Si be loxo.
'Let's go!'

(b2) Si sa loxo.
'Let's go!' (definite)

If Imp is not postulated, the two apparently different meanings of sa, i.e. "perfective" etc. and "futurity", would not be definable in terms of syntactic environments, which would lead to the consideration of two homophonous lexical items of the shape sa. In this treatment, however, the lexical item sa of "futurity" would be limited in occurrence to the position following xo *'you(sg)'*, xa *'you(pl)'*, and si *'we(incl)'* in simple declarative sentences. The postulation of Imp will make it unnecessary to postulate two sas and give the one particle of that shape fuller distribution. The various meanings associated with sa,

then, will be definable in terms of their syntactic environments.

Imperative constructions are relevant only for the pronoun subject with the feature <+HR>. This feature is shared by three pronouns **xeel** *'you(sg)'*, **xaamiyi** *'you(pl)'*, and **xiic** (allomorph: **xa**) *'we(incl)'*. In Ulithian, there is no first person singular imperative (English: *'let me'*) that can be formally differentiated. Deletion of unfocussed pronouns applies also to these pronouns, but their features are reflected in the **Pm** concerned. It is obvious that only predication sentences may be realised as imperative by virtue of the presence of **Imp**. Non-occurrence on the surface of imperative identification sentences may be handled simply by transformation blocking, i.e. a deep structure underlying no surface realisation. Examples of imperative constructions follow.

E 361 subject with <+HR, +SG>

(a) **Faga melee gali-yVre paaga-yire yeliwici.**
give, send this to all children
'Give this to all the children!'

(b) **Xasuu-ya talaga-mu.**
make-stand your-ear
'Listen carefully!'

(c) **Buu doxo, xo be maroo diye lepada-mami.**
come sit **dr** *between-us*
'Come and sit between us(excl)!'

(d) **Xo sa xattiri-xo.**
make-hurry you
'Will you hurry up!'

(e) **Xo towee ddare.**
'Don't run!'

(f) **Xeel melee xo sa buu doxo.**
fm
'You, come!'

(g) **Far xasi-ya doxo.**
rather
'Rather bring it here!'

E 362 subject with <-SP, +HR, -SG>

E 362 (a) Xa towee yoldi-ya babiyoro kalaa yaa-mu.
dm Cl
'Don't open your(pl) books!'

(b) Xa teye doxo lå tamolo-li faluya-yi
gather who chief island-this
'Line up! you(pl) who are the chiefs of this island.'

(c) Xaamiyi xa xase-li medawe.
language sea
'You people, speak Ulithian (the language of the ocean)!'

E 363 subject with <+SP, +HR>

(a) Si la dodowa.
go spear-fishing
'Let's go spear-fishing!'

(b) Si sa yegaage yixaa.
'Let's work here!'

(c) Si be loxo.
'Let's go!'

(d) {Xiic / Xa} si sa mogoyo.
we(incl)
'Let's eat!'

Imperative constructions occur in the progressive aspect which is indicated by reduplication of the verb.

E 364 (a) Gagalle-yVre.
'Continue to give them!'

(b) Fėfėėru-ya.
'Continue to do it!'

However, they do not occur with stative verbs or with the verbal manner particle (Mv) ma *'habitually'*.

E 365 (a) Xo sa mommaye.
'You were good.' but **'Be good!'*

(b) Si sa ma mogoyo.
'We have come to be able to eat.' but **'Let's eat!'*

Polite imperatives are indicated commonly by (1) tagging tama-yi *'my father, sir'* and sila-yi *'my mother, madam'* to an imperative sentence, the former in case of the male addressee and the latter the female addressee; and (2) preposing (sentence-initially) the idiom faa-li

pecee-mu gè *'please!'* (lit. *under your feet and*). Tama-yi and sila-yi were classed as vocatives in 4.1.2., i.e. as a kind of minor sentence. These cannot be considered as subject NPs because of the syntactic disagreement between them and the co-occurring Pms (e.g. xo <+HR> and tama-yi <-HR>). As has been mentioned, the subject NPs are pronouns which are to be deleted if unfocussed. The idiom faa-li pecee-mu gè may be treated as a sentence adverbial which has a distributional limitation, i.e. occurring only in [+Imp__].

E 366 (a) Xo be xasi-ya doxo babiyoro laa, tama-yi.
'Would you please bring that book?'

(b) Mariyaa, xasi-ya doxo lema-yi coofiy, sila-yi.
'Madam Mariya, would you bring some coffee for me?'

(c) Faa-li pecee-mu gè xo be faga lema-yi tafeye-li
give *medicine*
barexe-li cima.
pain *head*
'Please give me some headache medicine.'

Mv tè *'for a moment'* occurs only in imperative constructions as indicated in 4.4.7.

E 367 Tè kalla doxo.
'Look here for a moment!'

4.11.2. *INTERROGATIVE CONSTRUCTION*

As Katz and Postal (1964:85) point out, interrogatives are semantically similar to imperatives in that both sets are requests of some sort, but diverge from the latter for the fact that the request associated with an imperative is some kind of non-linguistic action, while an interrogative is concerned mainly with a linguistic response. The syntactic behaviours of the two sets are considerably different from each other, as will be noticed in the course of the following discussion.

In this study, the constituent Q has been postulated in the base component on the basis of the fundamental assumption that deep structures alone are relevant for semantic interpretation and transformation processes are meaning-irrelevant. Upon this basic assumption, some justification can be made for the constituent Q.

(1) In the semantic interpretation, the constituent Q represents the reading of "request an answer". Thus, the different semantic descriptions of an interrogative and its corresponding declarative will be

adequately accomplished. Consider the sentences in E 368.

E 368 (a) Ye sa mese.
a. *'He died.'*
b. *'Did he die?'*

(b) Yi sa weri-ya medaa.
see <+Q>
a. *'I saw something.'*
b. *'What did I see?'*

The b meanings for both sentences are viewed as resulting from deep structures containing Q. It should be noted that, in E 368 (a), the sentence has a rising final contour on the surface when it has the meaning of b, while E 368 (b) has a falling contour in either meaning (for this, see *TR 10*).

(2) Interrogative sentences and interrogative words are only loosely related to each other, i.e. one cannot necessarily be presupposed by the presence of the other. Thus, there are interrogative sentences which do not contain any interrogative words (yes-no questions) and those which contain one or more such words (so-called wh-questions). On the other hand, Ulithian contains non-interrogative sentences which involve interrogative words (which fact is the case with some Asian languages). Examples of the last set follow.

E 369 (a) Ye sa weri-ya yiitey.
see <+Q>
'He saw someone.'

(b) Yiiy melee ye fèèru medaa.
fm *do* <+Q>
'He is the one who did something.'

(c) Yi te xula-ya xaree xa sa xààtaa.
know *by-any-chance* [+V +Q *what happen*]
'I don't know what happened to us(excl).'

(d) Yi be le sèrè cox yida-li feda-wo mè yiiyage.
say *just name* [+Nus +Q] *from there*
'I will mention the names of only some of them.'

(e) Xa xula-ya bo te yixi melee bo se-wo medaa melee.
that *fish this because* <+Q>
'You know that this is not a fish but something else.'

(f) Yulidiy yilaa malboo sulu-yexe xaree medaa faluya pääcixcixi.
fm *maybe* *30* *or* <+Q> *small*
'Ulithi consists of thirty or so small islands.'

Examples in which an interrogative sentence contains two or more interrogative words follow.

E 370 (a) Yiitey melee ye sa weri-ya yiitey?
<+Q> <+Q>
'Who saw whom?'

(b) Yiitey melee ye fëëru medaa gali yiitey?
<+Q> <+Q> <+Q>
'Who did what to whom?'

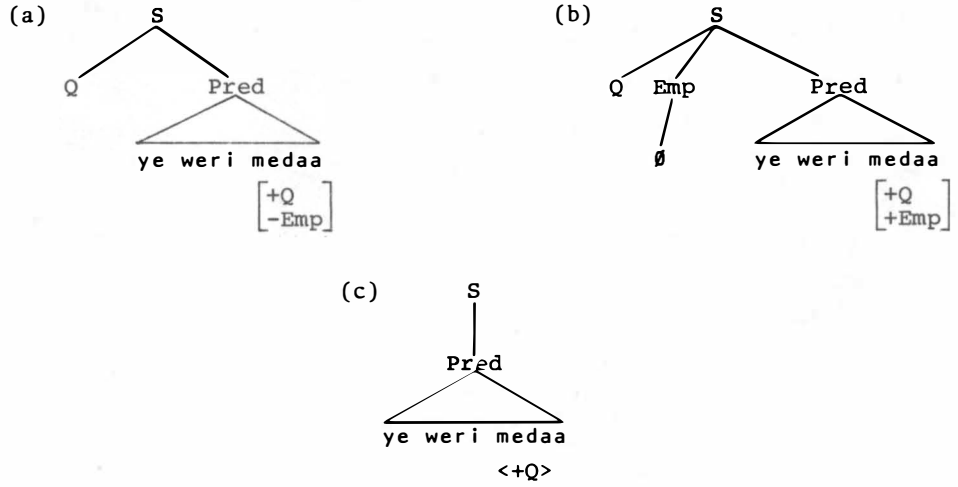
From the above examples, it is clear that there is no necessary relation existing between an interrogative sentence and an interrogative word. Moreover, it should be noted that the *question* meaning of an interrogative word is maintained even though it occurs in a declarative sentence (*'someone'*, *'something'*, etc. are only approximate English translations). On the basis of the above observation, it is assumed here that an interrogative sentence is derived from a deep structure having the constituent Q, and an interrogative word is simply a lexical item having the feature <+Q>, each existing independently in deep structures. As will be discussed in the following section, any NP may be either <+Emp> or <-Emp>. Then the following generalisation may be made. If Q alone or followed by <+Q, -Emp> word(s) occurs in the deep structure of a main sentence, it is a yes-no question; if Q and a <+Q, +Emp> word occur, it is a so-called wh-question; and if only one or more <+Q> words appears, it is simply a declarative sentence. Suppose no Q is postulated in the categorical component, the formal characterisation of the above sentence types would not be accomplished in a simple way. The three sentences in E 371 each have different underlying structures as indicated.

E 371 (a) Ye weri medaa? ↗
[+Q, -Emp]
'He saw something?'

(b) Ye weri medaa? ↘
[+Q, +Emp]
'What did he see?'

(c) Ye weri medaa. ↘
<+Q>
'He saw something.'

DEEP STRUCTURES



Among the interrogative words, yi(ka)faa *'which, what, where'* and yigåd *'when'* do not appear in all three ways shown in E 371 but only as in (b), i.e. they occur obligatorily with the constituent Q and are marked with <+Emp> in their lexical entries.

(3) Incidentally, Katz and Postal (1964:89) postulate the morpheme wh along with Q in the base component of English, indicating that the difference between different types of the so-called wh-questions is the difference between the position and number of occurrence of wh in deep structures. They further state: "The underlying P-markers of wh-questions contain both the morpheme Q and the morpheme wh. The Q morpheme indicates semantically only that the sentence is a question, i.e., a paraphrase of an appropriate sentence of the form *I request that you answer...* The function of wh is, however, to specify the element or elements of the sentence that are 'questioned'." In Ulithian, however, there seems to be less motivation for introducing a morpheme like wh either by transformation or by a base rule, since various subtypes of <+Q> word-questions are recognised by the occurrence of <+Q> words under the domination of different categories. Instead of introducing a morpheme, therefore, the feature <+Q> is assigned to all interrogative words.

<+Q> words so far found are of the following sort.

medaa *'what'* +N, -human
yiitey *'who'* +N, +human
yifaa and yikafaa *'which, what, where'* +N, +Dm, +Emp
yigåd *'when'* +N, +time, +Emp
yiiyaa *'where'* +N, +place

feda- *'how many'* +Nus
-faa, -kafaa *'which'* +Dm
xȧȧtaa *'what happen'* +V
feda *'do how'* +V, [+__Os]

In the following, E 372 illustrates more yes-no questions and E 373, <+Q> word questions. For the transformational processes concerning interrogatives, see TRs 9 and 10.

E 372 (a) Xo be siilaye wȯȯ-li Meriken?
long
'Are you going to stay long in America?'

(b) Xo sa gucu-li mogoyo-li mȧyi?
tired eat breadfruit
'Are you tired of eating breadfruit?'

(c) Se-male yixi melee xolo-mu?
fm Cl
'Is this a fish that you caught?'

E 373 (a) Medaa melee kaapini-li "Yap Islander" ye sa sėrė?
'What did the captain of the Yap Islander say?'

(b) Yiitey melee yaa-mu senseye?
'Who is your teacher?'

(c) Yifaa yida-li yaramata laay?
'What is the name of that person?'

(d) Yigȧd melee ye mese tama-mu?
'When did your father die?'

(e) Yu buu doxo mė yiiyaa yiiy dempoo laa?
'Where did the dispatch come from?'

(f) Feda-male tarṁale kalaa lawu-la?
'How many boys does he have?'

(g) Yado faa melee xo be buu doxo yiiyage walsuu?
time which anaph *tomorrow*
'What time are you coming tomorrow?'

(h) Xeel xo sa xȧȧtaa?
'What happened to you?'

(i) Ye xȧȧtaa lȧ xo la dabe-yeyi?
that become follow-me
'How come you have come to follow me?'

(j) Xo sa feda-yeyi?
'What did you do with me?'

(k) Yi be feda-xo?
'What shall I do to you?'

(l) Xo be le feda-yVre re-còò kawee?
'What will you do with them?'

For details on <+Q> words except for xààtaa and feda, see 4.8.10.

4.11.3. *FOCUS CONSTRUCTION*

4.11.3.1. The most prolific construction in Ulithian texts is that of emphasis (or focus). Any noun phrase (NP) may be focussed in some way or other. Furthermore, a noun phrase preceded by a preposition proper (i.e. bo *'as, for'* or mè *'from, to, at'*) may also be focussed in the same way. In almost all cases, a focussed NP is placed in sentence-initial position followed by one of the three focus markers or by zero, the latter of which will also be called a focus-marker (fm) in view of its distinctive syntactic function, as well as its realisation as a phonological juncture. The difference in meaning among the four focus markers is not easily translatable into English. Rough positive semantic features and translations are given to each marker. Underlines represent the elements focussed.

__ melee (selective) : *'it is __ that ...'*
__ yilaa (topic & contrastive): *'as for __'*
__ gè (topic) : *'as for __, __ also, in case of __'*
__ Ø - : *'as for __'*

Melee and yilaa are apparently demonstratives proper in form, but not in meaning, since they are free from any spatial (deictic) and temporal features. Gè is the same in form as conjunctive gè, but diverges from the latter in meaning. E 374 illustrates the occurrence of the above focus markers, with E 374 (e), an unfocussed sentence, serving as a point of comparison.

E 374 (a) Feefele laay melee se-male senseye.
'It is that woman who is a teacher.'
or *'That woman is the one who is a teacher.'*

(b) Feefele laay yilaa se-male senseye.
'As for that woman, she is a teacher.'
or *'That woman is a teacher (and not a student).'*

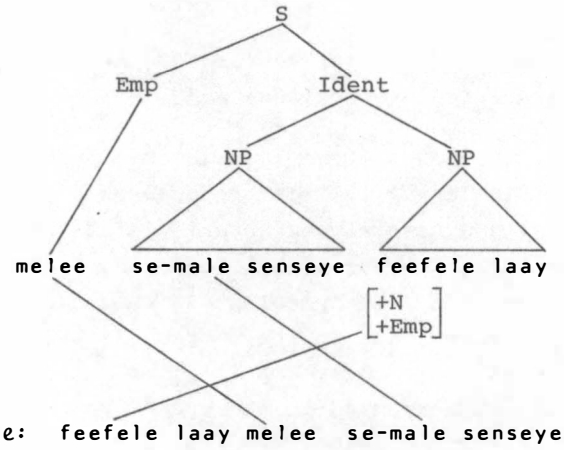
(c) Feefele laay gè se-male senseye.
'That woman is also a teacher.'
or *'In case of that woman, she is a teacher.'*

(d) Feefele laay Ø se-male senseye.
'(As for) that woman, she is a teacher.'

(e) Se-male senseye feefele laay. (unfocussed)
'That woman is a teacher.'

4.11.3.2. It has been decided in this study that the constituent Emp is set up in the base component under the domination of Modality (*BR 3*) so that Emp may, as a lexical category, directly dominate the above-mentioned focus markers on the one hand, and trigger an obligatory *TR* operation (like Q or Imp) on the other (see *TR 11*). A redundancy rule (*RR 2* in 4.14.) will assign a feature <±Emp> to NP, so that only that NP which is specifically marked with <+Emp> may undergo a focus transformation. Thus, for example, E 374 (a) is regarded as having the following deep structure.

E 375



surface: feefele laay melee se-male senseye

For the transformation process, see *TRs 11, 13, 21* and *23*.

There are two problems that have been encountered in the formulation of focus transformation rules.

(1) It is often the case that more than one focussed NP appear in a sentence. In my data, three occurrences are the maximum, illustrated in E 376 (e). More than three may be theoretically possible, but are mostly unnatural and unacceptable. E 376 (a)-(d) are the examples in which two focussed NPs occur.

E 376 (a) Fadè-li luu yilaa màle melee re ma fèèru-ya.
planting *man* hb *do*
'As for the planting of coconuts, it it men who do the job.'

(b) Gaag yilaa walsuu melee yi be loxo yiiyage lamaliyele.
tomorrow anaph *morning*

'As for me, I will go tomorrow morning.'

(c) Bogo-yi melee gaag ṁo melee yi be le loxo.
tonight rather
'Tonight, I would rather go.'

(d) Paabiya kawee sulu-male gė ruwė-male mė yiree-yire Ø
pig from
re bii daxe mė Yap.
come east
'Two out of the three pigs are from Yap.'

(e) Te sėpala-li cox waa melee yiir cȯȯ kalaa Ø
canoe-house *they people*
yaa-yire sėpala kalaa Ø re ma taptape yiiyage.
use
'It is not only as the houses for canoes' use that those people use their canoe houses.'

The problem here is how to formulate the multiple occurrences of focussed NPs in a simple way. It is proposed that this problem be solved by recognising a special characteristic of the constituent Emp. As mentioned elsewhere, Emp has a dual function, i.e. it acts as a lexical category and as a *TR*-triggering element. In the former function, it supplies focus markers, and in the latter, it obligatorily triggers a focus *TR*. In addition to this, Emp is given a third function, i.e. it is recurisively self-expanded in the structural change in a *TR* to match the number of occurrences of NPs with the <+Emp> feature. Thus observe the following (cf. *TR 11*).

E 377 SD: Emp...NP_1...NP_2...NP_n...
<+Emp><+Emp><+Emp>

SC: NP_1 +Emp +NP_2 +Emp...NP_n +Emp...

Then Emp is regarded, by convention as a lexical category whose lexical items (focus markers) may not be inserted in the preterminal string in the deep structure but rather in the structure derived by focus transformation, e.g. to SC in E 377. This convention is necessary because, if a focus marker is to be inserted in a deep structure, it would follow that all the Emps appearing in the SC in E 377 must represent one and the same focus marker, which is not usually the case in actual sentences. The approach proposed here, however, constitutes an important exception

to the principle that only the deep structure is relevant for semantic interpretation. This seems to be an unavoidable exception within the present framework of the description. A somewhat similar view may be observed in Jacobs and Rosenbaum (1968:84 and 157) concerning "second lexical pass". Thus E 376 (a) is the derivation of the following processes.

E 378 *deep*: Emp + ṁale +Pm + ma + fėėru Os + fadė At luu

$$\begin{bmatrix} +N \\ -SG \\ +Emp \end{bmatrix} \qquad \begin{bmatrix} +N \\ +SG \\ +Emp \end{bmatrix}$$

==> fadė-li luu Emp ṁale Emp Pm ma fėėru-Os

==> Fadė-li luu yilaa ṁale melee re ma fėėry-ya.
fm fm

(2) The other problem is related to the impossibility of focussing two NPs (subject and predicate) in an Identification sentence in spite of the fact that both NPs may be assigned <+Emp> by *RR 2*.

E 379 (a) [Se-male paadaleye]$_{NP}$ [yaramata wee]$_{NP}$
priest
'That person is a priest.'

(b) Yaramata wee melee se-male paadaleye.
<+Emp> fm
'It is that person who is a priest.'

(c) *Yaramata yilaa se-male paadaleye melee.
<+Emp> <+Emp> <+Emp>

In order to block the derication of sentences like E 379 (c), it is proposed that a *TR* of the sort in E 377 be appended by a condition (see *TR 11*).

There might be an alternative treatment in which melee and yilaa are simply demonstratives, i.e. functioning as the antecedent of the following sentence. In that case, the following sentences would have to be considered as Identification.

E 380 (a) Gaag cox melee yi kamaaxo-ya.
NP NP
'I am the only one who saw it.'

(b) Yilaa ye feefele melee Luyisaa yida-la.
woman
NP NP
'That one who is older is the one whose name is Luyisa.'

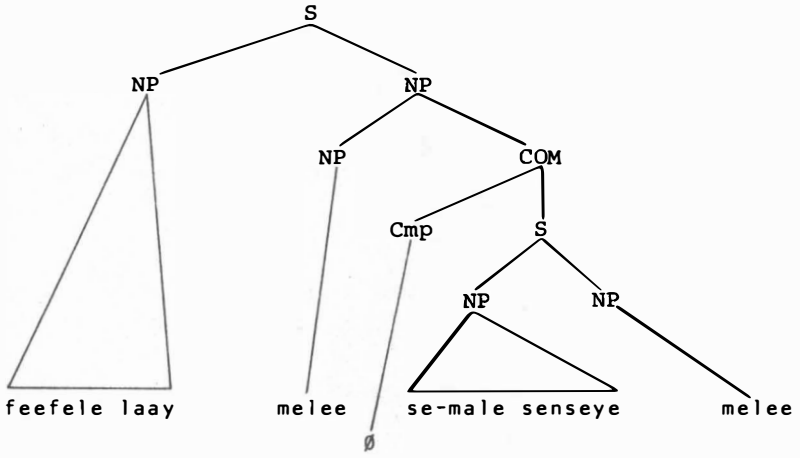
(c) Wolo wee yilaa ye xarèta-li pallege.
end
NP NP
'As for that turtle, it is very big.'

(d) Yiir yilaa ye rucuppugu xilLi-yire.
black
NP NP
'As for them, their skin is dark.'

If melee and yilaa are considered as focus markers, all the sentences in E 380 are of the predication type, and the elements preceding the focus markers are permuted ones which have their derivative source on the right of the focus markers. Thus, gaag in E 380 (a) is the subject of the sentence which has its source immediately preceding the Pm (yi); yilaa ye feefele in E 380 (b) is attributive to yida, having its pre-transformation source in the position right after yida-la; etc. Under the demonstrative treatment of melee and yilaa, however, the terms on the left of melee and yilaa are directly introduced by base rules as the predicate NP of the identification sentences. And their right terms are complements (COM), with melee and yilaa as the antecedents. In this treatment, there would be no need to postulate the constituent Emp as far as melee and yilaa are concerned.

The above two alternative approaches presuppose entirely different deep structures. In comparison with E 375 which is based on the focus marker treatment, the same sentence would have the following deep structure if the demonstrative treatment is followed.

E 381



There are several reasons to prefer the focus marker treatment.

(1) As already indicated, melee and yilaa do not contain any temporal

or spatial features when they occur in constructions like E 380, while they do when they are used as demonstratives. This fact is more clearly observed in E 382.

E 382 (a) Melee yilaa yiṁa-yi.
[+Dm, +SP] fm
'This is my house.'

(b) Yilaa melee yiṁa-yi.
[+Dm, +HR] fm
'That is my house.'

(2) Melee and yilaa, when used as focus markers, do not have to agree with the preceding NP, which is not the case when they are used as pure demonstratives. Thus in E 383, saldawe kalaa *'those soldiers'* (+Ani, -SG) and yilaa do not agree in number, which fact leads to the interpretation of yilaa not as a demonstrative but as a focus marker.

E 383 Saldawe kalaa yilaa re kkela gè re madagdaga.
X
strong and brave
'As for those soldiers, they are strong and brave.'

(3) Following the demonstrative treatment, the sentences below would be of the Identification type. However, there is semantically no identification or any other relation between yixalaa and yilaa in E 384 (a), and between gaag and melee in E 384 (b).

E 384 (a) Yixalaa yilaa tay yoor malawa yiree-mu.
now ng *exist life at you*
'Now, there is no life to you.'

(b) Gaag melee ye pallege yaa-yi babiyoro.
'I am the one whose book is big.'

(4) The focus marker treatment in which the focussed NP is transformationally preposed clarifies the occurrence of the anaphoric yiiyage. In E 385, the first yiiyage is a nominal with the <+place> feature, but the second is anaphoric, which should be interpreted as having filled the position left open by the deletion of *September 11*. If, on the other hand, melee is to be considered as a demonstrative and *September 11* is its predicate NP, there would not be any satisfactory explanation about the occurrence of the second yiiyage.

E 385 Yi sa sèrè logo yiiyage bo September 11 melee xo be cuyu yiiyage.
day dr *that* *leave*
'I said in it that on September 11 you will leave.'

(5) An emphasised (focussed) sentence and the corresponding plain sentence are closely related, intuitively transformable from one to the other and vice versa. Such a close relation would not be syntactically representable without transformational processes as the kind proposed in this study. Besides, the proposed approach (focus marker treatment and related transformations) can include gė and Ø focus markers along with melee and yilaa, all of which may be handled in a single framework. For the related rules, see *TRs 11, 13, 21* and *23*.

4.11.3.3. In the following, a number of examples will be given covering the four focus markers. (// indicates the deep structure position of the focussed elements.)

(1) Melee

E 386 subject of Identification (focussed)

(a) Yiiyee melee rii-yi //.
this
'This is my wife.'

(b) Yiwee melee tama-yi //.
that
'That (unseen) is my father.'

(c) Libertus melee te senseye //.
'Libertus is not a teacher.'

(d) Gaag melee Yagpaluy //.
'I am Yagpaluy.'

E 387 subject of Predication

(a) Tėėt mė yiiyage melee // ye totoo gali wòlwulu.
some *covered with grass*
'Some of them are covered with grass.'

(b) Xatuu melee // ye ma lli-ya xece.
cat hb *kill*
'It is cats that always kill rats.'

(c) Yaramata laa melee // ye pėra-ya salapiya wee.
steal money
'That person is the one who stole the money.'

(d) Medaa melee // ye maxudxudu?
'What is it moving?'

(e) Xeel melee // xo loxo?
'Is that you who are going?'

E 388 direct object of the main verb

(a) Medaa melee si be le mogoyo // yixalaa?
today
'What are we(incl) going to eat today?'

(b) Yi sa xula-ya bo gaag melee ye liluwale-yeyi //.
know that think
'I know that he had me in mind.'

(c) Yaramata laay melee xo towee lli-ya //.
'Don't kill that man!'

E 389 indirect object of the main verb

(a) Se-male woos melee yi be galle-ya // mogoyo laa?
'Is it to a horse that I should give that food?'

E 390 attributive to an NP

(a) Yiiy melee ye sa talici loxo yaa-la // ggase.
be gone breath
'He is the one who got out of breath.'

(b) Yiitey melee yaa-la // babiyoro lee?
'Whose is this book?'

(c) Gaag melee ruwė-male lawu-yi // pese.
Cl
'I have two dogs.'

E 391 head of a prepositional phrase

(a) Yiiyaa melee re be loxo bisbisi kawee yiiyage?
brothers //
'Where will the brothers go?'

(b) Yigȧd melee ye be capPi sukuun lee // ?
'When does this school begin?'

(c) Yado faa melee xo be buu doxo yiiyage walsuu?
time which // *tomorrow*
'What time are you coming tomorrow?'

(d) Ṁooc yixalaa melee yi be le loxo //.
just now

'I will go right now.'

(e) Yixalaay melee re tay mele yiiyage.
over-there //
'They are not over there.'

(f) Lagace-li tade melee yi be le loxo yiiyage.
side *sea* //
'I will go to the side of the ocean.'

(g) Mė yiiyaa melee ye buu doxo kacidoo laa yiiyage?
from where *movie* //
'Where did the movie come from?'

(h) Medaa melee xo mammale yiiyage?
(yiree-li //)
'Why are you laughing?'

(2) Yilaa

E 392 subject of Identification

(a) Melee yilaa ccaa-yi //.
'This is my blood.'

(b) Yida-la yilaa Ben //.
'His name is Ben.'

(c) Boto wee ye sa loxo yilaa waa-yi //.
'The boat which has left is mine.'

(d) Boxata wee re weri-ya lalow yilaa te boxata-ca //.
'The village they saw yesterday is not our(incl).'

E 393 subject of Predication

(a) Lawu-yi pese wee sulu-male yilaa // re sa mese.
'My three dogs died.'

(b) Tåwusu lee la-li cale lee yilaa // ye wecici.
'This porcupine fish in this water is small.'

E 394 object of the main verb

(a) Rata wee yilaa yi dipali-ya //.
'I like that bicycle.'

(b) Yegaage lee yilaa yi te fèèru-ya //.
'I didn't do this work.'

E 395 attributive to an NP

(a) Gaag yilaa malboo ye tamaaye malaa bisi-yi // wòò-li Meriken.
maybe *sick*
'As for me, my brother in the U.S. is perhaps sick.'

(b) Tèèt yiir faluya kalaa yilaa te yoor yiree wuwòò-la //.
island ng *tree*
'As for some of those islands, there is no tree on them.'

(c) Yeliwici kalaay yilaa ye teffoya yaa-yire // belaa.
child *new* *shoes*
'As for those children, their shoes are new.'

E 396 head of a prepositional phrase

(a) Yiiyee faluya-li Losiyop yilaa ye mele se-male yaramata
this, here *live*
yiiyage là Loorob malaa yida-la.
// *that* *that* *name*
'Here on the island of Losiyop, there lived a person whose name was Loorob.'

(b) Yiree-li yiiy melmèlè lee yilaa ruwè-male yaramata là re
at *typhoon*
mese yiiyage.
die //
'By this typhoon, two persons were killed.'

(c) Yoco wee yixalaay, yoco wee yixalaay yilaa xa be ma la
reef *over-there* *go*
xacawara yixi mè yiiyage.
carry //
'You(pl), go and get fish from the reef over there and the reef over there!'

(3) Gè

E 397 subject of Identification

(a) Paaga-yire gè senseye //.
'As for all of them, they are teachers.'

(b) Xaamami gè yeliwici-li sukuun //.
'We(excl) are also students.'

E 398 subject of Predication

(a) Se-male gė // ye sėrė bo gaag melee tamolo-li faluya-yi.
one say that chief island-this
'As for each of them, each said that he was the one who was the chief of the island.'

(b) Xiic cox gė xa si sa lli-xica //.
just kill
'We killed ourselves.'

(c) Te paaga-li fedėxė gė // ye mommaye.
ng *all meat good*
'Not all meat is good.'

E 399 object of the main verb

(a) Ye sa xula-ya lå paaga-li loxo Yulidiy lee gė ye be le
know dm TA
boxatali-ya //.
make-as-home
'She knew that she would make all Ulithi her home.'

E 400 attributive to an NP

(a) Paaga-li faluya-li Yulidiy gė ye ssėxu gė ye fidii
island full get-together
palleglege-yire yaramata-la //.
big people
'All the islands of Ulithi Atoll were filled with big, strong people.'

E 401 head of a prepositional phrase

(a) Faluya-li Yulidiy gė Buyexaw ye la buu doxo yiiyage
gė paaga-li fėėrmele gė te yoor yiiyage.
then all things there
'When Buyexaw came to the Ulithi Atoll, there was nothing there.'

(b) Yixalaa mò gė ciil mele // yiiy fase laa lėcėėcė-li yipėlė
now even still stone
laa wòò-li Moxmox.
'Even now, there still exists that stone in the middle of the

menstruation house on Mogmog.'

(c) Lalow gė re sa kagali-yeyi // bo lamaliyele yiree-li
tell me that morning at

ruwė-wo kulok gė yi be loxo //.

'Yesterday they said to me that I had to go at two o'clock in the morning.'

(d) Siyaa-li yaa-yi cuya mė yiree-li sukuun mė Xuwam gė
boundary my leave

gaag mė malaa bisi-yi xa memmele cox se-wo.
that brother living just together

'Until I left the school on Guam, I and my brother had lived together.'

(4) ø

E 402 subject of Identification

(a) Feefele lee lawu-yi ø yaa-mu kuwin //, malaa lawu-mu ø
this

yaa-mami lulapa //.
our(excl) king

'My daughter is your queen, and your child is our(excl) king.'

E 403 subject of Predication

(a) Yiir ø // re ddare loxo, ddare loxo.
'As for them, they ran and ran.'

(b) Xala wee ø // ye sa molo mė yiree-li mogoyo.
'As for the man, he has finished eating.'

E 404 object of the main verb

(a) Re-cȯȯ kawee ø yi sa dabe-ya //.
'I followed those people.'

E 405 attributive to an NP

(a) Yiir ø ye kkela yaa-yire // yegaage.
strong work

'They are hard workers.'

(b) Lulu wee ø ye tay yoxo yadamaxi-la // yiree-li waxedexe
female ng *possible endurance at manner*

kaa yaa-yire gali-ya.
dm *to-her*
'The girl couldn't endure their conduct toward her.'

(c) Yeliwici kawee Ø ye te tuxili dipa-yire // yiiyage.
not sure *feeling*
'Those boys are not sure about it.'

(d) Makalaa xaamiyi xa sèsèrè Ø ye te xafedèxè faa-la //?
those *you(pl)* *saying* *same* *meaning*
'Aren't those which you are talking about not the same in their meaning?'

4.12. VERB

4.12.1. *CONSTITUENT STRUCTURE*

BR 23 $\begin{bmatrix} \text{Vp} \\ \text{Vpr} \end{bmatrix} \longrightarrow \begin{bmatrix} \text{V} \\ \text{Vprs} \end{bmatrix}$ (Os)

LEXICON

yeyi	*'me'*	+Os, +SP, +SG
xo	*'you'*	+Os, -SP, -HR, +SG
ya	*'him, her, it'*	+Os, -SP, -HR, +SG
xica	*'us(incl)'*	+Os, +SP, +HR
xomami	*'us(excl)'*	+Os, +SP, -HR, -SG
xomiyi	*'you(pl)'*	+Os, -SP, +HR, -SG
yVre	*'them'*	+Os, -SP, -HR, -SG

For <+Vprs> bases, see 4.7.1.

4.12.2. *OBJECT SUFFIXES* (+Os)

As indicated elsewhere, the constituent Os is a kind of grammatical formative and the base forms of its members are obtained by a phonological rule (*PR 14*) from the features of Os which in turn have been copied from the following (object) NP (*TR 2*). The base forms of the object suffixes have been inductively reconstructed in the light of general morphophonemic properties existing in the phonological structures of the language. Also some comparative evidence was taken into account where necessary. Thus, a set of general phonological rules (PRs in 3.6.3.) will give various surface forms associated with the base forms presented in the Lexicon under 4.12.1.

One thing particularly hard to decide was the base form of the 3rd per. sg. suffix, which corresponds to the underlined surface forms in

the following examples.

E 406 [l:i-(y)] *'kill him'*
[fə:ru-(y)] *'make it'*
[ɑgo-(y)] *'miss him'*
[xɑmɑɗɑvɑ-__] *'explain it'*
[ɗaɓwe-(y)] *'follow him'*

That is, the suffix is realised on the surface as an optional y except for the position after a where it is zero. There is some evidence, however, in support of the assumption that the base form of the suffix is ya.

(1) Although ya never appears phonetically as [yV] when the related verb functions as the main verb, it does appear as such if the verb is nominalised before an attributive suffix (*TR 36*).

E 407 [l:iyey] *'what I killed'*
[l:iyəmʷ] *'what you killed'*
[l:iyalˀ] *'what he killed'*
[l:iyelˁ se malˁ] *'what someone killed'*
[l:iyac] *'what we(incl) killed'*
[l:iyæ:r] *'what they killed'*
[xɑmɑɗɑvɑyey] *'what I explained'*
[xɑmɑɗɑvɑyəmʷ] *'what you explained'*
[xɑmɑɗɑvɑyɑlˀ] *'what he explained'*
[xɑmɑɗɑvɑyelˁ se malˁ] *'what someone explained'*
[xɑmɑɗɑvɑyɑc] *'what we(incl) explained'*
[xɑmɑɗɑvɑyæ:r] *'what they explained'*
...

If in E 407 the forms (e.g. [ye], [yə] and [yɑ]) between a verb stem (i.e. [l:i], [xɑmɑɗɑvɑ]) and an attributive suffix (e.g. [y], [mʷ], [lˀ], [lˁ], [c]) are reduced to the base form ya, then general morphophonemic rules will derive all the forms related to the base ya unambiguously and without exception. For the morphophonemic processes, see the PRs in 3.6.3.

(2) Exactly the same morphophonemic behaviour may be noticed in many words which are not transitive verbs. For example, [fɑlu(y)] *'island'* and [cu(y)] *'disappear'* keep the optional [y] in their independent form, and if attributive suffixes are added, the following phonetic forms are obtained.

E 408 [fɑluyey] *'my island'*
[fɑluyəmʷ] *'your island'*
[fɑluyɑlˀ] *'his island'*

[faluyelʿ se malʿ] *'someone's island'*
[faluyæ:r] *'their island'*

[cuyey] *'my disappearance'*
[cuyəmʷ] *'your disappearance'*
[cuyaɭʾ] *'his disappearance'*
[cuyelʿ se malʿ] *'someone's disappearance'*
[cuyæ:r] *'their disappearance'*

Since [falu(y)] and [cu(y)] have been set up as faluya and cuya in base forms, the parallelism between E 407 and E 408 leads to the reconstruction of the forms in E 406 except for [xamadava] as follows.

E 409 lli-ya *'kill him'*
fèèru-ya *'make it'*
faxo-ya *'miss him'*
dabe-ya *'follow him'*

Thus the final vowel dropping rule (*PR 40*) and the rule of optional dropping of semi-vowels (*PR 45*) may connect E 409 to E 406. The non-occurrence of [y] on the surface in the environment a __# was described in connection with related PRs in 3.6.3. (e.g. *PR 33*).

Another problem in the reconstruction of the base forms of the object suffixes is associated with yVre *'them'*. The phonetic form of this suffix is simply [r] with the preceding vowel lengthened. The reconstruction of yVre is affected by a suggestion made by Bender (personal communication) who points out that the setting up of an archivowel (V) can account for the lengtheningof the preceding vowel without affecting any phonetic quality, that yV- is apparently parallel to the 3rd per. sg. ya and that yVre corresponds to the proto-form *sida. This form furthermore corresponds in some way to the independent pronoun yiir and Pm re. The phonetic form [:r] can be derived by general morphophonemic rules (PRs in 3.6.3.).

Examples in which object suffixes appear follow.

E 410 (a) Re sa weri-yeyi la-li tentoo wee yiṁa-yi.
see *in* Cl
'They saw me in my tent.'

(b) Re xafaga-xo loxo.
'They sent you over.'

(c) Kassiya-ya Luurdes.
'Ask Lourdes!'

(d) Ye sa tutuxu-xica.
'He was hitting us(incl).'

(e) Ye yoxo gali-xomami melwee xa dipali-ya.
possible to that we want
'What we(excl) wanted was possible to us.'

(f) Yi sa weri-xomiyi lalow.
'I saw you(pl) yesterday.'

(g) Ye mele bo yixili-yVre.
'He lives for them.'

4.12.3. *CLASSIFICATION OF VERBS* (+V)

It has been indicated that verbal preposition stems (+Vprs), in spite of their morphological similarity to verbs of the transitive type, diverge from the set of verbs (+V) at a high level in base rules, since they never function as main verbs while verbs never function as prepositions. The morphological similarity of <+Vprs> to <+V> elements may be illustrated below. Thus the same phonological rules are applicable to both sets when these are followed by Os.

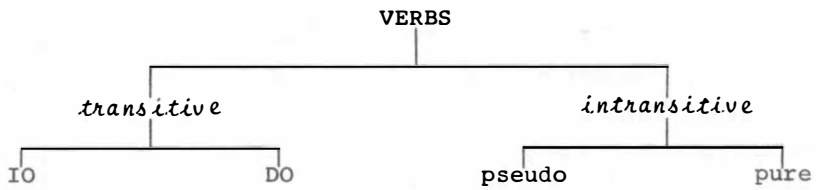
E 411	gali *'to'*	gali-yeyi	[ŋaliyey]	*'to me'*
		gali-xo	[ŋaluxU]	*'to you'*
		gali-ya	[ŋali]	*'to him'*
		gali-xica	[ŋaligic]	*'to us(incl)'*
		gali-xomami	[ŋalugumam]	*'to us(excl)'*
		gali-xomiyi	[ŋalugumi]	*'to you'*
		gali-yVre	[ŋali:r]	*'to them'*

For the syntax of verbal prepositions, see 4.7.5.

Verbs may be classified in many ways according to their morphological formations, subcategorisational or selectional feature composites, or transformational possibilities. No systematic attempt is made at an intensive classification of verbs covering all these features. In the following, only a broad division of verbs is made on the basis of contextual restrictions with regard to Os, direct object NP, and indirect object NP. A somewhat detailed discussion follows on the morphological structure of verbs.

Verbs may be classed into two large groups, one which may have Os, and the other which may not. The former may be called the transitive type, and the latter the intransitive type. The transitive type may further be subdivided into two groups, one which may co-occur with two object (direct and indirect) NPs, and the other which obligatorily occurs with a single (direct) object NP. The former may be called IO type, and the latter DO type. On the other hand, the intransitive type verbs may be subdivided into two groups, one which optionally occurs

with a direct object NP, and the other never occurring with any object NP. The former may be named the pseudo-type and the latter the pure-type. These subgroupings may be illustrated as below.



+Os, [+__NP NP]	+Os, [+__NP]	[±__NP]	[+__]
galle* *'give'*	yulemi *'drink'*	yule *'drink'*	yoxo *'possible'*
dogoro *'ask, borrow'*	fèèru *'do'*	faga *'send'*	loxo *'go'*
ddeyi *'deprive'*	xagi- *'eat'*	kaya *'tell'*	babiyoro *'write letters'*
	weri *'see'*	sèrè *'say'*	
		mogoyo *'eat'*	

*A dash indicates that the verb is obligatorily followed by an object suffix, otherwise only optionally.

FIGURE 11

A CLASSIFICATION OF VERBS

4.12.4. *INTRANSITIVE VERBS*

The most productive classification of intransitive verbs is according to <±Adj>, which is based on the adjectivisation possibility (see 4.10.). They may also be classified in the light of co-occurrence restrictions with different types of prepositional phrases. For example, verbs like mogoyo *'to eat'* cannot be followed by a preposition like gali *'to'* or mè *'from'* which occur with verbs having the <+direction> feature such as loxo *'to go'*, faga *'to send'*. The classification of these verbs is not attempted here however.

Five derivative morphemes associated with intransitive verbs have been found, one prefix and four suffixes.

(1) te- *'very, extremely'*

This morpheme is limited in occurrence to the verbs having the <+Adj> feature. For the obligatory permutation of a verb prefixed by this morpheme, see 4.10.4. Examples follow.

E 412 (a) te-coolopa *'very abundant'*
te-kkage *'very sharp'*
te-ṁutiyale *'very small (e.g. fish)'*
te-pallege *'very big'*
te-siilaye *'very old'*
te-wecici *'very small'*

(b) Te-tayikkofo se-male yaramata yiiyee.
a person this
'What a bad person this is!'

(2) -cix *'delicately, finely'*

This morpheme is not productive, occurring with a small subset of verbs.

E 413 dafa-cix *'extremely talkative'*
mata-cix *'make minute'*
talaga-cix *'listen minutely'*
tėė-cix *'always hear well'*

(3) -ffad *'for nothing, without result, profit, etc.'*

This morpheme is considerably productive, very frequently followed by cox *'just'* or loxo cox *'just'*.

E 414 ddare ffad cox *'run without profit'*
fitaa ffad loxo cox *'fish without result'*
kapatapata ffad loxocox *'talk without profit'*
loxo ffad *'go naked'*
mele ffad *'stay idly'*
ṁeṁee ffad *'seek without goggles'*
marooroo ffad loxo cox *'sit without communication'*
mogoyo ffad *'eat only one kind of food'*
yegaage ffad cox *'work without pay'*

(4) -ppat *'at random, continually'*

E 415 bulaase-ppat *'drunken continually'*
ddare-ppat *'run without request'*
falfala-ppat *'throw down coconuts freely'*
fedexe-ppat *'fight at random'*
mogoyo-ppat *'eat at random without request or payment'*
yegaage-ppat *'work at random'*

(5) -yex *'in the state of, always, already'*

This morpheme, which corresponds to a Marshallese verbal formative which can often be glossed "perfective" (Bender, personal communication), is limited in occurrence to a small subclass of intransitive verbs. So far, only the following examples have been found.

E 416 pileta-yex *'always shut, enclosed'*
Cf. Ye sa pileta-yex loxo.
'She has been enclosed.'

suuxu-yex *'be opened'*
Cf. Yi suuxu-ya xatama lee *'I opened this door'*
Xatama lee yilaa ye suuxu-yex.
fm
'This door is open.'

xafaga-yex *'already sent'*
?supi-tex *'cut already'* (cf. supi-ya *'to cut'*)
?wuxu-yex *'to blow (vi)'* (cf. xawuxu *'to blow'*)

Intransitive verbs are also formed from nouns with reduplication. Observe the following.

E 417					
	bisi	*'brother'*	:	bisbisi	*'to be in brother relation'*
	boxata	*'village'*	:	boxatxata	*'to use a village'*
	faluya	*'island'*	:	faluluya	*'to use an island'*
	mata	*'eye'*	:	mmata	*'to wake up'*
	pece	*'feet'*	:	pecpece	*'to use as feet'*
	pitexe	*'thing'*	:	pitextexe	*'to use things'*
	sifu	*'grass skirt'*	:	sifsifu	*'to wear a grass skirt'*
	soxo	*'stick'*	:	soxsoxo	*'to walk with a stick'*
	tama-	*'father'*	:	tamtama	*'to have as father'*
	waa	*'canoe'*	:	waawaa	*'to use a canoe'*
	yagi	*'wind'*	:	yagiyagi	*'to blow'*
	yiṁa	*'house'*	:	yiṁyiṁa	*'to use as a house'*

Some intransitive verbs with the feature <+Adj> may occur with final syllable reduplicated, in which case the meaning is *intensification.*

E 418					
	pallege	*'big'*	:	palleglege	*'very big'*
	rucuppugu	*'black'*	:	rucuppugpugu	*'very black'*
	taxiyata	*'high'*	:	taxiyatyata	*'very high'*

A great number of pseudo-type intransitive verbs appear only in reduplicated forms.

E 419		
	didii	*'to push'*
	dodoro	*'to catch'*
	doodoo	*'to massage'*

duxduxu *'to wrap'*
fagfaga *'to smoke (fish)'*
falfala *'to throw coconuts down'*
ṁeṁee *'to look for'*
paapaa *'to count'*
pixpixi *'to hit'*
rogrogo *'to hear'*
taptape *'to write, use'*

Examples of non-reduplicated pseudo-type intransitive verbs follow.

E 420 cagaxe *'to hang'*
dėrė *'to weave'*
ffėsė *'to call'*
lėbaaxe *'to hide'*
lule *'to roll'*
yidi *'to dip'*
yule *'to drink'*

Pseudo-type intransitive verbs are characterised by their co-occurability with an object NP which has the <-def> feature. By <-def> is meant that the NP does not include in its constituents such definiteness elements as a demonstrative enclitic, demonstrative proper, numerative compound (see *RR 4*). This selectional restriction distinguishes the subset of intransitive verbs from the set of transitive verbs.

E 421 (a) balle sukuun *'to inspect schools'*
*balle sukuun kalaa *'to inspect those schools'*
Cf. ballesi(-ya) sukuun kalaa *'to inspect those schools'*
*ballesi(-ya) sukuun

(b) kuku yaramata *'to bite persons'*
*kuku yaramata lee *'to bite this person'*
Cf. xusu-ya yaramata lee *'to bite this person'*
*xusu-ya yaramata

(c) pakki paabiya *'to shoot pigs'*
*pakki paabiya wee *'to shoot the pigs'*
Cf. pakki-ya paabiya wee *'to shoot the pigs'*
*pakki-ya paabiya

(d) yule luu *'to drink coconuts'*
*yule se-wo luu *'to drink a coconut'*
*yule luu lee *'to drink this coconut'*

Cf. yulemi(-ya) se-wo luu
yulemi(-ya) luu lee
*yulemi(-ya) luu

There are a few exceptions to the above generality of wide coverage. E 422 (a) and E 422 (b) are accepted by my informants. In both cases, the presence of the Os implies that the action of the verb is directed to the whole substance of the NP, while its absence (pseudo-intransitive) gives a partitive sense.

E 422 (a) fadė pėraase *'to plant rice'*
fadėxu-ya pėraase *'to plant the rice'*

(b) mogoyo se-wo màyi *'to eat a (part of) breadfruit'*
xagi-ya se-wo màyi *'to eat the whole of a breadfruit'*

4.12.5. *FORMATION OF TRANSITIVE-TYPE VERB STEMS*

In Ulithian, transitive verbs may be inherent, but in many cases transitive verbs are formed from intransitive verbs or nominals with the addition of certain transitivising elements. Besides, it is difficult in many instances to draw a line of division between parts of speech on the basis of morphological evidence alone. For example, ciifeli *'nail'* is a noun in a normal sense, but it also occurs as a pseudo-intransitive in Yi be ciifeli yiṁa *'I will nail houses'*. Furthermore, it can be a transitive stem as evidenced in Yi be ciifeli-ya yiṁa lee. *'I will nail this house'*. In the lexicon, therefore, ciifeli must be specified roughly in the following way.

ciifeli +N
+V, [+__NP<-def>]
+V, +Os, [+__NP<+def>]

On the other hand, yule *'to drink'* and yulemi *'to drink it'* have roughly the following lexical entries.

yule +V, +Adj (Cf. cale yule *'drinking water'*)
+V, [+__NP<-def>]
yulemi +V, ±Os, [+__NP<+def>]
(Cf. yulemi(-ya) cale lee *'drink this water'*)

From the morphological point of view, ciifeli may be classed as a transitive proper, but yulemi as a derived transitive. Thus, transitive verbs may be classified in the following way according to their derivative sources.

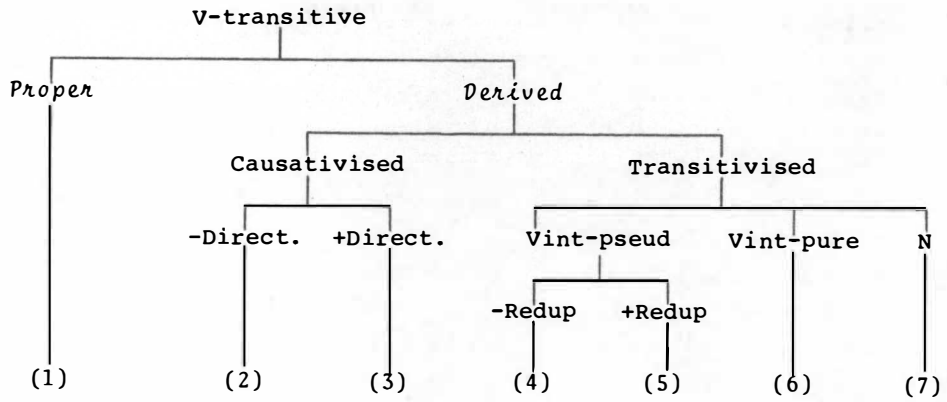


FIGURE 12

A SUBCLASSIFICATION OF TRANSITIVE VERBS

Examples follow.

E 423 (1)

bbulu	*'to dirty'*	cėlė	*'to suspend'*
dabe	*'to follow'*	dogoro	*'to ask, borrow'*
falixi	*'to tread on'*	faxo-	*'to pity'*
fėėru	*'to make'*	fisexi	*'to burn'*
galle-	*'to give'*	kamaaxo-	*'to watch'*
kassiya	*'to ask'*	kiliili	*'to clean'*
lixidi	*'to leave off'*	lli-	*'to kill'*
lusu-	*'to chew'*	mammagi	*'to remember'*
ṁeri	*'to find'*	paali-	*'to lead'*
supi	*'to cut'*	suuxu-	*'to open'*
tafa	*'to cut'*	tafeya	*'to apply medicine to'*
tape-	*'to use, need'*	taxace-	*'to let free'*
tepugi-	*'to help'*	tuxu	*'to hit'*
weri	*'to see'*	xabȯle	*'to miss'*
xagi-	*'to eat'*	xammayi	*'to love'*
xarepa	*'to approach'*	xola-	*'to reach'*
xula-	*'to know'*	yilidi	*'to share'*
yitoli	*'to put'*	yuru	*'to pull'*

E 424 (2) a. from intransitive verbs with <-Adj>

xabarėxo	*'to let dance'*	(<== barėxo *'to dance'*)
xabȧȧye	*'to make float'*	(<== bȧȧ *'to float'*)
xabboro	*'to bend'*	(<== bboro *'to be bent'*)

xaboobooli *'to make swell'* (<== booboo *'to swell'*)
xacapara *'to make believe'* (<== capara *'to believe'*)
xacappa- *'to turn over'* (<== cappa *'to turn over'*)
xacariwuriwa- *'to shine'* (<== xariwuriwa *'to shine'*)
xacugaxo *'to let shout'* (<== cugaxo *'to shout'*)
xaddala- *'to let dream'* (<== ddala *'to dream'*)
xaddėlė *'to illuminate'* (<== ddėlė *'to shine'*)
xaduubale *'to sink (person)'* (<== duubale *'to sink'*)
xaduuduu *'to clean'* (<== duuduu *'to bathe'*)
xafaxola- *'to grow'* (<== faxola *'to grow'*)
xafidfidi *'to grind'* (<== fidfidi *'to go around'*)
xakkugu *'to ring'* (<== kkugu *'to make noise'*)
xamadafa- *'to explain'* (<== madafa *'to be clear'*)
xamadare- *'to spread'* (<== madare *'to lie spread'*)
xamasėrė *'to let sleep'* (<== masėrė *'to sleep'*)
xamolo *'to finish'* (<== molo *'to be completed'*)
xaṁolo *'to hide'* (<== ṁolo *'to hide'*)
xappaca- *'to glue'* (<== ppaca *'to be stuck'*)
xaraxa- *'to let crawl'* (<== xaraxa *'to crawl'*)
xasuu- *'to erect'* (<== suu *'to stand'*)
xatafaale *'to let return'* (<== tafaale *'to return'*)
xataxulu *'to turn'* (<== taxulu *'to turn around'*)
xatowase *'to break'* (<== towase *'to be broken'*)
xatuxili *'to choose'* (<== tuxili *'to be sure'*)
xaweweele *'to consult on'* (<== weweele *'to result'*)
xayale *'to make fly'* (<== yale *'to fly'*)
xayeda *'to load'* (<== yeda *'to be loaded'*)
xayili *'to make dive'* (<== yili *'to dive'*)

b. from intransitive verbs with <+Adj>

xabbece- *'to whiten'* (<== bbece *'white'*)
xacage- *'to love'* (<== cage *'beloved'*)
xacalxara- *'to sweeten'* (<== calxara *'sweet'*)
xaccawu- *'to make heavy'* (<== ccawu *'heavy'*)
xacėccali- *'to redden'* (<== cėccaa *'red'*)
xacoolopa- *'to increase'* (<== coolopa *'many'*)
xalapa- *'to increase'* (<== lapa *'big, much'*)
xalėllaye- *'to lengthen'* (<== lėllaye *'long'*)
xamalawa- *'to make alive'* (<== malawa *'alive'*)
xammalawa- *'to widen'* (<== mmalawa *'wide'*)
xamommaye- *'to better'* (<== mommaye *'good'*)
xaṁocooco- *'to shorten'* (<== ṁocooco *'short'*)

xapallege- *'to make big'* (<== pallege *'big'*)
xaparagraga- *'to make yellow'* (<== paragraga *'yellow'*)
xarepiya- *'to make clever'* (<== repiya *'clever'*)
xarraye- *'to make happy'* (<== rraye *'happy'*)
xarucuppugu- *'to darken'* (<== rucuppugu *'dark'*)
xasiilaye- *'to make long, durable'* (<== siilaye *'long'*)
xasoopèya- *'to make clumsy'* (<== soopèya *'clumsy'*)
xataxiyata- *'to heighten'* (<== taxiyata *'high'*)
xateffoya- *'to make anew'* (<== teffoya *'new'*)
xattiri- *'to make fast'* (<== ttiri *'fast'*)
xawàárese- *'to make difficult'* (<== wàárese *'difficult'*)
xawecici- *'to make small'* (<== wecici *'small'*)

E 425 (3)

xabbulèlogo- *'to let crouch'* (<== bbulèlogo *'to crouch'*)
xaboldaxe- *'to begin'* (<== boldaxe *'to begin'*)
xabuudoxo- *'to let come'* (<== buudoxo *'to come'*)
xaciṁadaxe- *'to arise'* (<== ciṁadaxe *'to rise'*)
xadareloxo- *'to make walk'* (<== dareloxo *'to walk'*)
xaddaweloxo- *'to let go far away'* (<== ddaweloxo *'to go far away'*)

E 426 (4)

ballesi *'to inspect'* (<== balle *'to inspect'*)
cagaxeli *'to hang'* (<== cagaxe *'to hang'*)
dèrègu- *'to weave'* (<== dèrè *'to weave'*)
fadèxu *'to plant'* (<== fadè *'to plant'*)
ffèsègu *'to call'* (<== ffèsè *'to call'*)
lèbaaxeli *'to hide'* (<== lèbaaxe *'to hide'*)
yidifi *'to dip'* (<== yidi *'to dip'*)
yulemi *'to drink'* (<== yule *'to drink'*)

E 427 (5)

besi *'to untie'* (<== bebee *'to untie'*)
coxu *'to fish by net'* (<== cocoo *'to fish by net'*)
digi- *'to push'* (<== didii *'to push'*)
dipcixi- *'to cook with copra oil'* (<== dipcixi *'to cook with copra oil'*)
dixi- *'to sew'* (<== diddi *'to sew'*)
feledi *'to wave flags'* (<== felefele *'to wave flags'*)
fici- *'to knock at'* (<== ficfici *'to knock'*)

limi- *'to roll'* (<== lule *'to roll'*)
rogo- *'to hear'* (<== rogrogo *'to hear'*)
wedi- *'to wait'* (<== wedwedi *'to wait'*)

E 428 (6)

bàà̀xi- *'to float (it)'* (<== bàà *'to float'*)
bilidi *'to take off'* (<== bili *'to be off'*)
cugu *'to meet'* (<== cuu *'to meet'*)
ddarexili- *'to run with'* (<== ddare *'to run'*)
fadixili- *'to lay (eggs)'* (<== fadi *'to lay eggs'*)
yagasi *'to touch'* (<== yaga *'to reach'*)

E 429 (7)

dipali *'to want'* (<== dipa *'feeling'*)
doofi- *'to massage (him)'* (<== doodoo *'massage'*)
fawuxili *'to row for'* (<== fawu *'rowing stick'*)
lawuli *'to have as a child'* (<== lawu- *'child'*)
matali *'to have as eyes'* (<== mata *'eyes'*)
tareli *'to have as a band'* (<== tare *'band'*)
xumoculi *'to have as a fist'* (<== xumocu *'fist'*)
yalapadi- *'to lead to'* (<== yalapa *'road'*)

Alongside the classification on the basis of the derivative sources, transitive verbs may be classified according to the phonological shapes and position of the transitivisers. The division is made into the prefix, suffix, and zero types.

(1) Prefix

Causativiser xa- only belongs here. Examples have already been given. No allophonic variation is noticed in xa-.

(2) Suffix

Two subtypes are -xili and thematic -CV. -xili is not only a transitivising marker but has some meaning, mostly *'in favour of'* but occasionally *'against'*. Observe the examples in E 430.

E 430 (a) Ye be fawu<u>xili</u>-ya.
'He will row for him.'

(b) Yiṁa wee re dimalawa<u>xili</u>-yeyi mè yiiyage yilaa ye mele yixalaa.
give-birth-to me from there fm *stay there*

'The house in which I was born is over there.'

(c) Xa be ggataxili-yeyi bo yoor mata-li påwWu-yi
hurry-against exist head hand
lå yi be fedexe?
that fight
'Are you going to make haste against me though I have only my hands to fight with?'

(d) Sukuunuxili-ya yalo-li Meriken.
learn speech
'Study English!'

(e) Ye sa maxili-yeyi.
shame
'He feels shameful toward me.'

(f) Ye sa tteraxexili-ya Yasor.
sail
'He sailed to Yasor.'

(g) Yi xabòlexili-ya babiyoro wee yaa-yi we ye sa towase.
miss book mine broken
'I miss my book which has been broken.'

In spite of its lexical meaning, xili could not be considered a prepositional element for the following reasons: (a) it transitivises certain nouns (e.g. E 430 (a)); (b) when it follows a transitive verb (e.g. E 430 (g)), the NP following xili is the object of the verb, which fact indicates that xili is not a prepositional element; and (c) xili, unlike any preposition, is a close-bound morpheme in that the preceding verb does not lose the final vowel on the surface.

The other suffix type (thematic -CV) includes the following. No examples are found in which C in -CV is a stop. All the members of the thematic -CV subtype are purely transitivising markers except for -li which in many instances has the meaning *'action of possession'*. V in -CV is either i or u in (i-v) conditioned by the preceding vowel, i.e. i when the preceding vowel is a front vowel or a, otherwise u. In (vi-viii), the V is i.

(i) -li or -lu

E 431 matali *'to have as eyes'* (<== mata *'eye'*)
tamali *'to have as father'* (<== tama- *'father'*)
yawali *'to have as a mouth'* (<== yawa *'mouth'*)

	lawulu	*'to have as a child'*	(<== lawu- *'child'*)
	soolu	*'to search'*	(<== soosoo *'to search'*)
	wuṁulu	*'to cook'*	(<== wuṁu *'hearth'*)
	xamėėlu	*'to whistle (to him)'*	(<== xamėė *'to whistle'*)

(ii) -gi or -gu

E 432	digi-	*'to push'*	(<== didii *'to push'*)
	diligi-	*'to split'*	(<== diddili *'to split'*)
	kkiligi-	*'to dig'*	(<== kkili *'to dig'*)
	paagi-	*'to count'*	(<== paapaa *'to count'*)
	cugu-	*'to meet'*	(<== cuu *'to meet'*)
	dėrėgu-	*'to weave'*	(<== dėrė *'to weave'*)
	ffėsėgu	*'to call'*	(<== ffėsė *'to call'*)

(iii) -xi or -xu

E 433	bààxi-	*'to float'*	(<== bàà *'to float'*)
	cepexi-	*'to kick'*	(<== cepcepe *'to kick'*)
	dixi-	*'to sew'*	(<== diddi *'to sew'*)
	falexi-	*'to throw down (coconuts'*	(<== falfale *'to throw down'*)
	lewaxi-	*'to lick'*	(<== lewlewa *'to lick'*; lewa *'tongue'*)
	dėėxu-	*'to climb'*	(<== dėėdėė *'to climb'*)
	fadėxu-	*'to plant'*	(<== fadė *'to plant'*)
	ffėrėxu-	*'to bind'*	(<== ffėrė *'to bind'*)
	rooxu-	*'to take'*	(<== rooroo *'to take'*)

(iv) -di or -du

E 434	bilidi	*'to take it off'*	(<== bili *'to be off'*)
	feledi	*'to wave flag'*	(<== felfele *'to wave flag'*)
	wedi-	*'to wait'*	(<== wedwedi *'to wait'*)
	yalapadi-	*'to lead to (it)'*	(<== yalapa *'road'*)
	gudu-	*'to chew'*	(<== gugu *'to chew'*)
	ṁosodu-	*'to cut (rope)'*	(<== ṁosṁoso *'to cut (rope)'*)

(v) -si or -su

E 435	besi	*'to untie'*	(<== bebee *'to untie'*)
	ballesi	*'to inspect'*	(<== balle *'to inspect'*)
	xasi	*'to carry'*	(<== kakka *'to carry'*)
	yafesi	*'to pull'*	(<== yafyafe *'to pull'*)
	yagasi	*'to touch'*	(<== yaga *'to reach'*)

	xusu-	*'to bite'*	(<== kukku *'to bite'*)

(vi) -fi

E 436	doofi	*'to massage'*	(<== doodoo *'massage'*)
	dorofi	*'to catch'*	(<== dodoro *'to catch'*)
	yidifi	*'to dip'*	(<== yidi *'to dip'*)

(vii) -mi

E 437	duxumi-	*'to wrap'*	(<== duxduxu *'wrap'*)
	limi-	*'to roll'*	(<== lule *'to roll'*)
	sulumi-	*'to broil'*	(<== susulu *'to broil'*)
	yulemi	*'to drink'*	(<== yule *'to drink'*)

(viii) -ri

E 438	ṁeri	*'to look for'*	(<== ṁeṁee *'to look for'*)
	pixiri	*'to hit'*	(<== pixpixi *'to hit'*)

(3) *Zero*

All the other transitive stems which do not belong to (1) or (2) may be classed here. No formal transitivising markers are observed in the members of this class, but mostly they are obligatorily followed by an object suffix (+Os), which fact is indicated by a dash following each stem for convenience of reference. This dash will be replaced by an [+__Os] feature in each lexical entry. Any kind of vowel (except for short ȧ and ȯ) including geminates may serve as a stem final vowel: -i (e.g. lli- *'to kill'*, supi- *'to cut'*), -e (e.g. dabe- *'to accompany'*), -a (talaga- *'to listen'*), -o (faxo- *'to miss'*), -u (e.g. xėru- *'to shave'*), -ė (e.g. cėlė- *'to suspend'*), -oo (e.g. xaboo- *'to give tickle to'*).

4.12.6. *BOUNDARY BETWEEN TRANSITIVE AND PSEUDO-INTRANSITIVE*

The transitive and the pseudo-type intransitive verbs share a common feature in that both occur before an object NP. Apart from the morphological difference between the two sets which have been discussed thus far, they manifest some syntactic and semantic aspects characteristic of each set.

(1) In principle, all transitive stems (here included are verbal prepositions) occur obligatorily with an NP with <+def> feature, whether they are followed by Os or not.

E 439 yitoli (-ya) babiyoro lee — *'to keep this book'*
besi (-ya) yawu wee — *'to untie the line'*
cėlė (-ya) kaaxolo lee — *'to suspend this box'*
coxu (-ya) yixi lee — *'to catch this fish by net'*
fadixili (-ya) se-fase fadiya-li male — *'to lay a bird's egg'*
dimalawaxili (-ya) tarṁale wee — *'to give birth to the boy'*
xabedaya (-ya) yeliwici lee — *'to make this child fat'*
xabece (-ya) cale lee — *'to heat this water'*

A slight meaning difference exists between the presence and absence of Os. When it appears, the action of the verb is more directly and positively related to the following NP than in the case of its absence. Thus, yitoli-ya babiyoro lee has the meaning *'keep it, this book'* and yitoli babiyoro lee *'keep this book'*.

(2) An exception to the principle in (1) is that causativised transitive verbs may occur with <-def> NP if there is no Os present.

E 440 xabbula yafe *'to make a fire'*
xamolo yegaage *'to finish the work'*
xatafaale salapiya *'to return money'*
xabatabata pese *'to make the dog thirsty'*
xayilili waayili *'to have the submarine dive'*

(3) Pseudo-intransitive verbs occur in principle with <-def> NPs (for additional examples, see the examples in 4.12.4.).

E 441 bebee yawu *'to untie lines'*
fadė yiree *'to plant trees'*
cėlcėlė kaxoo *'to hang boxes'*
diddi magaaxu *'to sew clothes'*

The partitive sense of the exceptions to (3) has been mentioned.

E 442 Yi sa mommogoyo yucu we xala-yi.
'I was eating some of my bananas.'

4.13. NOUN DERIVATION

The most productive affixation in nouns is that of attributive suffixes. A detailed discussion of this process was made elsewhere (e.g. *PR 14* and 4.8.6.). Noun Phrases where some major types of nouns appear were also discussed. It will suffice in this section to give some derivative morphemes which have been found.

(1) yi- *'that, it'*

This morpheme has a kind of pronoun-like function, acting not only

as a bound stem but also as a kind of prefix.

E 443 yilaa *'that thing'* (yi- + laa (demonstrative enclitic))
yifaa *'which, what, where'* (yi- + faa (dem. enclitic))
yifaa- *'underside'* (yi- + faa- *'under'*)
yila- *'inside'* (yi- + la- *'in'*)
yiluxu *'backside'* (yi- + luxu *'back'*)

(2) too- *'skilled practitioner (occasionally in a pejorative sense)'*

E 444 too-faala *'joker telling the facts opposite to the truth'* (faala *'meaning, reason'*)
too-falfala *'canoe builder'*
too-fedexe *'fighter'*
too-fitaa *'fisherman'*
too-kamammele *'funny person'*
too-kapata *'speaker'*
too-liluwale *'thinker'*
too-waa *'canoe caretaker'*

(3) cȯȯ- *'person'*

coo-buucu *'crazy person'*
coo-metafisi *'blind man'*
coo-tagtagi *'a cry-baby'*
coo-tamaaye *'sick person'*
coo-tawogo *'bald-headed man'*

(4) re- (productive prefix indicating human beings)

E 445 re-latade *'people of the sea, navy, etc.'*
re-ṁale *'men'*
re-Meriken *'American'*
re-musuwee *'people of old days'*
re-sukuun *'people of the school, teachers, students, etc.'*
re-Yaap *'Yapese'*
re-yiiyaa *'person from where?'*
re-yixalakaa *'people of nowadays'*
re-Yulidiy *'Ulithian'*

(5) lika- *'a kind of game-like action'*

This prefix is a nominaliser, occurring always with a reduplicated verb. It is not productive.

E 446 lika-dadabe *'racing'* (dabe *'to run after'*)
lika-dodoro *'game-like diving'* (doro *'to dive'*)
lika-lutlutu *'jumping game'* (lutu *'to jump'*)

lika-ṁolṁolo *'hide and seek'* (ṁolo *'to hide'*)
lika-subsubu *'action of tattoo imitation'* (subu *'to tattoo'*)

(6) cayė- (a rare prefix indicative of flat surfaces, apparently related to cayė *'leaf'*)

E 447 cayė-cixcixi *'narrow, thin'*
cayė-lapala *'flat'*
cayė-laplapa *'wide, thick'*

(7) -lapa *'large, old, important'*

Lapa is also used as a verb with <+Adj> feature, which means *'big'* or *'enough'*. When used as a suffix, it is closely associated with the preceding element semantically as well as phonologically. Thus the final vowel of the preceding element does not drop.

E 448 luxulapa-li faluya *'backside of an island'*
ṁalelapa *'old man, uncle, grandfather'*
salapa *'excellent'* (sa- has no meaning)
or *'excellent person'* (e.g. se-male salapa *'an excellent person'*)
tamalapa *'true father'*
yulėėlapa *'old lady'* (yulėė- has no meaning)

(8) la-

This prefix seems to have been derived from the pseudo-prepositional la- *'in'*, but fossilised as a prefix. Thus, in re-latade *'people of the sea'*, la and tade *'sea'* constitute a unit noun stem.

E 449 labogo *'night, at night'* (bogo *'night'*)
lamaliyele *'morning, in the morning'* (maliyele *'morning'*)
lapalaliyolo *'evening, in the evening'* (palaliyolo *'evening'*)
latade *'sea, in the sea'*

4.14. SYNTACTIC REDUNDANCY RULES

In a departure from a general practice, syntactic redundancy rules are not included in the lexicon, since some rules (see *RR 1* and *RR 2*) have no lexical relevance. Rules like *RR 1* and *RR 2* may be called structural redundancy rules in contrast to lexical redundancy rules. The rules given below are far from being exhaustive, since no intensive study of various contextual (in particular, selectional) restrictions has been made covering all the data at hand. However, the following rules seem to be sufficient to provide the basic information necessary to maintain the consistency of the system of the grammar developed in

this study.

Chomsky (1965:165-8) distinguishes between universal and language-specific redundancies, stating that the former needs no specific statement in the grammar whereas the latter does. In the following, only those rules which are considered language-specific are presented. The rules are irrelevant as to order.

RR 1 V ⟶ <±Prog>

The aspect *action in progress* occurs with verbs of any kind. This aspect cannot be represented by means of a lexical category in that it does not dominate a fixed lexical form but is realised in infinitely varied ways, with one and the same grammatical meaning, according to the forms of the verbs with which it occurs. Furthermore, <±Prog> may not be specified in lexical entries unless a verb is given two lexical entries, one plain form and the other a reduplicated form. No examples have been found in which a verb (+V) cannot be reduplicated in the progressive sense. This fact also suggests that this aspect be handled by a structural redundancy rule. Although realisation of the structural feature <+Prog> on the surface is effected by means of reduplication, not all reduplicated forms are progressive. For the phonological processes, see PRs 15-17. The position of the reduplicated shapes of <+Prog> is that of a prefix. When it occurs with a causative prefix, it precedes the latter and through reduplication takes on an identical shape.

E 450 (a) <+Prog> + pallege *'big'* ==> pa-pallege *'to be growing big'*
Cf. palleglege *'big (with plural subject)'*

(b) <+Prog> + [xa- + paluya + Os]$_V$ + [yiir]$_{NP}$ + [loxo]$_{Dr}$
causative *navigate*

==> <+Prog> + ka- + paluya + yVre + loxo
==> ka + ka- + paluya + yVre + loxo
==> kkapaluyaar loxo *'to be teaching them to navigate'*

RR 2 NP ⟶ <±Emp> / Emp ... __

RR 2, which is another structural redundancy rule, assigns an emphasis feature to the category NP. Unlike <+Prog>, the feature <+Emp> is not realised as specific forms but is simply a transformation indicator. That NP which is positively specified by <Emp> is subject to permutation in a focus transformation. The reason that <±Emp> is assigned to an NP rather than to an N is that in focus transformation the focussed part is never a part but the whole of an NP. Consider E 451.

E 451 Emp + $[[yi\dot{m}a]_N$ $[-li]_{At}$ $[yaramata\ wee]_{NP}]_{NP}$ ye sa towase
destroyed

'The person's house has been destroyed.'

(1) ==> $[Yi\dot{m}a\text{-}li\ yaramata\ wee]_{NP}$ melee ye sa towase.
'It is the person's house that has been destroyed.'

(2) ==> $[Yaramata\ wee]_{NP}$ melee ye sa towase yiṁa-la.
'As for the person, his house has been destroyed.'

*(3) ==> $[Yi\dot{m}a]_N$ melee ...

*(4) ==> $[Yaramata]_N$ melee ...

RR 3 $\begin{bmatrix} +N \\ -Pro \\ -Dm \end{bmatrix} \longrightarrow$ <±SG>

Except for the pronouns and demonstratives proper, all nominals are either singular or plural. However, there is no formal difference on the surface between singular and plural in these nominals themselves, unless a following demonstrative enclitic indicates the number. Even if there is no such enclitic, it should be assumed that there is <±SG> distinction in deep structures, i.e. in each lexical entry. The existence of this covert feature may be evidenced in the following pairs of sentences.

E 452 (a1) Yiṁa-li yiitey makalaay?
$\begin{bmatrix} +N, -Pro \\ +Q, -Dm \\ +SG \end{bmatrix}$
'Whose(sg) houses are those?'

(a2) Yiṁa-yire yiitey makalaay?
<-SG>
'Whose(pl) houses are those?'

(b1) Yiṁa-li feefele malaay.
$\begin{bmatrix} +N, -Pro \\ -Q, -Dm \\ +SG \end{bmatrix}$
'That is a girl's house.'

(b2) Yiṁa-yire feefele ralaay.
<-SG>
'That is a girls' house.'

In E 452, the existence of plurality is reflected in the attributive suffix which has copied the features of the following noun. So far as no formal distinction is recognisable between <±SG> in a lexical item,

the lexical entries of the nominals with the features <+N>, <-Pro>, and <-Dm> may be assigned <±SG> by *RR 3*. In pronouns and demonstratives proper, plural forms are formally distinguished from their corresponding singular forms, thus not being subject to *RR 3*.

E 453 (a) [+N, +Pro]: gaag *'I'* vs. { xiic *'we(incl)'* / xaamami *'we(excl)'* }

(b) [+N, +Dm] : melee *'this'* vs. makaa *'these'*
yiiyee *'this'* vs. yikaa *'these'*

RR 4 $\left\{\begin{matrix}+\text{Cl}\\+\text{Nucl}\\+\text{Pro}\\+\text{Dm}\end{matrix}\right\} \longrightarrow$ <+def>

RR 4 assigns <+def>, i.e. definiteness, to those formatives which have a feature appearing on the left of *RR 4*: classifiers (possessive and numerative), pronouns, demonstratives proper, and demonstrative enclitics. It is necessary to define the range of <+def> formatives, because in general the class of transitive verbs occur only with the NP which contains a <+def> element.

RR 5 $\left\{\begin{matrix}+\text{Cl}\\+\text{Nucl}\\+\text{Q}\\+\text{Dm}\end{matrix}\right\} \longrightarrow [-\ \_\_\ \text{Dm}]$

RR 5 defines the range of formatives which may not occur before a demonstrative suffix, i.e. classifiers, interrogative words, and demonstratives proper. Examples of pronouns followed by Dm were given in 4.8.8.

RR 6 $\left\{\begin{matrix}+\text{Pro}\\+\text{Q}\\+\text{Dm}\end{matrix}\right\} \longrightarrow [-\ \_\_\ \text{ATT}]$

Pronouns, interrogative words, and demonstratives proper never occur before an attributive phrase. All the other nominals and numerative classifiers may occur in that position in certain syntactic environments. Any specific limitation in the occurrence of these formatives before ATT (e.g. yicuu- *'on'* occurs only before -li) must be so specified in each lexical entry.

RR 7 $[+\_\_\ \text{NP}_1\ \text{NP}_2] \longrightarrow [+\_\_\ \text{NP}_1]$

RR 8 $[-\_\_\ \text{Os},\ +\_\_\ \text{NP}] \longrightarrow [-\_\_\ \text{Os}]$

RR 9 $[+\_\_\ \text{PrepP}^*] \longrightarrow [+\_\_]$

*PrepP represents any kind of prepositional phrase.

RR 7 indicates that a transitive verb which may occur with an indirect and a direct object may also occur with an indirect object alone. RR 8 deals with the fact that any pseudo-type intransitive verb which has an object NP may occur without one. RR 9 states that an occurrence before a prepositional phrase implies an occurrence without one following. Observe the examples below.

E 454 (a) Yi be galle-ya yaramata laa.
'I will give to that person.'
Cf. Yi be galle-ya yaramata laa se-male xatuu.
'I will give the person a cat.'

(b) Ye sa yule.
'He drank.'
Cf. Ye sa yule luu.
'He drank coconuts.'

(c) Re sa loxo.
'They went.'
Cf. Re sa loxo sukuun.
'They went to school.'

CHAPTER V

TRANSFORMATIONAL SUBCOMPONENT

5.1. GENERAL

It is assumed that BRs *1-23* suffice to generate the basic structures underlying all kinds of major sentences of Ulithian. In this chapter are given the transformational rules necessary to the generation of appropriate surface structures. Unless otherwise indicated, these rules are ordered, apply cyclically, and are obligatory.

Transformations consist of four processes: adjunction, deletion, permutation, and substitution, whether the elements affected are categories, formatives, or features.

Feature copying processes are treated first (5.2.) separately from the other transformations (5.3.), since they have some distinct characteristics, particularly in dealing with agreement.

The following conventions are adopted.

(1) $\begin{bmatrix} \text{Pro} \\ \text{SP} \\ \text{HR} \\ \text{Ani} \\ \text{SG} \end{bmatrix}$ is abbreviated as **[SF]**

This convention is necessary for economy in rule formulation, since the syntactic features indicated most often behave as a unit in the process of feature copying or feature union as well as in their conversion into base forms by means of *PR 14*.

(2) $\text{NP} \longrightarrow \text{[xSF]} \;/\; \text{[X} \begin{Bmatrix} \text{N} \\ \text{NUC} \\ \text{S} \end{Bmatrix} \text{Y]}_{\text{NP}}$

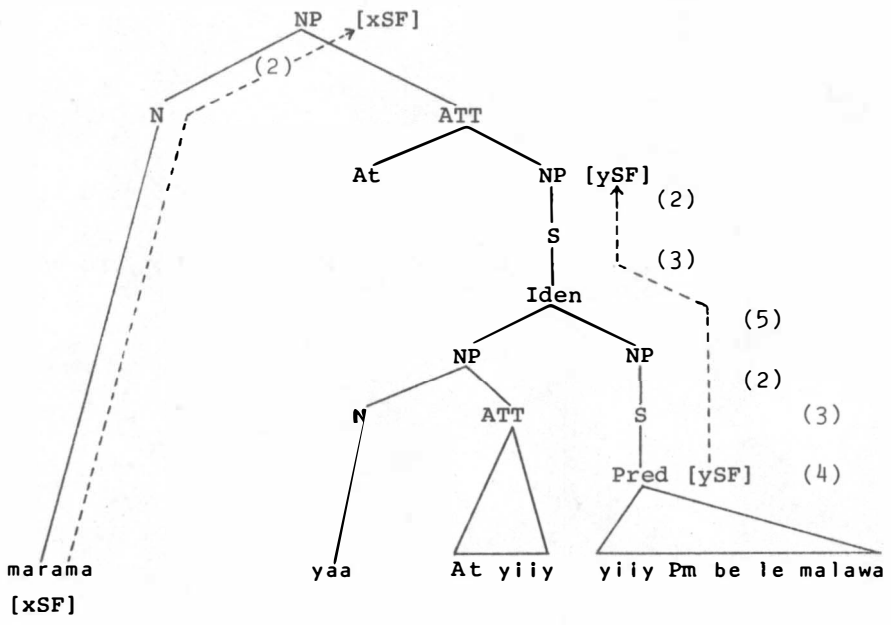
[xSF]

(3) $S \longrightarrow [xSF] \;/\; [X \begin{Bmatrix} Pred \\ Iden \end{Bmatrix}_{[xSF]} Y]_S$

(4) $Pred \longrightarrow \begin{bmatrix} -Pro \\ -SP \\ -HR \\ -Ani \\ +SG \end{bmatrix}$

(5) $Iden \longrightarrow [xSF] \;/\; [NP \frown NP]_{[xSF]} Iden$

Conventions (2)-(5) are adopted to assign syntactic features to NPs appearing in certain rules where the NPs are marked with [SF]. (2) states that NP is assigned the same feature composition as that of the N, NUC, or S that it dominates. (3) states that S is assigned the same feature composition as that of the Pred or Iden which it dominates. (4) assigns the indicated features to Pred. (5) assigns to Iden the same feature composition as that of the subject NP that it dominates. It is understood that N and NUC are assigned the features of the lexical items they dominate. Thus, for example, observe the feature assignment processes in the deep structure underlying the phrase marama-li yaa-la be le malawa *'the month in which she is going to give birth'*.



(6) i) $xF_1 \cup xF_1 = xF_1$ (where $F_1 \neq$ SG)

ii) $+F_1 \cup -F_1 = +F_1$

iii) $\pm SG \cup \pm SG = -SG$

This convention represents slightly modified set-theoretic unions. i) is an *Idempotent law*, i.e. $+F_1 \cup +F_1 = +F_1$ and $-F_1 \cup -F_1 = -F_1$; ii) states that the union of a positive feature and its negative counterpart results in the positive one (by a *Commutative law*, $+F_1 \cup -F_1 = -F_1 \cup +F_1$); and iii) states that the union of two <SG>s equals <-SG> regardless of their being + or -. For the laws of the algebra of sets, see Lipschutz (1964:104). For example, observe the union of the features of gaag *'I'* and yiiy *'he'*.

gaag		yiiy		
+Pro		+Pro		+Pro
+SP		-SP		+SP
-HR	U	-HR	=	-HR
+Ani		+Ani		+Ani
+SG		+SG		+SG

The resulting matrix is the same as that of xaamami *'we(excl)'*. Thus the Pm occurring with gaag mė yiiy *'I and he'* will copy the union of the two feature matrices (see *TR 1*), and *PR 14* will realise this union as xa, as in the case of the Pm which has copied the features of xaamami.

(7) X, Y, Z, W, or R = a category, a formative, or a sequence thereof, or zero.

(8) A disjunction in which the choice is between the presence and absence of an element or a string of elements is expressed by placing an asterisk (*) to refer to the absence (cf. Matthews 1965:29).

(9) Identity conditions (e.g. $NP_1 = NP_1$ in *TR 13*) presuppose identical reference.

I shall not introduce "indices" to indicate identical reference (see McCawley 1968:136 *et seq.*), since no particular advantage would result if such indices, which are basically nonlinguistic units, were used in this description of Ulithian.

5.2. AGREEMENT

It has been a tradition of TG to deal with agreement in grammar by *TR*s, although the details of rule formulation have varied somewhat among

linguists.[1] In this study also, rules of agreement are viewed as belonging to the transformational subcomponent. These rules will allow the three grammatical formatives, **Pm**, **At**, and **Os**, to copy specified features of the **NP** with which they enter into syntactic relation. The relevant features are associated with person, number, and animateness, plus <**Pro**>. For the discussions related to the feature copying, see 3.6.2. (*PR 14*), 4.4.2., 4.4.5., 4.8.6., 4.12.2.

Agreements such as existing between a classifier and the classified, between a subject and its main verb, between a verb and its object or a prepositional phrase, etc. are not dealt with, since such agreements are in terms of inherent semantic features (plus possibly "number") shared by both terms of each pair and no formal change of the items involved is effected, i.e. there is nothing transformational in them. Such agreements are to be treated in the semantic component.

TR 1 **Pm** *feature copying*

$$\text{SD: } X \quad NP_1 \quad \underset{[xSF]}{} \quad \left[\left\{ \begin{matrix} \{m\dot{e} \\ g\dot{e} \end{matrix} \right\} \left\{ \begin{matrix} \\ \\ xaree \end{matrix} \right\}_{con} \quad \begin{matrix} NP_2 \\ [ySF] \end{matrix} \right]_a \quad Pm \quad Y$$

$$1 \quad 2 \quad 3 \quad 4 \quad 5$$

$$\text{SC: } 1, \; [2 \; 3]_{NP} \; \left[\begin{matrix} [xSF \cup ySF] \\ [ySF] \\ [xSF] \end{matrix} \right]_a , \; 4 + \left[\begin{matrix} [xSF \cup ySF] \\ [ySF] \\ [xSF] \end{matrix} \right]_a , \; 5$$

TR 1 states that a **Pm** copies the features of the co-occurring **NP** or sequence of **NP**s. This rule allows for recursive application, since the union of two feature matrices will result in a single matrix which in turn may enter into a union relation with the feature matrix of another **NP**.

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[1] Postal (1964:43 *et seq.*) insists that any general statement of the agreement must be given in terms of the categories higher than individual morpheme sequences, which is not possible in the "Phrase Structure Grammar" framework but which is possible in TG where rules may be stated in terms of general categories. Thus Postal formalises an agreement *TR* concerning Spanish article-noun-adjective on the basis of high order categories, adjoining the Affix of a Noun to the Article constituent and to the Adjective constituent. Chomsky (1965:174-5), on the other hand, proposes a feature assignment treatment in dealing with some inflectional processes of German noun phrases. In much the same way, Jacobs and Rosenbaum (1968:130-5) handle the English agreement system in terms of features.

E 455 (a) [pese wee]$_{NP}$ Pm sa mese
dog dm TA *die*

$\begin{bmatrix}+N\\-Pro\\-SP\\-HR\\+Ani\\+SG\end{bmatrix}_{qSF}$ *'That dog died.'*

==> pese wee Pm sa mese
qSF $\begin{bmatrix}-Pro\\-SP\\-HR\\+Ani\\+SG\end{bmatrix}$

(b) [gaag]$_{NP_1}$ [mė]$_{con}$ [Ben]$_{NP_2}$ Pm loxo
I *go*

$\begin{bmatrix}+N\\+Pro\\+SP\\+SG\end{bmatrix}_{qSF}$ $\begin{bmatrix}+N\\-Pro\\-SP\\-HR\\+Ani\\+SG\end{bmatrix}_{rSF}$ *'Ben and I went.'*

==> gaag mė Ben Pm loxo
qSF rSF $\begin{bmatrix}+Pro\\+SP\\-HR\\-SG\end{bmatrix}$

(c) [gaag]$_{NP_1}$ [xaree]$_{con}$ [bisi- At gaag]$_{NP_2}$ Pm be loxo
brother TA

$\begin{bmatrix}+N\\+Pro\\+SP\\+SG\end{bmatrix}_{qSF}$ $\begin{bmatrix}+N\\-Pro\\-SP\\-HR\\+SG\end{bmatrix}_{rSF}$

'My brother and I will go.'

==> gaag xaree bisi- At gaag Pm be loxo
qSF rSF $\begin{bmatrix}-Pro\\-SP\\-HR\\+SG\end{bmatrix}$

TR 2 At & Os feature copying

SD: X $\begin{Bmatrix}At\\Os\end{Bmatrix}$ Y $\begin{bmatrix}NP\\[xSF]\end{bmatrix}$ Z where Y ≠ NP

1 2 3 4 5

SC: 1, 2 + [xSF], 3, 4, 5

An At and an Os copy the features of the following NP. Z in the SD may contain another NP but this is irrelevant.

E 456 (a) lawu- At [yulèèlapa kaa]$_{NP}$ [paabiya kawee]$_{NP}$
Cl *old woman* dm *pig* dm

$$\begin{bmatrix}+N\\-Pro\\+Ani\\-SG\end{bmatrix}_{qSF}$$

==> lawu- At yulèèlapa kaa paabiya kawee

$$\begin{bmatrix}-Pro\\+Ani\\-SG\end{bmatrix}\ qSF$$

'Those pigs belong to these old women.'

(b) xeel Pm mogoyo xala- At yiiy mè xala- At cila At yiiy
you *eat* *food* *he* *friend*

$$\begin{bmatrix}+N\\+Pro\\-SP\\-HR\\+Ani\\+SG\end{bmatrix}_{qSF} \qquad \begin{bmatrix}+N\\-Pro\\+Ani\\+SG\end{bmatrix}_{rSF}\ qSF$$

'You ate his and his friend's food.'

==> xeel Pm mogoyo xala- At yiiy mè xala- At

$$\begin{bmatrix}+Pro\\-SP\\-HR\\+Ani\\+SG\end{bmatrix}\ qSF \qquad \begin{bmatrix}-Pro\\+Ani\\+SG\end{bmatrix}$$

cila At yiiy

rSF $\begin{bmatrix}-Pro\\+Ani\\+SG\end{bmatrix}$ qSF

(c) raxe At Ben Pm melee lepada- At raxe At

$$\begin{bmatrix}+N\\-Pro\\+Ani\\+SG\end{bmatrix}_{qSF} \qquad \begin{bmatrix}+N\\-Pro\\-Ani\\+SG\end{bmatrix}_{rSF}$$

Tom mè feefele wee

$$\begin{bmatrix}+N\\-Pro\\+Ani\\+SG\end{bmatrix}_{sSF}$$

'Ben's age is between Tom and the woman.'

==> raxe At Ben Pm melee lepada- At raxe At

$$\begin{bmatrix}-\text{Pro}\\+\text{Ani}\\+\text{SG}\end{bmatrix}\ \text{qSF} \qquad \begin{bmatrix}-\text{Pro}\\-\text{Ani}\\+\text{SG}\end{bmatrix}\ \text{rSF}\ \begin{bmatrix}-\text{Pro}\\+\text{Ani}\\+\text{SG}\end{bmatrix}$$

Tom mė feefele wee

sSF

(d) yiiy Pm sa lli Os xatuu kalaa

kill *cat*

$$\begin{bmatrix}+\text{N}\\-\text{Pro}\\+\text{Ani}\\-\text{SG}\end{bmatrix}_{\text{qSF}}$$

'He killed the cats.'

(e) yiiy Pm sa xaxusu gali Os paddėlė kawee

set fire to *dry wood*

$$\begin{bmatrix}+\text{N}\\-\text{Pro}\\-\text{Ani}\\-\text{SG}\end{bmatrix}_{\text{qSF}}$$

'He set fire to the dead trees.'

==> yiiy Pm sa xaxusu gali Os paddėlė kawee

$$\begin{bmatrix}-\text{Pro}\\-\text{Ani}\\-\text{SG}\end{bmatrix}\ \text{qSF}$$

(f) yiir Pm sa weri Os gaag mė yiiy

$$\begin{bmatrix}+\text{N}\\+\text{Pro}\\+\text{SP}\\+\text{SG}\end{bmatrix}_{\text{qSF}}$$

'They saw me and him.'

==> yiir Pm sa weri Os gaag mė yiiy

$$\begin{bmatrix}+\text{Pro}\\+\text{SP}\\+\text{SG}\end{bmatrix}\ \text{qSF}$$

5.3. MAJOR TRANSFORMATIONS

TR 3 reduction of coordinate sentences (OP)

SD: $[X_1\ \ NP_1\ \ Y_1]_S \begin{bmatrix}\text{gė}\\\text{xaree}\end{bmatrix}_a [X_1\ \ NP_2\ \ Y_1]_S$

([xSF]) ([vSF]) ([ySF]) ([wSF])

SC: X_1 $[NP_1$ $\begin{bmatrix}\{\text{mė}\\ \text{gė}\}\\ \text{xaree}\end{bmatrix}_a$ $NP_2]_{NP}$ Y_1

$\begin{bmatrix}([\text{xSF U ySF}])\\ ([\text{xSF}])\end{bmatrix}_a$ $\begin{bmatrix}([\text{vSF U wSF}])\\ ([\text{wSF}])\end{bmatrix}_a$

condition: NP_1 and NP_2 are not pseudo-prepositionals.

Coordinate compound sentences connected by gė *'and'* or xaree *'or'* may be reduced to simple sentences if they meet the above structural description. If the environments (X_1 and Y_1) contain a Pm, Os, or At which has been assigned a syntactic feature matric by *TR 1* and *TR 2*, rearrangement of matrices is made as indicated. *TR 3* may be recursively applicable, since the derived NP sequence can again be placed as an input to the rule. Connector gė is normally changed to mė *'and'*, but remains unchanged if a phonological juncture precedes and follows it. For more discussions on *TR 3*, see 4.2.3.

E 457 (a) [gaag Pm $\begin{bmatrix}+\text{Pro}\\+\text{SP}\\-\text{HR}\\+\text{SG}\end{bmatrix}$ loxo]$_S$ gė [ruwė-male *2* Nucl $\begin{bmatrix}-\text{Pro}\\+\text{Ani}\\-\text{SG}\end{bmatrix}$ Pm loxo]$_S$

==> gaag mė ruwė-male Pm $\begin{bmatrix}+\text{Pro}\\+\text{SP}\\-\text{HR}\\-\text{SG}\end{bmatrix}$ loxo

'I and two persons went.'

(b) [yaa- Cl (gen) $\begin{bmatrix}+\text{Pro}\\+\text{SP}\\-\text{HR}\\+\text{SG}\end{bmatrix}$ At gaag babiyoro melee]$_S$ gė [yaa- At Coon *book* *this* $\begin{bmatrix}-\text{Pro}\\+\text{Ani}\\+\text{SG}\end{bmatrix}$

babiyoro melee]$_S$

==> yaa- $\begin{bmatrix}+\text{Pro}\\+\text{SP}\\-\text{HR}\\-\text{SG}\end{bmatrix}$ At gaag mė Coon babiyoro melee

'This is my and John's book.'

(c) [gaag Pm mogoyo yixi]$_S$ gė [gaag Pm mogoyo kumėėtiya]$_S$
fish *potato*

==> gaag Pm mogoyo yixi mė kumėėtiya
'I ate fish and sweet potatoes.'

(d) [yiiy Pm weri Os gaag]$_S$ gė [yiiy Pm weri Os

see [+Pro, +SP, -HR, +SG] [-Pro, +Ani, +SG]

yaramata wee]$_S$

person dm

==> yiiy Pm weri Os gaag mė yaramata wee

[+Pro, +SP, -HR, +Ani, -SG]

'He saw me and that person.'

(e) [Emp yiir Pm weri baarkoo]$_S$ xaree [Emp xeel Pm

<+Emp> [+Pro, -SP, -HR, +Ani, -SG] <+Emp> [+Pro, +HR, +SG]

weri baarkoo]$_S$

==> Emp yiir xaree xeel Pm weri baarkoo

[+Pro, +HR, +SG]

'It is they and you who saw the ship.'

(f) [xeel Pm dipali Os yiiyee]$_S$ xaree [xeel Pm dipali Os

[-Pro, -Ani, +SG] [-Pro, -Ani, +SG]

yilaa]$_S$

==> xeel Pm dipali Os yiiyee xaree yilaa

[-Pro, -Ani, +SG]

'Do you want this or that?'

TR 4 number shift (OP)

SD: X [* / {At, Os}]$_a$ NP <-Pro> [Pm / *]$_a$ Y

<-SG> <-SG>

1 2 3 4 5

SC: 1, <-SG> ==> <+SG>, 3, <-SG> ==> <+SG>, 5

Plural Pm, At, and Os elements are optionally changed to singular if the associated NP has the feature <-Pro>. Thus, re ==> ye; yire ==> li; and yVre ==> ya.
<+Pm> <+At> <+Os>

E 458 (a) yiiy Pm xataxace Os xece kawee [we]$_{Cmp}$ xece kawee
throw *rat* dm <-Pro>

Pm malawa
[-Pro, +Ani, -SG] *alive*

==> yiiy Pm xataxace Os xece kawee we xece kawee Pm malawa
OP [-Pro, +Ani, +SG]

'He threw those rats which were alive.'

(b) senseye kalaa Pm buu logo mė Meriken
teacher dm *come* dr
<-Pro> [-Pro, +Ani, -SG]

==> senseye kalaa Pm buu logo mė Meriken
OP [-Pro, +Ani, +SG]

'Those teachers came from America.'

(c) gaag Pm fisexi Os pese kawee
burn [-Pro, +Ani, -SG] <-Pro>

==> gaag Pm fisexi Os pese kawee
OP [-Pro, +Ani, +SG]

'I burnt those dogs.'

(d) yiṁa At pese kaa ==> yiṁa At pese kaa
[-Pro, +Ani, -SG] <-Pro> OP [-Pro, +Ani, +SG]

'house of these dogs'

Cf. surface structure + PR *14*:
yiṁa-yire pese kaa ==> yiṁa-li pese kaa
OP

TR 5 Pm *feature shift* (OP)

SD: X NP_1 [xaree]$_{con}$ NP_2 Pm Y

Pm: {<+SP>, <+HR>, <-SG>}

1 2 3 4 5 6

SC: 1, 2, 3, 4, [<+SP>, <+HR>, <-SG>]$_a$ Pm ==> [<-SP>, <-HR>, <+SG>]$_a$, 6

By *TR 1*, Pm copies the feature composition of the second NP if two NPs are connected by xaree *'or'*. *TR 5* states that different feature compositions of the Pm occurring in the above SD may optionally be neutralised into a matrix corresponding to 3rd per. sg. For example,

{yi, re, xa, ...} <+Pm> ====> ye <+Pm>

E 459 (a) Emp xeel xaree gaag Pm sa loxo

[+Pro, +SP, -HR, +SG]

==> Emp xeel xaree gaag Pm sa loxo
OP

[+Pro, -SP, -HR, +SG]

'You or I went.'

(b) gaag xaree xeel xaree yiir Pm weri baarkoo

[+Pro, -SG, -HR, -SG]

==> gaag xaree xeel xaree yiir Pm weri baarkoo
OP

[+Pro, -SG, -HR, +SG]

'I or you or they saw the ship.'

TR 6 reduction of sentences involving PrepPs, Mns, Mvs *and* Ints (OP)

SD: X_1 $\begin{bmatrix} \text{PrepP}_1 \\ \text{Mn}_1 \\ \text{Mv}_1 \\ \text{Int}_1 \end{bmatrix}_a$ Y_1 $[\text{gė}]_{\text{con}}$ X_1 $\begin{bmatrix} \text{PrepP}_2 \\ \text{Mn}_2 \\ \text{Mv}_2 \\ \text{Int}_2 \end{bmatrix}_a$ Y_1

1 2 3 4 5 6 7

SC: 1, [2 6] $\begin{bmatrix} \text{PrepP} \\ \text{Mn} \\ \text{Mv} \\ \text{Int} \end{bmatrix}_a$, 3

It is assumed that PrepP_1 and PrepP_2 should be different in types, i.e. in feature composition. Thus the two words sukuun and xaleesiyaa *'church'* in E 460 are dominated by PrepP but do not belong to different types, and thus are not subject to *TR 6* but to *TR 3*.

E 460 [gaag Pm be loxo [sukuun]$_{\text{PrepP}}$]$_S$ gė [gaag Pm be
<+loc>

loxo [xaleesiyaa]$_{\text{PrepP}}$]$_S$
<+loc>

==> [gaag Pm be loxo sukuun mė xaleesiyaa]$_S$

'I will go to school and church.'

For further discussion of *TR 6*, see 4.2.3., 4.4.7., 4.5.2. (E 98) and 4.7.2. Examples follow.

E 461 (a) yiiy Pm sube [mė yixaa]$_{\text{PrepP}}$ gė yiiy Pm sube [raxe wee]$_{\text{PrepP}}$
born from here *year* dm

==> yiiy Pm sube [mė yixaa raxe wee]$_{\text{PrepP}}$

'He was born here last year.'

(b) Imp xeel Pm kamaaxo Os yiiy [cox]$_{\text{Int}}$ gė Imp
watch *just*

xeel Pm kamaaxo Os yiiy [ṁo]$_{\text{Int}}$
for a while

==> Imp xeel Pm kamaaxo Os yiiy [cox ṁo]$_{\text{Int}}$

'Look at it just for a while!'

TR 7 TA *juxtaposition*

SD: X_1 TA Y_1 $[\text{gė}]_{\text{con}}$ X_1 TA Y_1
<-neg> <+neg>

1 2 3 4 5 6 7

SC: 1, 2, 6, 3

conditions: *1.* $[SD]_S \frown$ gė $\frown$ S
<+subord>

2. NP $\frown$ Cmp $\frown [SD]_S$

See 4.4.6. (E 76 - E 81) for related discussions.

E 462 (a) [mogoyo Pm be lapa gė mogoyo Pm te lapa]$_S$ gė
TA TA <+subord>
<-neg> <+neg>
will *not*

Emp gaag Pm towee mogoyo
ton't eat

==> mogoyo Pm be te lapa gė Emp gaag Pm towee mogoyo

'If the food is not enough, I won't eat.'

(b) yiiy [lå] [yiiy Pm be xagi Os yiiy gė yiiy Pm te xagi
eat

Os yiiy]$_S$ Pm te ma mmale
hb *possible*

==> yiiy lå yiiy Pm be te xagi Os yiiy Pm te ma mmale

'He must eat it.'

Cf. surface structure + *PR 14*:
Ye te ma mmale lå ye be te xagi-ya.

TR 8 post-ye Predication deletion

SD: X $Pred_1$ $[ye]_{con}$ $Pred_1$ PrepP Y
1 2 3 4 5 6

SC: 1, 2, 3, 5, 6

For a discussion related to *TR 8*, see 4.2.3. (E 20).

E 463 $[$yiir Pm loxo$]_{Pred_1}$ $[ye]_{con}$ $[$yiir Pm loxo$]_{Pred_1}$ [capPi
go *and so* *trunk*

At se-xaye xiliyewa]$_{PrepP}$
1 Nucl *a kind of*
"tree" *tree*

==> yiir Pm loxo ye capPi At se- xaye yiliyewa

'They went (and so) to the trunk of a "xiliyewa" tree.'

TR 9 yes-no question

SD: X Q Y Proposition Z

1 2 3 4 5

where 4 does not contain a word having $\begin{bmatrix}+Q\\+Emp\end{bmatrix}$

SC: {1, 3,4↘ , 5 if X ends in QY Proposition xaree *or*
1, 3,4↗ , 5 elsewhere

See 4.11.2. for detailed discussion.

E 464 (a) Q xeel Pm be loxo
TA *go*

==> xeel Pm be loxo↗
'Will you go?'

(b) Q yiiy Pm weri medaa
see *what*
$\begin{bmatrix}+Q\\-Emp\end{bmatrix}$

==> yiiy Pm weri medaa↗
'Did he see something?'

(c) [Q xeel Pm repiya]$_S$ [xaree]$_{con}$ [Q xeel Pm buucu]$_S$
clever *or* *crazy*

==> xeel Pm repiya xaree xeel Pm buucu↘
'Are you clever or crazy?'

TR 10 interrogative word (with <+Emp>) question

SD: X Q Emp [Y W Z]$_{Proposition}$ R
$\begin{bmatrix}+Q\\+Emp\end{bmatrix}$

1 2 3 4 5 6 7

SC: 1,3,4,5,6,7↘

See 4.11.2. for a detailed discussion.

E 465 (a) Q Emp [yaa- At xeel senseye]$_{NP}$ [yiitey]$_{NP}$
Cl(gen) $\begin{bmatrix}+Q\\+Emp\end{bmatrix}$

==> Emp yaa- At xeel senseye yiitey
$\begin{bmatrix}+Q\\+Emp\end{bmatrix}$

'Who is your teacher?'

(b) Q Emp yiiy Pm weri medaa
[+Q +Emp]

==> Emp yiiy Pm weri medaa
[+Q +Emp]

'What did he see?'

TR 11 focus

SD: X Emp Y NP_1 Z NP_2 ... R NP_n W where $n \neq 0$

<+Emp> <+Emp> <+Emp>

1 2 3 4 5 6 n-1 n n+1

SC: 1, 4 2, 6 2, ... n 2, 3, 4, 5, 6, ... n-1, n, n+1

conditions: 1. Integers, except for 1, preceding 2s are freely permutable.

2. Y, Z, ... R, W should contain at least a Vb or an NP not dominated by PrepP.

For related discussions, see 4.4.3., 4.8.10.2. (E 304), and 4.11.3.

E 466 (a) Emp [gaag mė yiiy]$_{NP}$ Pm sa loxo
<+Emp>

==> gaag mė yiiy Emp gaag mė yiiy Pm se loxo

'I and he went.'

Cf. a surface structure + *PR 14*:
Gaag mė yiiy melee xa sa loxo.
fm

(b) Emp yaa-]At]re-còò kalaay]$_{NP}$]$_{ATT}$ xabolbolo Pm [teffoya]$_{PP}$
Cl *people* *lamp* *new*
<+Emp>

==> re-còò kalaay Emp yaa- At re-còò kalaay xabolbolo Pm teffoya

'As for the people, their lamp is new.'

Cf. a surface structure + *PR 14*:
Re-còò kalaay Ø ye teffoya yaa-yire xabolbolo.
fm

(c) Emp Bexaw Pm sa +Prog mogoyo [wolo cox]$_{NP}$
<+Emp> <+Emp>*just*
turtle

[wòò At yaa- At yiiy [[yiiy Pm <+Prog> mele]$_S$]$_{NP}$]$_{PrepP}$

==> Bexaw Emp wolo cox Emp Bexaw Pm sa <+Prog> mogoyo wolo cox wòò At yaa- At yiiy yiiy Pm <+Prog> mele

'As for Bexaw, it was just turtles that she was eating for her living.'

Cf. a surface structure + *PR 14* + PRs *15* and *16*:

Bexaw Ø wolo cox melee ye sa mommogoyo wòò-li yaa-la
fm fm

memmele.

(d) Q Emp xeel Pm weri Os medaa
see [+Q, +Emp]

==> Emp xeel Pm weri Os medaa ↘ (by *TR 10*)

==> medaa Emp xeel Pm weri Os medaa ↘

'What did you see?'

Cf. a surface structure + *PR 14*:

Medaa melee xo weri-ya?
fm

For more examples, see 4.11.3.

TR 12 identical NP *deletion*

SD: [X NP_1 Y]$_S$ {At, ATT} NP_1 Z

1 2 3 4 5 6 7

SC: 1, 3, 4, 5, 6, 7

See 4.8.6.3. (1) for a detailed discussion.

E 467 [gaag Pm weri Os pese wee]$_S$ At [gaag] pese wee
NP_1

==> [Pm weri Os pese wee]$_S$ [At gaag]$_{ATT}$ [pese wee]
NP_1 NP_1

==> [Pm weri Os]$_S$ At gaag pese wee

'That dog is what I saw.'

Cf. surface structure + *PR 14*:

Weri-ya-yi pese wee.

TR 13 pronominalisation

SD: X NP_1 Y NP_1 Z

$\left\{\begin{matrix}\text{[xSF]}\\ \text{<xtime>}\end{matrix}\right\}$ $\left\{\begin{matrix}\text{[xSF]}\\ \text{<xtime>}\end{matrix}\right\}$

1 2 3 4 5

SC: 1, 2, 3, ANAPH, 5

$\left\{\begin{matrix}\text{[xSF]}\\ \text{<xtime>}\end{matrix}\right\}$

where ANAPH = $\left\{\begin{matrix}\text{[xSF]}\\ \text{<xtime>}\end{matrix}\right\}$ $\begin{cases}\text{yiiyage / } \left\{\begin{matrix}\text{<xtime>}\\ \text{[}\left\{\begin{matrix}\text{(Prp)(N}\frown\text{At)}\\ \text{<+loc>}\\ \text{(Vpr)}\end{matrix}\right\}\text{\_\_]}_{\text{PrepP}}\end{matrix}\right.\\ \text{<+Pro> U[xSF] otherwise}\end{cases}$

This rule defines the pronominalisation of the second NP when two NPs have identical reference. Recursive application of the rule pronominalises all the NPs that have identical reference except for the initial one. Pronominalisation is effected in two ways: yiiyage when the second NP is dominated by PrepP, and a pronoun (3rd person) elsewhere. For further discussion, see 4.4.3., 4.8.9.2. (E 282A), 4.9.2. (1), and 4.11.3. (E 375).

E 468 (a) re-cȯȯ kalaay Pm <+Prog> mogoyo gė re-cȯȯ kalaay
people dm

Pm <+Prog> sefeedele
talk

==> re-cȯȯ kalaay Pm <+Prog> mogoyo gė yiir Pm <+Prog> sefeedele

'The people over there are eating and talking.'

(b) yeliwici kaa Pm <+Prog> tuxu Os fagali yeliwici kaa
child dm *hit* *together*

==> yeliwici kaa Pm <+Prog> tuxu Os fagali yiir

'These children are hitting one another.'

(c) Q [piskaa lå [xeel Pm be cuwayi Os piskaa]$_S$]$_{NP}$
NP_1 *which* *buy* NP_1
spear

Pm be feda yaye
how Nucl
many

==> piskaa lå xeel Pm be cuwayi Os yiiy Pm be feda yaye

'How many spears are you going to buy?'

Cf. surface structure + PR *14*:
Ye be feda-yaye piskaa là xo be cuwayi-ya?

(d) Emp [yela- At [pese wee]$_{NP}$]$_{NP}$ Pm se-wo fiit
length *dog* dm *1* Nucl
<+Emp>

==> pese wee Emp yela- At pese wee Pm se wo fiit
(by *TR 11*)

==> pese wee Emp yela- At yiiy Pm se wo fiit

'As for the dog, its length is one foot.'

(e) yiiy Pm be le ṁeri Os se leboso là yixu At wolo
TA *search* *1* *place* *end* *turtle*

Pm towee ma yoor mė se leboso
ng hb *exist*

==> yiiy Pm be le ṁeri Os se leboso là yixu At wolo
Pm towee ma yoor mė yiiyage

'She is ready to look for a place where turtles exist limitlessly.'

Cf. surface structure + PR *14*:
Ye be le ṁeri-ya se leboso là ye towee ma yoor yixu-li wolo mė yiiyage.

TR 14 pronoun feature shift (OP)

SD: X NP$_1$ mė NP$_2$ Y
<+Pro> [xSF]
1 2 3 4 5

SC: 1, 2 U[xSF], 3, 4, 5

E 469 gaag mė rii At gaag]$_{NP_2}$ Pm loxo
NP$_1$ *spouse*
[+Pro, +SP, +SG] [-Pro, +Ani, +SG]

==> xaamami mė rii At gaag Pm loxo
we(excl)
[+Pro, +SP, -HR, -SG]
'I and my wife went.'

As a result of an application of the above rule, the surface form of E 469 is the same as that derived from the deep structure in E 470.

E 470 xaamami mė rii At gaag Pm loxo
we(excl)
'We(excl) and my wife went.'

TR 15 <Pro> *feature shift*

SD: X At NP Y
<-Pro> <+Pro>
1 2 3 4

SC: 1, <-Pro> $\overset{\text{At}}{\Longrightarrow}$ <+Pro>, 3, 4

See 4.8.6.2. for the related discussion.

E 471 Emp gaag Pm weri waa At yaramata wee
see <-Pro> <+Emp>

==> yaramata wee Emp gaag Pm weri waa At yaramata wee
<-Pro>

(by *TR 11*)

==> yaramata wee Emp gaag Pm weri waa At yiiy
<-Pro>

(by *TR 13*)

==> yaramata wee Emp gaag Pm weri waa At yiiy
<+Pro>

'As for the person, I saw his canoe.'

TR 16 PrV *permutation*

SD: X NP [Vpr NP]$_{PrV}$ Y
<-Pro> <+Pro>
1 2 3 4 5

SC: 1, 3, 4, 2, 5

See 4.7.5.1. for the related discussion.

E 472 yiiy Pm sa [kaya]$_{VB}$ dėdėė At luu [gali Os gaag]$_{PrV}$
ta *teach* *climbing* *coconut* *to*

==> yiiy Pm sa kaya gali Os gaag dėdėė At luu

'He taught me how to climb up a coconut tree.'

TR 17 subject NP postposition

SD: X NP Aux Y Vb $\{^{PrepP}_{*}\}$ Z

1 2 3 4 5 6 7

SC: 1, 3, 4, 5, $\left\{\begin{matrix}2 & 6\\ 6 & 2\end{matrix}\right\}$, 7

A subject NP is obligatorily postponed if not focussed and if the main verb is intransitive without any object NP following. See 4.4.3. for the related discussion.

E 473 (a) tarṁale laa Pm kkela
boy that strong
==> Pm kkela tarṁale laa
'That boy is strong.'

(b) Emp yela- At [bobawe lee]$_{NP}$ Pm se wo fiit
length <+Emp> *1* Nucl
==> bobawe lee Emp [yela- At yiiy]$_{NP}$ Pm se wo fiit
==> bobawe lee Emp Pm se wo fiit yela- At yiiy
'As for this bamboo, its length is one foot.'

(c) piis koor kalaay Pm buu doxo [mė Meriken]$_{PrepP}$
come dr *from*
==> Pm buu doxo piis koor kalaay mė Meriken
==> Pm buu doxo mė Meriken piis koor kalaay
'Those Peace Corps volunteers are from America.'

(d) [gaag mė Ben]$_{NP}$ Pm masėrė
sleep
==> Pm masėrė gaag mė Ben
'Ben and I slept.'

TR 18 At deletion

SD: X $\left\{\begin{matrix}NuCm\\ Qnt\end{matrix}\right\}$ At NP $\begin{bmatrix}+def\\ -SG\end{bmatrix}$ Y

1 2 3 4 5 where NuCm does not contain Ord

SC: 1, 2, 4, 5

See 4.8.7.2. (E 255-E 258) for the related discussion.

E 474 se male At xaamami ==> se male xaamami
1 Nucl *us(excl)* *'one of us'*

tèèt At yaramata kaa ==> tèèt yaramata kaa
some *person* dm *'some of these people'*

TR 19 appositive nominalisation

SD: X [[NP_1 NP_2]$_S$]$_{NP}$ Y

$\begin{bmatrix}\text{<+Pro>}\\ \text{<+Cl>}\\ \text{<+Nucl>}\end{bmatrix}_a$ $\begin{bmatrix}\text{<-Pro>}\\ \text{<-Cl>}\\ \text{<-Nucl>}\end{bmatrix}_a$

1 2 3 4 5 6

SC: 1, 2, 3, 5, 6

See 4.5.3. for the related discussion.

E 475 (a) yifaa [[[yiiy]$_{NP_1}$ [Loorob]$_{NP_2}$]$_S$]$_{NP}$
where *he*

==> [yifaa]$_{NP}$ [yiiy Loorob]$_{NP}$

'Where is Loorob?'

(b) gaag Emp [ruwè male]$_{NP}$ [[[lawu- At gaag]$_{NP_1}$ [pese]$_{NP_2}$]$_S$]$_{NP}$
2 Cl (animate)

==> gaag Emp [ruwè male]$_{NP}$ [lawu- At gaag pese]$_{NP}$

'As for me, I have two dogs (my dogs are two).'

(c) yiiy Pm cuwayi Os [[[se yaye]$_{NP_1}$ [piskaa]$_{NP_2}$]$_S$]$_{NP}$
buy Nucl *(long ob.)* *spear*

==> yiiy Pm cuwayi Os [se yaye piskaa]$_{NP}$

'He bought a fishing spear.'

TR 20 pronoun preposition

SD: X [NP_1 con NP_2]$_{NP}$ Y

[NP_1 * NP_2]$_{Iden}$

<-Pro> <+Pro>

1 2 3 4 5

SC: 1, 4, 3, 2, 5

See 4.8.10.2. (E 301) and 4.8.3. (E 207) for the related discussion.

E 476 (a) Pm loxo [[bisi At gaag]$_{NP_1}$ mė [gaag]$_{NP_2}$]$_{NP}$
<-Pro> *and* <+Pro>
'brother'

==> Pm loxo gaag mė bisi At gaag

'My brother and I went.'

(b) [[senseye]$_{NP_1}$ [gaag]$_{NP_2}$]$_{Iden}$

==> gaag senseye

'I am a teacher.'

TR 21 pronoun deletion (1)

SD: X $\begin{bmatrix} \{At \\ Os\} \\ * \\ Pm\ Y\ PP\ W \end{bmatrix}_a$ N <+Pro> $\begin{bmatrix} [xSF] \\ [ySF] \end{bmatrix}_b$ $\begin{bmatrix} * \\ Pm \\ * \end{bmatrix}_a$ Z

[xSF] [xSF]

1 2 3 4 5

where xSF ≠ ySF
and W = Ø or PrepP

SC: 1, 2, $\begin{bmatrix} Ø \\ (3) \end{bmatrix}_b$, 4, 5

See 4.4.3., 4.8.6.2., 4.9.2. (1), 4.9.5., and 4.11.3. (E 375) for the related discussion.

E 477 (a) paaga- At yiir Emp Pm xacagi Os yiiy
all of them

==> paaga- At Emp Pm xacagi Os
'Everybody loved her.'

Cf. a surface structure + *PR 14*:
Paaga-yire gė re xacagi-ya.
fm

(b) xiic Pm be loxo
we(incl)

==> Pm be loxo xiic (by *TR 17*)
==> Pm be loxo

'We will go.'

(c) Pm loxo gaag mė melwee bisi-At gaag

[+Pro +SP -HR -SG] [+Pro +SP -HR +SG] *that brother*

==> Pm loxo (gaag) mė melwee bisi- At

'I and that brother of mine went.'

Cf. surface structure + *PR 14*:
Xa loxo (gaag) mė melwee bisi-yi.

(d) [babiyoro At gaag mė Coon]$_{NP}$ [melee]$_{NP}$

[+Pro +SP -HR -SG] [+Pro +SP -HR +SG]

==> babiyoro At (gaag) mė Coon melee

'This is a book about John and me.'

(e) Pm mommaye yiiy lå yaramata wee Pm tay lli Os male wee

[+Pro -SP -HR +SG] [+Pro -SP -HR +SG] *person* ng *kill* *bird*

==> Pm mommaye lå yaramata wee Pm tay lli Os male wee

'It is good that the person didn't kill the bird.'

TR 22 pronoun deletion (2)

SD:	X	NP	Cmp	[Y	NP	Z]$_S$	W
		[xSF]			[+Pro xSF]		
	1	2	3	4	5	6	7

SC: 1, 2, 3, 4, 6, 7

See 4.8.9.2. (E 282A) and 4.9.2. (1) for the related discussion.

E 478 pese kaa lå lawu- At gaag pese kaa ==> pese kaa lå lawu- At gaag yiiy ==> pese kaa lå lawu- At
'my dogs'

TR 23 yiiyage *deletion*

SD: X [* yiiyage <+time>] Y
{ Vpr / bo / NP <+loc> } yiiyage
a

1 2 3 4

SC: 1, [(3) / (3) / 3]a , 4

See 4.11.3. and 4.7.9. for the related discussion.

E 479 (a) xeel Emp Pm yegaage yado wee we gaag Emp Pm
you work time <+time>
duuduu [yiiyage]$_{PrepP}$ [latade]$_{PrepP}$
bathe sea

==> xeel Emp Pm yegaage yado wee we gaag Emp Pm duuduu (yiiyage) latade

'You worked while I was taking a bath in the sea.'

(b) Emp xeel Pm tagi bo medaa↘
cry for what <+Emp>

==> medaa Emp Pm tagi bo yiiyage↘

==> medaa Emp Pm tagi yiiyage↘

'What do you cry for?'

(c) Emp sulu wo mayiyel Pm towee yoxo [gali]$_{Vpr}$ cayėlapa At yiiy
ng *possible to* *width* <+Emp>

==> cayėlapa At Emp Pm towee yoxo sulu wo mayiyel gali yiiyage

==> cayėlapa At Emp Pm towee yoxo sulu wo mayiyel (yiiyage)

'As for its width, it is less than three miles.'

Examples to which the above rule does not apply follow.

(d) Emp yiiy Pm mele yiiyaa↘
live where <+Emp>

==> yiiyaa Emp Pm mele yiiyage↘
<+place>

'Where does he live?'

(e) $[\text{yixaa}]_{NP}$ $[\text{leboso lȧ gaag Pm sube } [\text{mė leboso}]_{PrepP}]_{NP}$
Cmp

==> yixaa leboso lȧ Pm sube mė yiiyage

'Here is the place where I was born.'

TR 24 imperative (Pm *deletion*) (OP)

SD:	Imp	Pm	PP	X
		[+HR, +SG]		
	1	2	3	4

SC: 3, 4

See 4.11.1. for the detailed discussion.

E 480 (a) Imp xeel Pm kassiya Os Ruxurimar

==> Imp Pm kassiya Os Ruxurimar

==> kassiya Os Ruxurimar

'Ask Ruxurimar!'

(b) Imp xeel Pm $[\text{tė kalla doxo}]_{PP}$
for a moment look hither

==> Imp Pm tė kalla doxo

==> tė kalla doxo

'Look here for a moment!'

TR 25 imperative (Imp *deletion*)

SD:	Imp	X	Pm	Y
			<+HR>	
	1	2	3	4

SC: 2, 3, 4

It should be noted that imperative transformation is relevant only for Predication sentences where Pm has the feature <+HR>.

E 481 (a) Imp xaamiyi Pm sa talega Os yiiy
you(pl) ta *listen*

==> Imp Pm sa talega Os yiiy

==> Pm sa talega Os

'You(pl). Listen!'

Cf. surface form + PR *14*: Xa sa talega-ya.

(b) Imp xiic Pm sa loxo
we(incl)

==> Imp Pm sa loxo

==> Pm sa loxo

'Let's go!'

Cf. Si sa loxo.

TR 26 3rd person singular Pm *deletion (1)* (OP)

SD: X $\begin{bmatrix} \text{NP (Emp)} \\ * \end{bmatrix}_a$ $\begin{bmatrix} +\text{Pm} \\ -\text{SP} \\ -\text{HR} \\ +\text{SG} \end{bmatrix}$ $\begin{Bmatrix} \text{TA} \\ \text{Mv} \end{Bmatrix}$ $\begin{bmatrix} * \\ \text{W PP Y NP} \end{bmatrix}_a$ Z

1 2 3 4 5 6

SC: 1, 2, 4, 5, 6

The 3rd per. sg. Pm (ye) is optionally deleted if a subject NP is present in the sentence and if the Pm is followed by a TA or Mv particle.

E 482 (a) Pm sa loxo [Motixtix]$_{NP}$
$\begin{bmatrix} -\text{SP} \\ -\text{HR} \\ +\text{SG} \end{bmatrix}$ TA

==> sa loxo Motixtix

'Motixtix went.'

(b) re-Moxmox Emp Pm tay mommaye dipa At yiir
TA *good feeling*

==> re-Moxmox Emp tay mommaye dipa At

'The Mogmog people were not happy.'

(c) bulaxa Emp Pm ma xakkela yaramata
taro Mv *make strong*

==> bulaxa Emp ma xakkela yaramata

'Taro makes men strong.'

TR 27 3rd person singular Pm *deletion (2)* (OP)

SD: # $\begin{bmatrix} +\text{Pm} \\ -\text{SP} \\ -\text{HR} \\ +\text{SG} \end{bmatrix}$ $\begin{bmatrix} +\text{N} \\ +\text{Dm} \end{bmatrix}$ X gė Y

1 2 3 4 5 6

SC: 1, 3, 4, 5, 6

For the detailed discussion, see 4.3.4. (E 25 and E 26).

E 483 yiiy Pm yiwee cox gė yiiy Pm sa tagi

[+N, +Dm]

==> Pm yiwee cox gė Pm sa tagi

'Just then he cried.'

TR 28 gė *deletion* (1) (OP)

SD: # [+N, +Dm] X [gė]$_{con}$ S where X = Int or ø

1 2 3 4 5

SC: 1, 2, 3, 5

For a related discussion, see 4.3.4. (E 25 and E 26).

E 484 yiwee gė Pm sa kaya gali Os

[-SP, -HR, +SG] *tell to* [-SP, -HR, +SG]

==> yiwee Pm sa kaya gali Os

'Then he taught him.'

TR 29 gė *deletion* (2) (OP)

SD: X Pm Y gė Pm Z where Y does not contain Pm

[xSF] [xSF]

1 2 3 4 5 6

SC: 1, 2, 3, 5, 6

If two predication markers on both sides of gė *'and'* have identical features, gė may optionally be dropped.

E 485 lefeecixi wee Emp Pm lutu daxe gė Pm sa xapatapata

girl dm [-SP, -HR, +SG] *jump up* [-SP, -HR, +SG] *talk*

gali Os ṁale wee

to *man*

==> lefeecixi wee Emp Pm lutu daxe Pm sa xapatapata gali Os ṁale wee

'Leaping up, the girl spoke to the man.'

TR 30 predication reduction

SD: [X Pm Y_1 $\left\{\begin{matrix} Vb_1 \\ \\ \text{la} \\ \text{buu doxo} \end{matrix}\right\}$ $Z_1]_S$ Pm Y_1 Vb_1 Z_1

[xSF] [xSF]

1 2 3 4 5 6 7 8 9

SC: 1, 2, 3, 4, 8, 5

This rule deals with two things: (1) verb iteration, as in E 486;

E 486 (a) Pm sa dare loxo gė Pm sa dare loxo

$\begin{bmatrix} -SP \\ -HR \\ +Ani \\ -SG \end{bmatrix}$ $\begin{bmatrix} -SP \\ -HR \\ +Ani \\ -SG \end{bmatrix}$

==> Pm sa dare loxo dare loxo

'They walked and walked.'

(b) Pm tuxu yaramata wee gė Pm tuxu Os yaramata wee

$\begin{bmatrix} +SP \\ +SG \end{bmatrix}$ $\begin{bmatrix} +SP \\ +SG \end{bmatrix}$

==> Pm tuxu Os tuxu Os yaramata wee

'I hit and hit the person.'

(2) la *'to go, to become'* or buu doxo *'to come'* followed by another verb as in E 487.

E 487 (a) Pm be le loxo gė Pm be le kamaaxo barėxo

$\begin{bmatrix} +SP \\ +SG \end{bmatrix}$ TA $\begin{bmatrix} +SP \\ +SG \end{bmatrix}$

==> Pm be le la kamaaxo Os barėxo

'I will go and watch the dance.'

(b) [Pm la $]_S$ Pm buu doxo mė yiiyaa

$\begin{bmatrix} +HR \\ +SG \end{bmatrix}$ *become, manage to* $\begin{bmatrix} +HR \\ +SG \end{bmatrix}$ *from where*

==> Pm la buu doxo mė yiiyaa

'Where did you manage to come from?'

(c) yulėėlapa wee Emp Pm sa buu doxo gė Pm sa mogoyo

old woman $\begin{bmatrix} -SP \\ -HR \\ +SG \end{bmatrix}$ *come* dr $\begin{bmatrix} -SP \\ -HR \\ +SG \end{bmatrix}$

==> yuleelapa wee Emp Pm sa buu doxo mogoyo

'The old woman came and ate.'

Note that, in the sense of *'to go'*, la is an allomorph of loxo, occurring only when directly followed by another verb.

TR 31 anaphoric Os *adjunction* (OP)

SD: X V Os $\begin{bmatrix}\text{Dad}\\ \text{Dr}\end{bmatrix}_{\text{DIR}}$ Y

1 2 3 4 5

SC: 1, 2, $\begin{bmatrix}(3)\\ \emptyset\end{bmatrix}_{a}$, 4, 3, 5

See 4.6.5.2. and 4.6.5.3. (2) for the related discussion.

E 488 (a) yiir Pm xammayu Os fagali yiir
they love each other Dad

==> Pm xammayu Os fagali ==> Pm xammayu (Os) fagali Os

'They love each other.'

Cf. Re xammayu(-yVre) fagali-yVre.

(b) xadare Os [loxo]$_{Dr}$ gaag ==> xadare loxo Os
make walk *'to let me walk away'*

Cf. xadare loxo -yeyi

TR 32 anaphoric Dr *adjunction* (OP)

SD: X Dr Os Y
1 2 3 4

SC: 1, 2, 3, 2, 4

See 4.6.5.2. for the related discussion.

E 489 Pm be xapugu Os diye yiir ==> Pm be xapugu diye Os
$\begin{bmatrix}+\text{SP}\\ +\text{SG}\end{bmatrix}$ *let fall* Dr

==> Pm be xapugu diye Os diye *'I will make them fall.'*

Cf. Yi be xapugu diye-yVre diye.

TR 33 Dr-Int *preposition*

SD: [X N At NP $\begin{Bmatrix}\text{Dr}\\\text{Int}\end{Bmatrix}$ Y]$_{NP}$

1 2 3 4 5 6

SC: 1, 2, 3, 5, 4, 6

See 4.8.4.1. for the related discussion.

E 490 paaga- At xece kawee [loxo]$_{Dr}$
all *rat*

==> paaga- At loxo xece kawee *'all those rats'*

Cf. paaga-yire loxo xece kawee; paaga-li loxo xece kawee

TR 34 *anaphoric* ma (hb) *adjunction* (OP)

SD: X ma Mv Y
1 2 3 4

SC: 1, 2, 3, 2, 4

See 4.4.7. (E 89) for a related discussion.

E 491 Pm sa ma rool fitaa
$\begin{bmatrix}\text{-SP}\\\text{-HR}\\\text{+Ani}\\\text{-SG}\end{bmatrix}$ *alto-gether* *fishing*

==> Pm sa ma rool ma fitaa

'They would altogether go fishing.'

TR 35 Dr-Dad *permutation* (OP)

SD: X Dr Dad Y
1 2 3 4

SC: 1, 3, 2, 4

See 4.6.5.1. for the related discussion.

E 492 cuu [doxo]$_{Dr}$ [fagali]$_{Dad}$
meet *together*

==> cuu fagali doxo

'to come together'

TR 36 *attributive "head-S type" nominalisation*

SD: X[Pm [xSF] (te) V [(DIR) *]$_a$ (Os) [-Pro +SG] [* (DIR)]$_a$ (Int)]$_S$ At [xSF] Y

1 2 3 4 5 6 7 8 9 10 11

SC: 1, 3, 4, 5, 6, 10, 7, 8, 11

See 4.8.6.3. (1) and 4.12.2. (E 407) for the related discussion.

E 493 (a) [Pm [ddare]$_V$]$_S$ At ==> ddare At
[+SP +SG] *run* [+SF +SG] *'my going'*

Cf. ddare-yi

(b) [[Pm [xabuu]$_V$ [doxo]$_{DIR}$ Os]$_S$ At]$_{NP}$ [yeliwici lee]$_{NP}$
[+HR +SG] *let come* [+HR +SG] *child* dm

==> xabuu doxo Os At yeliwici lee

'This child is the one who you let come.'

Cf. Xabuu-doxo-ya-mu yeliwici lee.

(c) [[yaramata lee Pm te pedi- Os [diye]$_{DIR}$ luu lee]$_S$
[-Pro +SG] ng *throw* [-Pro +SG] *coconut*

At yaramata lee]$_{NP}$ [luu lee]$_{NP}$
[-Pro +SG]

==> (by *TR 12*) Pm te pedi- Os diye At yaramata lee luu lee
==> te pedi- Os At diye yaramata lee luu lee

'This coconut is not what the man has thrown down.'

Cf. Te pedi-ya-li diye yaramata lee luu lee.

TR 37 "appositive-S type" nominalisation

SD: X [yaa- [xSF] At Y]$_{NP}$ [[Pm [xSF] Z]$_S$]$_{NP}$ W

1 2 3 4 5 6 7 8

SC: 1, 2, 3, 4, 6, 8

See 4.4.3. and 4.8.6.3. (2) for the related discussion.

E 494 (a) [yaa- At yaramata kawee]$_{NP}$ [yaramata kawee Pm be buu doxo]$_S$ ==> [yaa- At yaramata kawee]$_{NP}$ [Pm ta *come*

Cl (gen) [-Pro +Ani -SG]

[-Pro +Ani -SG]

be buu doxo]$_S$ ==> yaa- At yaramata kawee be buu doxo

'those people's coming'

(b) [marama At yaa- At yiiy]$_{NP}$ [yiiy Pm be le malawa]$_S$

month [-Pro -SP -HR -Ani +SG] [+Pro -SP -HR +SG] [+Pro -SP -HR +SG] ta *give birth*

(conventions 2-5 in 5.1.)

==> marama At yaa- At be le malawa

'the month in which she would give birth'

Cf. marama-li yaa-la be le malawa

TR 38 adjectivisation (OP *in* 1 *and* 2; OB *in* 3)

SD: X [Nm / Nm Dm]$_a$ NP [lȧ / {lȧ we}]$_a$ Cmp [(1) * * N <+Adj> / (2) Pm * V <+Adj> / (3) Pm Δ[(mė) NP]$_{PrepP}$ <+loc>]$_S$ Y

1 2 3 4 5 6 7 8

SC: 1, [2 6]$_{NP}$, 8

See 4.10. for the detailed discussion.

E 495 (a) [[ppiya]$_{NP}$ [lȧ]$_{Cmp}$ [fasamaxa ppiya]$_S$]$_{NP}$ [melee]$_{NP}$

pebble *beach* *this*

<+Adj>

==> ppiya fasamaxamelee

'This is a pebble beach.'

(b) [yiṁa At xeel]$_{NP}$ [yiṁa laay [lȧ] [yiṁa Pm mommaye]$_S$]$_{NP}$

Cmp

==> [yiṁa At]$_{NP}$ [yiṁa laay lȧ [Pm mommaye]$_S$]$_{NP}$

==> [yiṁa At]$_{NP}$ [yiṁa laay mommaye]$_{NP}$

'That good house is your house.'

Cf. Yiṁa-mu yiṁa mommaye laay.

(c) yiir [lå]$_{Cmp}$ yiir Pm Δ mė luwėlu At feefele kawee Pm tammaye
they *among* *woman* *sick*

==> yiir mė luwėlu At feefele kawee Pm tamaaye

'Of those women, those (indicated) are sick.'

Cf. Yiir mė luwėlu-yire feefele kawee re tamaaye.

TR 39 Dm *postposition*

SD: X Nm Dm $\left\{ \begin{matrix} N \\ V \end{matrix} \right\}$ Y
<+Adj>

1 2 3 4 5

SC: 1, [2 4]$_{Nm}$, 3, 5

See 4.10. for the related discussion.

E 496 (a) [yiṁa At]$_{NP}$ $\begin{bmatrix} +HR \\ +SG \end{bmatrix}$ [[yiṁa]$_{Nm}$ [laay]$_{Dm}$ [mommaye]$_{V}$]$_{NP}$
<+Adj>

==> yiṁa At yiṁa mommaye laay

'That good house is yours.'

(b) [[[[xatuu]$_{Mn}$ [lee]$_{Dm}$ [[lå]$_{Cmp}$ [Pm pallege]$_{S}$]$_{COM}$]$_{NP}$ [[lå]$_{Cmp}$
cat *big*

[Pm bbece]$_{S}$]$_{COM}$]$_{NP}$ [[lå]$_{Cmp}$ [Pm kkela]$_{S}$]$_{COM}$]$_{NP}$
white *strong*

==> [xatuu lee pallege]$_{NP}$ lå Pm bbece lå Pm kkela

==> [[xatuu pallege]$_{Nm}$ [lee]$_{Dm}$]$_{NP}$ lå Pm bbece lå Pm kkela

==> [xatuu pallege lee bbece]$_{NP}$ lå Pm kkela

==> xatuu pallege bbece lee lå Pm kkela

==> xatuu pallege bbece lee kkela

==> xatuu pallege bbece kkela lee

'this big, white, strong cat'

TR 40 Mv te *'very, extremely' permutation*

SD: # $\left\{ X \left[\begin{matrix} Nm \\ Nm\ Dm \end{matrix} \right]_a \right\}_{NP}$ $\left[\begin{matrix} lå \\ \{lå \\ we\} \end{matrix} \right]_a$ Pm te V <+Adj> Y

1 2 3 4 5 6 7

SC: 1, 5, 6, 2, 7

See 4.10.4. (E 350) for the related discussion.

E 497 [se male yeliwici [lå] Pm te tayikkofo]$_{NP}$ [yiiyee]$_{NP}$
1 Nucl *child* Cmp *bad* *this*

==> te tayikkofo se male yeliwici yiiyee

'What a bad child this is!'

TR 41 Cmp *deletion* (OP)

SD: X Dm $\{lå \atop we\}_{Cmp}$ Y

1 2 3 4

SC: 1, 3, 4

E 498 (a) [lawu- At gaag]$_{NP}$ [pese lee [lå]$_{Cmp}$ Pm pallege]$_{NP}$
Cl(ani) *dog*

==> lawu- At pese lee Pm pallege

'This big dog is mine.'

Cf. Lawu-yi pese lee ye pallege.

(b) yaramata kawee [we] Pm mommaye [we] sulu male
Cmp *good* Cmp *3* Nucl

==> yaramata kawee mommaye we sulu male
OP
or by adjectivisation

==> yaramata kawee mommaye we sulu male
OP

==> yaramata mommaye kawee we sulu male
OB

==> yaramata mommaye kawee sulu male
OP

'those three good people'

TR 42 Cmp lå *'that' deletion* (OP)

SD: X $\left\{ \begin{matrix} \text{Pm} & (\text{TA}) & \text{PP} & (\text{PrepP}) \\ \text{V} & \text{Os} \end{matrix} \right\}$ [lå S]$_{\text{NP}}$ Y

$\begin{bmatrix} +\text{Pro} \\ -\text{SP} \\ -\text{HR} \\ -\text{Ani} \\ +\text{SG} \end{bmatrix}$

1 2 3 4 5

where 4 does not involve any element having the identical reference that Pm or Os has and V does not dominate a formative with [+ NP$\frown$NP].

SC: 1, 2, 4, 5

See 4.9.6. (E 341) for the related discussion.

E 499 gaag Pm dipali Os yiiy lå gaag Pm be loxo Yulidiy

$\begin{bmatrix} +\text{SP} \\ +\text{SG} \end{bmatrix}$ ta *go*

==> Pm dipali Os lå Pm be loxo Yulidiy

==> Pm dipali Os Pm be loxo Yulidiy

'I want to go to Ulithi.'

Cf. Yi dipali-ya yi be loxo Yulidiy.

APPENDIX

SUMMARY OF RULES

1. *PHONOLOGICAL RULES*

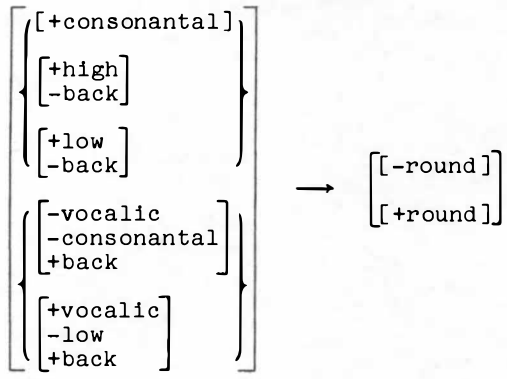
PR 1 [-consonantal] $\longrightarrow$ $\begin{bmatrix}\text{-coronal}\\ \text{-anterior}\end{bmatrix}$ (page 20)

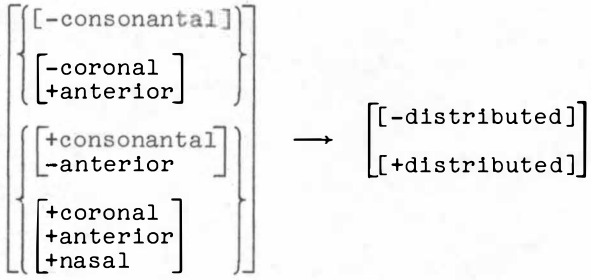
PR 2 $\left[\begin{bmatrix}\text{+coronal}\\ \text{+anterior}\end{bmatrix}\left\{\begin{bmatrix}\text{+consonantal}\\ \text{-anterior}\end{bmatrix}\\ \begin{bmatrix}\text{-vocalic}\\ \text{-consonantal}\end{bmatrix}\right\}\right]$ $\longrightarrow$ $\begin{bmatrix}\text{[-high]}\\ \text{[+high]}\end{bmatrix}$ (page 20)

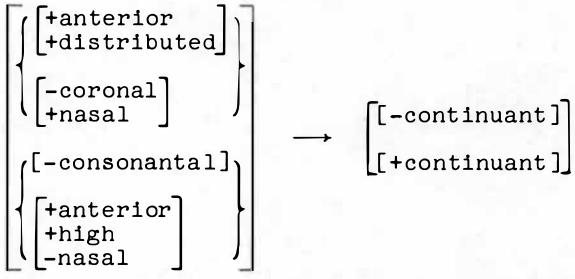
PR 3 $\left\{\begin{bmatrix}\text{-high}\end{bmatrix}\\ \begin{bmatrix}\text{+anterior}\\ \text{-high}\end{bmatrix}\right\}$ $\longrightarrow$ [-low] (page 20)

PR 4 $\left[\left\{\begin{bmatrix}\text{+consonantal}\\ \text{-high}\end{bmatrix}\\ \begin{bmatrix}\text{+coronal}\\ \text{-anterior}\end{bmatrix}\right\}\\ \begin{bmatrix}\text{+consonantal}\\ \text{-coronal}\\ \text{+high}\end{bmatrix}\right]$ $\longrightarrow$ $\begin{bmatrix}\text{[-back]}\\ \text{[+back]}\end{bmatrix}$ (page 20)

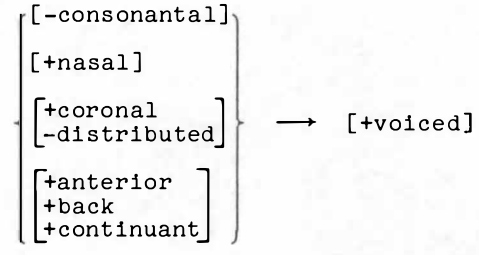
PR 5 $\left\{\begin{bmatrix}\text{+vocalic}\end{bmatrix}\\ \begin{bmatrix}\text{-vocalic}\\ \text{-consonantal}\end{bmatrix}\\ \begin{bmatrix}\text{+coronal}\\ \text{-anterior}\end{bmatrix}\right\}$ $\longrightarrow$ [-nasal] (page 20)

PR 6  (page 20)

PR 7  (page 21)

PR 8  (page 21)

PR 9  (page 21)

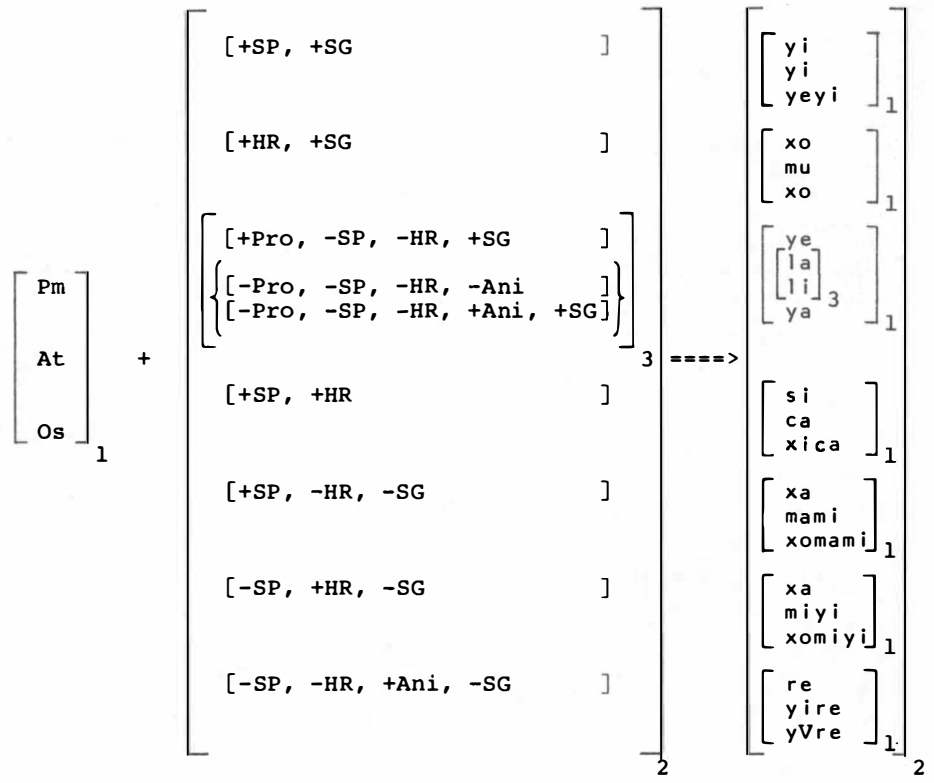
PR 10  (page 21)

PR 11 [+consonantal] ⟶ [+release] (page 21)

PR 12 [+consonantal] ⟶ [-aspirated] (page 22)

PR 13 [±vocalic] ⟶ [-tense] (page 22)

PR 14 (page 42)



PR 15 <+Prog> + $\begin{bmatrix} C_1(C_1)V_1(V_1)Z \\ C_1V_1C_2V_2 \end{bmatrix}$ ===> $\begin{bmatrix} C_1V_1C_1(C_1)V_1(V_1)Z \\ C_1V_1C_2C_1V_1C_2V_2 \end{bmatrix}$ (page 44)

/ # __ $\begin{Bmatrix} + \\ \# \end{Bmatrix}$

PR 16 C_1 ==> C_1C_1 /#C_1V_1__ V_1Z (page 45)

where C_1 = a nasal, k or x

PR 17 xVxx ==> kVkk (page 45)

PR 18 $\begin{bmatrix} sa \\ saab \end{bmatrix}$ ==> $\begin{bmatrix} ya \\ yaab \end{bmatrix}$ / $[si]_{Pm}$ #$[\_\_]_{TA}$ (page 46)

PR 19 (OP) $\begin{bmatrix} u \\ i \end{bmatrix}$ ==> $\begin{bmatrix} \dot{e} \\ e \end{bmatrix}$ / __ + $\begin{bmatrix} \sim yi \\ \sim yire \end{bmatrix}_{At}$ # (page 46)

PR 20 V_1 + ya ==> $\begin{Bmatrix} V_1V_1 \\ a^< a^< \end{Bmatrix}$ / $[\_\_]_{Os}$ + DIR (page 46)

PR 21 awu ==> òò / __ + $\begin{Bmatrix} \sim yi \\ \sim yire \end{Bmatrix}_{At}$ (page 47)

PR 22 (OB) (OP) 1(L)V ==> ø / #CV__ + $\begin{bmatrix} li \\ la \end{bmatrix}_{At}$ # (page 48)

PR 23 e ==> i / u # $[y\_\_xe]_{Num}$ (page 49)

PR 24 a ==> $\begin{bmatrix} \dot{e} \\ o \\ e \end{bmatrix}$ / u + $\begin{bmatrix} \{f\_\_se\} \\ \{m\_\_le\} \\ \{y\_\_le\} \\ \{y\_\_ye\} \\ y\_\_fe \end{bmatrix}_{Nucl}$ (page 49)

PR 25 a ==> e / $\begin{bmatrix} se \\ faay \\ wòle \end{bmatrix}_{Nus}$ + $[y\_\_le]_{Nucl}$ (page 50)

PR 26 + ==> ø / #Z__Z $\begin{Bmatrix} + \\ \# \end{Bmatrix}$ (page 50)

PR 27 $\begin{Bmatrix} e \\ \dot{e} \\ a \end{Bmatrix}$ ==> V_1 / __ (#) C V_1 Z# (page 51)
[+back][+back]

PR 28 a ===> $\begin{bmatrix} \dot{e} \\ \begin{bmatrix} o \\ \dot{e} \end{bmatrix}_2 \end{bmatrix}_1$ / $\begin{bmatrix} Vy \\ \tilde{a} \begin{bmatrix} P \\ \tilde{P} \end{bmatrix}_2 \end{bmatrix}_1$ __mu # (page 52)

where P = p, m, B (B = b, ṁ, w), single or double
and $\tilde{P}$ = any other C, single or double
and $\tilde{a}$ = any V other than a

PR 29 ayire == àáre /C__# (page 53)

PR 30 $V_1(V_1)$ $\begin{Bmatrix} yire \\ yVre \end{Bmatrix}$ ==> V_1V_1re /__# (page 53)

PR 31 a ===> $\begin{bmatrix} e \\ \\ \\ \dot{e} \end{bmatrix}$ / $\begin{bmatrix} \left\{ \begin{matrix} Vy \\ \left\{ \begin{matrix} i \\ e \end{matrix} \right\} \end{matrix} \right. & C \\ \left\{ \begin{matrix} \dot{e} \\ o \\ u \end{matrix} \right\} & C \end{bmatrix}$ ___ $\tilde{B}$ i (page 54)

where $\tilde{B}$ = any consonant other than b, ṁ, w
and C = any consonant other than y, single or double

PR 32 $\begin{bmatrix} a \\ aa \end{bmatrix}_1$ ===> $\begin{bmatrix} a \\ a^{\prec} a^{\prec} \end{bmatrix}_1$ / $\begin{bmatrix} \left\{ \begin{matrix} i \\ e \end{matrix} \right\} \\ \left\{ \begin{matrix} a \\ \dot{o} \\ \# \end{matrix} \right\} \end{bmatrix}_2$ $\tilde{B}$ __ C $\begin{bmatrix} \# \\ \left\{ \begin{matrix} i \\ e \\ \dot{e} \end{matrix} \right\} \end{bmatrix}_2$ (page 55)

where $\tilde{B}$ is any consonant (single or double) other
than b, ṁ, w
and C is any consonant, single or double

PR 33 aya ==> $a^{\prec} a^{\prec}$ / C __ $\left\{ \begin{matrix} \# \\ C \end{matrix} \right\}$ (page 56)

PR 34 $\begin{bmatrix} o \\ Vq \end{bmatrix}$ ===> $\begin{bmatrix} o^{\wedge} \\ Vq^{\wedge} \end{bmatrix}$ / __ C i (page 57)

where Vq = ee, ȧȧ, ȯȯ, oo

PR 35 $\begin{bmatrix} i \\ o \end{bmatrix}$ ==> u / $\begin{bmatrix} C & \_\_ & xo \\ ux & \_\_ & \end{bmatrix}$ (page 58)

PR 36 V_1 ==> $V_1{}^{\cdot}$ / __xo# (page 58)

where $V_1 \neq$ u, ė

PR 37 l ==> n / nV__ (page 59)

PR 38 $\begin{bmatrix} l \\ ll \end{bmatrix}$ ==> $\begin{bmatrix} l^{\prec} \\ l^{\prec} l^{\prec} \end{bmatrix}$ / $\begin{bmatrix} Vz \\ \left\{ \begin{matrix} a \\ o \\ \# \end{matrix} \right\} \end{bmatrix}$ ___ (C) $\begin{bmatrix} Z \\ Vz \end{bmatrix}$ (page 59)

where Vz = i, e, ȧ, u, ė ($\tilde{Vz}$ = o, ȯ, a)

and Z = any segment including zero.

PR 39 m ==> m / $\left\{\begin{matrix} \_\_u\# \\ Vj\_\_\{u, o, \dot{o}\} \\ \_\_V\ \dot{m} \end{matrix}\right\}$ (page 60)

where Vj = a, o, (ȯ), u, ė

PR 40 $\left[\begin{matrix} [Vq \\ \tilde{Vq}]_1 \\ V \end{matrix}\right]_2$ ===> $\left[\begin{matrix} [[-\text{voiced}] \\ \quad \emptyset \end{matrix}\right]_1 / \begin{matrix} Zx\ \_\_\ \# \\ Z\tilde{x}\ \_\_\ \# \end{matrix}\Bigg]_2$ (page 61)

where Vq = $\begin{bmatrix} +\text{vocalic} \\ +\text{back} \end{bmatrix}$, i.e. a, ȯ, o, u

and $\tilde{Vq}$ = any V other than Vq

and V = any vowel

and Zx and $Z\tilde{x}$ each contain at least a syllable

and $\tilde{x}$ = any V or C other than x

PR 41 CVC(v) ===> CVVC(v) / #[__]$_{Nm}$# (page 62)

where Nm is a syntactic category (a low level noun phrase)

and v = voiceless V

PR 42 C ==> ø /C__# (page 64)

PR 43 Cc ==> ø (page 64)

PR 44 # ===> $\left[\begin{matrix} \emptyset \quad / \quad \left\{\begin{matrix} \{Pm \\ TA\} \_\_ TA \\ N\_\_(Adj)\_\_Dm \\ \quad \_\_Num \end{matrix}\right\} \\ // \quad \text{elsewhere} \end{matrix}\right.$ (page 65)

PR 45 $\begin{bmatrix} w \\ \\ \\ \\ y \end{bmatrix}$ ===> Ø / $\begin{bmatrix} \left\{ \begin{matrix} u\_\_y \\ u\_\_C \\ (\_\_u) \end{matrix} \right\} \\ \left\{ \begin{pmatrix} (ZC) \_\_ (C) \\ V_1 \_\_ V_1 \\ V\ [\_\_]_{Os}\ // \\ Vh[\_\_]_{\sim At}\ // \\ -\left\{ \begin{matrix} i \\ e \end{matrix} \right\} \end{pmatrix} \right\} \end{bmatrix}$ (page 65)

where Z = zero, a C, or a V and ZC ≠ uw
and Vh = i, u, e, ė
and Os = object suffix; At = non-attributive suffix

PR 46 u ==> i / __C $\left\{ \begin{matrix} i \\ e \end{matrix} \right\}$ x (page 67)

PR 47 $\left\{ \begin{matrix} i \\ e \\ o \\ ė \end{matrix} \right\}$ ===> u / // B __ C $\left\{ \begin{matrix} i \\ u \end{matrix} \right\}$ ($\begin{bmatrix} +ant \\ +high \\ +back \end{bmatrix}$) ($\begin{bmatrix} +voc \\ +high \end{bmatrix}$) (page 67)

PR 48 V ==> $\begin{bmatrix} Ø \\ \\ \dot{ı} \end{bmatrix}_2$ / $\left[\begin{bmatrix} V & \left\{ \begin{matrix} N \\ L \end{matrix} \right\} \\ \\ V_1 & \left\{ \begin{matrix} \tilde{N} \\ \tilde{L} \end{matrix} \right\} \end{bmatrix}_1 \_\_ C \begin{bmatrix} V \\ \\ V_2 \end{bmatrix}_1 \right]_2$ (page 67)

where N = ṁ, n, m, g; L = l
ı̇ = high central unrounded glide
V ≠ $V_1 \left\{ \begin{matrix} \neq \\ = \end{matrix} \right\} V_2$

PR 49 mė ==> m / __ (if // ==> Ø) [i] (page 69)

PR 50 (V_1) l ==> T_1 / V_1 __ (if // ==> Ø) T_1 (page 69)

where T = [+coronal] = t, d, c, s, r, n

PR 51 u(u) ==> [-back] / $\left\{ \begin{matrix} d \\ s \\ l \\ m \end{matrix} \right\}$ __ $\tilde{B}$ (page 70)

PR 52 $\begin{Bmatrix} b \\ d \end{Bmatrix}$ ===> [-voiced] / __ $\begin{Bmatrix} // \\ [-voiced] \end{Bmatrix}$ (page 71)

$\left(\begin{bmatrix} -\text{vocalic} \\ +\text{anterior} \\ +\text{continuant} \end{bmatrix} \right)$

PR 53 $\begin{Bmatrix} f \\ x \end{Bmatrix}$ ===> [+voiced] / [+voiced] __ [+voiced] (page 71)

PR 54 $\begin{bmatrix} S_1 \\ \begin{Bmatrix} l \\ n \\ g \end{Bmatrix} \\ \begin{Bmatrix} m \\ \dot{m} \end{Bmatrix} \end{bmatrix}$ ===> [-release] / __ $\begin{bmatrix} S_1 \\ \\ \begin{Bmatrix} C \\ // \end{Bmatrix} \\ \\ \begin{Bmatrix} p, b, m, \dot{m} \\ (//) \end{Bmatrix} \end{bmatrix}$ (page 72)

where S = $\begin{bmatrix} -\text{nasal} \\ -\text{continuant} \end{bmatrix}$ = p, t, k, c, r

PR 55 $\begin{Bmatrix} p \\ t \\ c \\ k \end{Bmatrix}$ ==> slightly aspirated / __ // (page 73)

PR 56 $\begin{bmatrix} C_1 \\ V_1 \end{bmatrix}$ ==> [+tense] / (__) $\begin{bmatrix} C_1 \\ V_1 \end{bmatrix}$ (__) (page 73)

PR 57 x ===> $\begin{cases} \text{fronted} / \_\_ \begin{Bmatrix} C \\ // \\ i,\ e,\ \dot{a},\ \dot{e},\ u \end{Bmatrix} \\ \text{slightly voiced} / \ //\_\_\dot{e} \\ x^{\dot{+}} \quad / \_\_ i,\ e,\ \dot{a} \end{cases}$ (page 73)

PR 58 $\begin{bmatrix} \begin{Bmatrix} a y \dot{e} \\ a w u \end{Bmatrix} \\ \dot{a} w \\ \dot{a}(y)i \end{bmatrix}$ ===> $\begin{bmatrix} [\ddot{e}:] \\ [\ddot{e}] \\ \dot{a}\dot{a} \end{bmatrix}$ (page 74)

PR 59 $\begin{bmatrix} V_1 V_1 \\ V \end{bmatrix}$ ===> $\begin{bmatrix} \acute{V}_1 V_1 \\ \acute{V} \quad / \quad \_\_CCV \begin{Bmatrix} C \\ \# \end{Bmatrix} \end{bmatrix}$ (page 74)

2. *CONSTITUENT STRUCTURE RULES*

BR 1	S ⟶ S (con⌒S)	(page 89)
BR 2	S ⟶ (Modality) Proposition	(page 95)
BR 3	Modality ⟶ $\binom{Q}{Imp}$ (Emp)	(page 95)
BR 4	Proposition ⟶ (SA) $\left\{\begin{matrix}\text{Predication}\\ \text{Identification}\end{matrix}\right\}$ (PrepP)	(page 95)
BR 5	Predication ⟶ NP⌒Aux⌒PP	(page 101)
BR 6	Aux ⟶ Pm (TA)	(page 101)
BR 7	PP ⟶ (Mv) VP	(page 101)
BR 8	Identification ⟶ NP⌒NP	(page 132)
BR 9	VP ⟶ $\left\{\begin{matrix}\text{VB}\\ \text{NP}\end{matrix}\right\}$ (NP) (COM)	(page 143)
BR 10	VB ⟶ Vb (NP)	(page 143)
BR 11	Vb ⟶ Vp (DIR) (Int)	(page 143)
BR 12	DIR ⟶ (Dr) (Dad)	(page 143)
BR 13	PrepP ⟶ (Prp) $\left\{\begin{matrix}\text{NP}\\ \text{PrV}\end{matrix}\right\}$	(page 166)
BR 14	PrV ⟶ Vpr⌒NP	(page 166)
BR 15	NP ⟶ NP $\binom{con⌒NP}{COM}$	(page 199)
BR 16	NP ⟶ (Mn) NM	(page 199)
BR 17	NM ⟶ Nm (Dm) (Dr) (Int)	(page 199)
BR 18	Nm ⟶ $\left\{\begin{matrix}\text{N}\\ \text{NUC}\\ \text{S}\end{matrix}\right\}$ (ATT)	(page 199)
BR 19	ATT ⟶ At⌒NP	(page 200)

BR 20 NUC ⟶ (Rpt) {NuCm, Qnt} (page 200)

BR 21 NuCm ⟶ (Ord) Nus {Nucl, Num} (page 200)

BR 22 COM ⟶ Cmp S (page 271)

BR 23 [Vp, Vpr] ⟶ [V, Vprs] (Os) (page 316)

3. SYNTACTIC REDUNDANCY RULES

RR 1 V ⟶ <±Prog> (page 335)

RR 2 NP ⟶ <±Emp> (page 335)

RR 3 [+N, -Pro, -Dm] ⟶ <±SG> (page 336)

RR 4 {<+Cl>, <+Nucl>, <+Pro>, <+Dm>} ⟶ <+def> (page 337)

RR 5 {<+Cl>, <+Nucl>, <+Q>, <+Dm>} ⟶ [-__Dm] (page 337)

RR 6 {<+Pro>, <+Q>, <+Dm>} ⟶ [-__ATT] (page 337)

RR 7 [+__NP$_1$ NP$_2$] ⟶ [+__NP$_1$] (page 337)

RR 8 [-__Os, +__NP] ⟶ [-__Os] (page 337)

RR 9 [+__PrepP] ⟶ [+__] (page 337)

4. TRANSFORMATION RULES

TR 1 Pm *feature copying* (page 342)

SD: X NP_1 [xSF] [{mė, gė, xaree} con *] NP_2 [ySF] Pm Y

1 2 3 4 5

SC: 1, [2 3]$_{NP}$ [xSF U ySF] [xSF] [xSF] $_a$, 4 + [xSF U ySF] [ySF] [xSF] $_a$, 5

TR 2 At & Os feature copying (page 343)

SD: X {At, Os Y} NP [xSF] Z where Y ≠ NP

1 2 3 4 5

SC: 1, 2 + [xSF], 3, 4, 5

TR 3 reduction of coordinate sentences (OP) (page 345)

SD: $[X_1$ NP_1 $Y_1]_S$ ([xSF]) ([vSF]) [gė, xaree]$_a$ $[X_1$ NP_2 $Y_1]_S$ ([ySF]) ([wSF])

SC: X_1 ([xSF U ySF]) ([xSF]) $_a$ $[NP_1$ [mė, gė, xaree]$_a$ $NP_2]_{NP}$ Y_1 ([vSF U wSF]) ([wSF]) $_a$

condition: NP_1 and NP_2 are not pseudo-prepositionals.

TR 4 number shift (OP) (page 347)

SD: X [*, {At, Os}]$_a$ NP <-Pro> [Pm, *]$_a$ Y

<-SG> <-SG>

1 2 3 4 5

SC: 1, <-SG> ==> <+SG>, 3, <-SG> ==> <+SG>, 5

TR 5 Pm *feature shift* (OP) (page 349)

SD: X NP_1 $[xaree]_{con}$ NP_2 Pm Y

Pm: {<+SP>, <+HR>, <-SG>}

1 2 3 4 5 6

SC: 1, 2, 3, 4, $\begin{bmatrix}\text{<+SP>}\\\text{<+HR>}\\\text{<-SG>}\end{bmatrix}_a$ Pm ==> $\begin{bmatrix}\text{<-SP>}\\\text{<-HR>}\\\text{<+SG>}\end{bmatrix}_a$, 6

TR 6 reduction of sentences involving PrepPs, Mns, Mvs *and* Ints (OP) (page 349)

SD: X_1 $\begin{bmatrix}\text{PrepP}_1\\\text{Mn}_1\\\text{Mv}_1\\\text{Int}_1\end{bmatrix}_a$ Y_1 $[gė]_{con}$ X_1 $\begin{bmatrix}\text{PrepP}_2\\\text{Mn}_2\\\text{Mv}_2\\\text{Int}_2\end{bmatrix}_a$ Y_1

1 2 3 4 5 6 7

SC: 1, [2 6] $\begin{bmatrix}\text{PrepP}\\\text{Mn}\\\text{Mv}\\\text{Int}\end{bmatrix}_a$, 3

TR 7 TA *juxtaposition* (page 350)

SD: X_1 TA Y_1 $[gė]_{con}$ X_1 TA Y_1

TA: <-neg> / <+neg>

1 2 3 4 5 6 7

SC: 1, 2, 6, 3

conditions: 1. $[SD]_S \frown gė \frown S$ (S: <+subord>)

2. $NP \frown Cmp \frown [SD]_S$

TR 8 post-ye Predication deletion (page 351)

SD: X $Pred_1$ $[ye]_{con}$ $Pred_1$ PrepP Y

1 2 3 4 5 6

SC: 1, 2, 3, 5, 6

TR 9 yes-no question (page 352)

SD: X Q Y Proposition Z

1 2 3 4 5

where 4 does not contain a word having $\begin{bmatrix}+Q\\+Emp\end{bmatrix}$

SC: $\begin{cases}1, 3, 4\searrow, 5 \text{ if X ends in QY Proposition } \textit{xaree}\\ 1, 3, 4\nearrow, 5 \text{ elsewhere}\end{cases}$ *or*

TR 10 interrogative word (with <+Emp>) question (page 352)

SD: X Q Emp [Y $\begin{bmatrix}W\\+Q\\+Emp\end{bmatrix}$ Z]$_{\text{Proposition}}$ R

1 2 3 4 5 6 7

SC: 1,3,4,5,6,7$\searrow$

TR 11 focus (page 353)

SD: X Emp Y NP_1 Z NP_2 ... R NP_n W $\quad n \neq 0$

<+Emp> <+Emp> <+Emp>

1 2 3 4 5 6 n-1 n n+1

SC: 1, 4 2, 6 2, ... n 2, 3, 4, 5, 6, ... n-1, n, n+1

conditions: 1. Integers, except for 1, preceding 2s are freely permutable.

2. Y, Z, ... R, W should contain at least a Vb or an NP not dominated by PrepP.

TR 12 identical NP deletion (page 354)

SD: [X NP_1 Y]$_S$ $\begin{Bmatrix}At\\ATT\end{Bmatrix}$ NP_1 Z

1 2 3 4 5 6 7

SC: 1, 3, 4, 5, 6, 7

TR 13 pronominalisation (page 355)

SD: X NP_1 Y NP_1 Z

$\begin{Bmatrix}[xSF]\\xtime\end{Bmatrix}$ $\begin{Bmatrix}[xSF]\\xtime\end{Bmatrix}$

1 2 3 4 5

SC: 1, 2, 3, ANAPH, 5

$$\left\{\begin{array}{l}\text{[xSF]}\\ \text{<xtime>}\end{array}\right\}$$

where ANAPH = $\left\{\begin{array}{l}\text{[xSF]}\\ \text{<xtime>}\end{array}\right\}$ $\left\{\begin{array}{ll}\text{yiiyage} & / \quad [\left\{\begin{array}{l}\text{(Prp) (N At)}\\ \text{<+loc>}\\ \text{(Vpr)}\end{array}\right\}\_\_]_{\text{PrepP}}\\ \text{<xtime>} & \\ \text{<+Pro> U[xSF] otherwise} & \end{array}\right.$

TR 14 pronoun feature shift (OP) (page 356)

SD: X NP_1 mė NP_2 Y
<+Pro> [xSF]

1 2 3 4 5

SC: 1, 2 U [xSF], 3, 4, 5

TR 15 <Pro> *feature shift* (page 357)

SD: X At NP Y
<-Pro> <+Pro>

1 2 3 4

SC: 1, <-Pro> $\overset{\text{At}}{==>}$ <+Pro>, 3, 4

TR 16 PrV permutation (page 357)

SD: X NP [Vpr NP]$_{\text{PrV}}$ Y
<-Pro> <+Pro>

1 2 3 4 5

SC: 1, 3, 4, 2, 5

TR 17 subject NP postposition (page 358)

SD: X NP Aux Y Vb $\{{}^{\text{PrepP}}_{*}\}$ Z

1 2 3 4 5 6 7

SC: 1, 3, 4, 5, $\left\{\begin{array}{ll}2 & 6\\ 6 & 2\end{array}\right\}$, 7

TR 18 At *deletion* (page 358)

SD: X $\begin{Bmatrix} \text{NuCm} \\ \text{Qnt} \end{Bmatrix}$ At NP $\begin{bmatrix} \text{+def} \\ \text{-SG} \end{bmatrix}$ Y

1 2 3 4 5 where NuCm does not contain Ord

SC: 1, 2, 4, 5

TR 19 appositive nominalisation (page 359)

SD: X [$[\text{NP}_1$ $\text{NP}_2]_S]_{\text{NP}}$ Y

$\begin{bmatrix} \text{<+Pro>} \\ \text{<+Cl>} \\ \text{<+Nucl>} \end{bmatrix}_a$ $\begin{bmatrix} \text{<-Pro>} \\ \text{<-Cl>} \\ \text{<-Nucl>} \end{bmatrix}_a$

1 2 3 4 5 6

SC: 1, 2, 3, 5, 6

TR 20 pronoun preposition (page 359)

SD: X $[\text{NP}_1$ con $\text{NP}_2]_{\text{NP}}$ Y

$[\text{NP}_1$ * $\text{NP}_2]_{\text{Iden}}$

<-Pro> <+Pro>

1 2 3 4 5

SC: 1, 4, 3, 2, 5

TR 21 pronoun deletion (1) (page 360)

SD: X $\begin{bmatrix} \begin{Bmatrix} \text{At} \\ \text{Os} \end{Bmatrix} \text{R} \\ * \\ \text{Pm Y PP W} \end{bmatrix}_a$ N <+Pro> $\begin{bmatrix} \text{[xSF]} \\ \text{[ySF]} \end{bmatrix}_b$ $\begin{bmatrix} * \\ \text{Pm} \\ * \end{bmatrix}_a$ Z

[xSF] [xSF]

1 2 3 4 5

where xSF ≠ ySF

and W = Ø or PrepP

SC: 1, 2, $\begin{bmatrix} \text{Ø} \\ \text{(3)} \end{bmatrix}_b$, 4, 5

TR 22 pronoun deletion (2) (page 361)

SD: X NP Cmp [Y NP Z]$_S$ W
[xSF] [+Pro, xSF]
1 2 3 4 5 6 7

SC: 1, 2, 3, 4, 6, 7

TR 23 yiiyage deletion (page 361)

SD: X [* yiiyage <+time> Y
{ Vpr
{ bo } yiiyage
{ NP <+loc> }]$_a$
1 2 3 4

SC: 1, [(3), (3), 3]$_a$, 4

TR 24 imperative (Pm *deletion*) (OP) (page 363)

SD: Imp Pm X
[+HR, +SG]
1 2 3 4

SC: 3, 4

TR 25 imperative (Imp *deletion*) (page 363)

SD: Imp X Pm Y
<+HR>
1 2 3 4

SC: 2, 3, 4

TR 26 3rd person singular Pm *deletion (1)* (OP) (page 364)

SD: X [NP (Emp), *]$_a$ [+Pm, -SP, -HR, +SG] {TA, Mv} [* , W PP Y NP]$_a$ Z
1 2 3 4 5 6

SC:

SC: 1, 2, 4, 5, 6

TR 27 3rd person singular Pm *deletion (2)* (OP) (page 364)

SD: # $\begin{bmatrix}+\text{Pm}\\-\text{SP}\\-\text{HR}\\+\text{SG}\end{bmatrix}$ $\begin{bmatrix}+\text{N}\\+\text{Dm}\end{bmatrix}$ X gė Y

1 2 3 4 5 6

SC: 1, 3, 4, 5, 6

TR 28 gė *deletion (1)* (OP) (page 365)

SD: # $\begin{bmatrix}+\text{N}\\+\text{Dm}\end{bmatrix}$ X $[\text{gė}]_{\text{con}}$ S where X = Int or ø

1 2 3 4 5

SC: 1, 2, 3, 5

TR 29 gė *deletion (2)* (OP) (page 365)

SD: x Pm Y gė Pm Z where Y does not contain Pm
[xSF] [xSF]

1 2 3 4 5 6

SC: 1, 2, 3, 5, 6

TR 30 predication reduction (page 366)

SD: [X Pm Y_1 $\left\{\begin{matrix}Vb_1\\ \\ \text{la}\\ \text{buu doxo}\end{matrix}\right\}$ $Z_1]_S$ Pm Y_1 Vb_1 Z_1
[xSF] [xSF]

1 2 3 4 5 6 7 8 9

SC: 1, 2, 3, 4, 8, 5

TR 31 anaphoric Os *adjunction* (OP) (page 367)

SD: X V Os $\begin{bmatrix}\text{Dad}\\\text{Dr}\end{bmatrix}_{\text{a}}^{\text{DIR}}$ Y

1 2 3 4 5

SC: 1, 2, $\left[\begin{matrix}(3)\\ \emptyset\end{matrix}\right]_a$, 4, 3, 5

TR 32 *anaphoric* Dr *adjunction* (OP) (page 367)

SD: X Dr Os Y
1 2 3 4

SC: 1, 2, 3, 2, 4

TR 33 Dr-Int *preposition* (page 367)

SD: [X N At NP $\left\{\begin{matrix}\text{Dr}\\ \text{Int}\end{matrix}\right\}$ Y]$_{NP}$

1 2 3 4 5 6

SC: 1, 2, 3, 5, 4, 6

TR 34 *anaphoric* ma (hb) *adjunction* (OP) (page 368)

SD: X ma Mv Y
1 2 3 4

SC: 1, 2, 3, 2, 4

TR 35 Dr-Dad *permutation* (OP) (page 368)

SD: X Dr Dad Y
1 2 3 4

SC: 1, 3, 2, 4

TR 36 *attributive "head-S type" nominalisation* (page 368)

SD: X[Pm (te) V $\left[\begin{matrix}(\text{DIR})\\ *\end{matrix}\right]_a$ (Os) $\left[\begin{matrix}*\\ (\text{DIR})\end{matrix}\right]_a$ (Int)]$_S$ At Y
[xSF] $\left[\begin{matrix}-\text{Pro}\\ +\text{SG}\end{matrix}\right]$ [xSF]

1 2 3 4 5 6 7 8 9 10 11

SC: 1, 3, 4, 5, 6, 10, 7, 8, 11

TR 37 *"appositive-S type" nominalisation* (page 369)

SD: X [yaa- At Y]$_{NP}$ [[Pm Z]$_{S}$]$_{NP}$ W
[xSF] [xSF]

1 2 3 4 5 6 7 8

SC: 1, 2, 3, 4, 6, 8

TR 38 adjectivisation (OP *in* 1 *and* 2; OB *in* 3) (page 370)

SD: X $\begin{bmatrix} \text{Nm} \\ \text{Nm Dm} \end{bmatrix}_a$ NP $\begin{bmatrix} \text{lå} \\ \{\text{lå} \\ \text{we}\} \end{bmatrix}_a$Cmp $\begin{bmatrix} (1)\ * \ * \ \text{N} \\ \qquad\qquad\ \ \text{+Adj} \\ (2)\ \text{Pm}\ * \ \text{V} \\ \qquad\qquad\ \ \text{+Adj} \\ (3)\ \text{Pm}\ \Delta[(\text{mė})\ \text{NP}]_{\text{PrepP}} \\ \qquad\qquad\qquad\ \ \langle\text{+loc}\rangle \end{bmatrix}_S$ Y

1 2 3 4 5 6 7 8

SC: 1, [2 6]$_{NP}$, 8

TR 39 Dm *postposition* (page 371)

SD: X Nm Dm $\{\text{N} \atop \text{V}\}$ Y
<+Adj>

1 2 3 4 5

SC: 1, [2 4]$_{Nm}$, 3, 5

TR 40 Mv te *'very, extremely' permutation* (page 371)

SD: # $\left\{\text{X} \begin{bmatrix} \text{Nm} \\ \text{Nm Dm} \end{bmatrix}_a\right\}_{NP}$ $\begin{bmatrix} \text{lå} \\ \{\text{lå} \\ \text{we}\} \end{bmatrix}_a$ Pm te V Y
<+Adj>

1 2 3 4 5 6 7

SC: 1, 5, 6, 2, 7

TR 41 Cmp *deletion* (OP) (page 372)

SD: X Dm $\{\text{lå} \atop \text{we}\}_{Cmp}$ Y

1 2 3 4

SC: 1, 3, 4

TR 42 Cmp *lå 'that' deletion* (OP) (page 373)

SD: X $\left\{\begin{matrix} \text{Pm} \quad (\text{TA}) \quad \text{PP} \quad (\text{PrepP}) \\ \text{V} \quad \text{Os} \end{matrix}\right\}$ $\begin{bmatrix}+\text{Pro} \\ -\text{SP} \\ -\text{HR} \\ -\text{Ani} \\ +\text{SG}\end{bmatrix}$ [lå S]$_{\text{NP}}$ Y

1 2 3 4 5

where 4 does not involve any element having the identical reference that Pm or Os has and V does not dominate a formative with [+ NP^NP].

SC: 1, 2, 4, 5

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