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AN OUTLINE OF ULITHIAN GRAMMAR.**

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AN OUTLINE OF ULITHIAN GRAMMAR

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ABSTRACT

This dissertation presents an analysis of the phonology and syntax of Ulithian, one of the least investigated nuclear Micronesian languages. Based on a descriptive model provided primarily by transformational generative theory, the analysis has been undertaken with materials obtained in almost 600 hours of informant work conducted partly in Hawaii but mainly on Ulithi.

In the phonological description, a phoneme inventory comprising 17 consonants, 8 vowels, and 8 suprasegmental phonemes is established, with segmental phonemes arranged in terms of both articulatory and distinctive features. Phonemes are set up on the basis of contrasts in base forms which have been decided upon in the light of general phonological characteristics observable in various morphophonemic changes on the surface plus occasional bolstering from comparative evidence. Several advantages are shown for this type of phonemicization: many distributionally limited surface contrasts are ascribable to environmental conditioning; most of the irregular surface alternations of stem final vowels turn out to be regular; a greater symmetry is attained in

the canonical structure of various minor morphemes; and a maximum uniformity in base forms is maintained with least syntactic irrelevance. Base (phonemic) forms are realized as surface (phonetic) forms by means of a series of phonetic rules. No intermediate "taxonomic" level is admitted, since such a level would introduce a number of additional phonemes which would be distributionally unique. The chapter on phonology contains 59 phonological rules covering assignments of redundant and nondistinctive inherent features, realization of certain feature compositions into base forms, and morphophonemic processes, and approximately 100 sets of supporting examples are given.

The syntactic description is made in two chapters, one dealing with the base and the other with the transformational subcomponent. In the former, an extensive discussion ranges over most of the important grammatical categories that have been found. The generalizations obtained are formalized in 23 constituent structure rules and 9 redundancy rules supported by about 450 sets of examples and a lexicon. The chapter on the transformational subcomponent consists of 42 rules together with 45 sets of examples and accompanying discussions. A number of decisions and proposals are made in the course of the formulation of base and transformational rules. Especially noteworthy are the following: inclusion of sentence compounding in the base and wide application of conjunction reduction transformation to deal with sequences of prepositional phrases, manner particles, noun phrases, etc., treatment of predication markers, attributive markers, and object suffixes within a single frame in terms of feature copying and base form realization; simple formalization of attributive constructions;

obligatory NP postulation in the base in spite of its optionality on the surface; appositive treatment of classifier-classified and pronoun-noun sequences; hierarchical ordering of an indirect and a direct object; "hyperclass" treatment of prepositional phrases; reduction of different types of focus constructions to a single frame (focus transformation); and formalization of anaphoric elements.

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ABBREVIATIONS

I. Abbreviations

Adj	adjective
Ani	animate
At, <u>at</u>	attributive marker
ATT	attributive phrase
Aux	auxiliary
BR	base rule
C	consonant
Cl	possessive classifier
Cmp	complementizer
COM	complement
con	connector
Cs	construct suffix
Dad	directional adverbial
DIR	directional
Dm, <u>dm</u>	demonstrative enclitic
Dr, <u>dr</u>	directional particle
E	example in syntax
(E)	example in phonology
Emp	emphasis
excl	exclusive
F	feature
<u>fm</u>	focus marker
<u>hb</u>	habituaive <u>ma</u>
HR	hearer

Iden	Identification
Imp	imperative
incl	inclusive
Int	intensifier
Mn	nominal manner particle
Mv	verbal manner particle
N	noun
<u>ng</u>	negative TA particle
Nm	noun phrase (low level)
NM	noun phrase (mid level)
NP	noun phrase (high level)
NUC	numerative construction
NuCm	numerative compound
Num	numerative multiple
Nus	numerative stem
OB	obligatory
OP	optional
Ord	ordinalizer
Os	object suffix
Pm, <u>pm</u>	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, <u>ta</u>	tense-aspect particle
TG	transformational grammar
tr	causative transitivizer
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
∅	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
(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, p̃	if not p
[F]	phonological feature
<F>	inherent or structural feature (< > will be omitted if the feature appears in Lexicon.)
[X__Y]	contextual feature
[xF yF ..]	feature matrix in phonology & syntax
Z	unless otherwise indicated, any sound, sound sequence, or zero
<	fronting

>	retracting
^	raising
v	lowering
x	voiced <u>x</u>
d	devoiced <u>d</u>
p	tensed <u>p</u>
p'	aspirated <u>P</u>

III. Conventions

1. When all the constituents appearing on the left of a BR are optional, at least one of the constituents must be chosen in each derivation.
2. Base forms are written in orthographic symbols with underlines in discussing phonology (Chapter IV) but without underlines in discussing syntax (Chapters IV and V). Phonological rules are developed in principle on the basis of orthographic 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 $\emptyset \Rightarrow V_1 / V_1C_ \#$ (e.g. Ben \Rightarrow 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 BR's 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 BR's.
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 the left side 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 (< ^). For example, a in a rule like $a \Rightarrow X$ includes both a [a] and a [a] (but not a [æ] which is a separate phoneme). Note that such diacritics as < and ^ indicate non-distinctive and non-binary phonetic degrees in the framework of this study (Cf. Halle 1964:333).

8. Unexplained symbols have traditional meaning.

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 neighboring 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 Grade n.d.:11) Austronesian languages, Dyen (1965) did not include any list from Ulithi, though he included those from neighboring Woleai, Satawal, and Puluwat. The latter three he regarded as dialects of the Wolean language by virtue of Puluwat-Satawal 83.3% and Satawal-Woleai 79.7% (35). In view of a high degree of mutual intelligibility

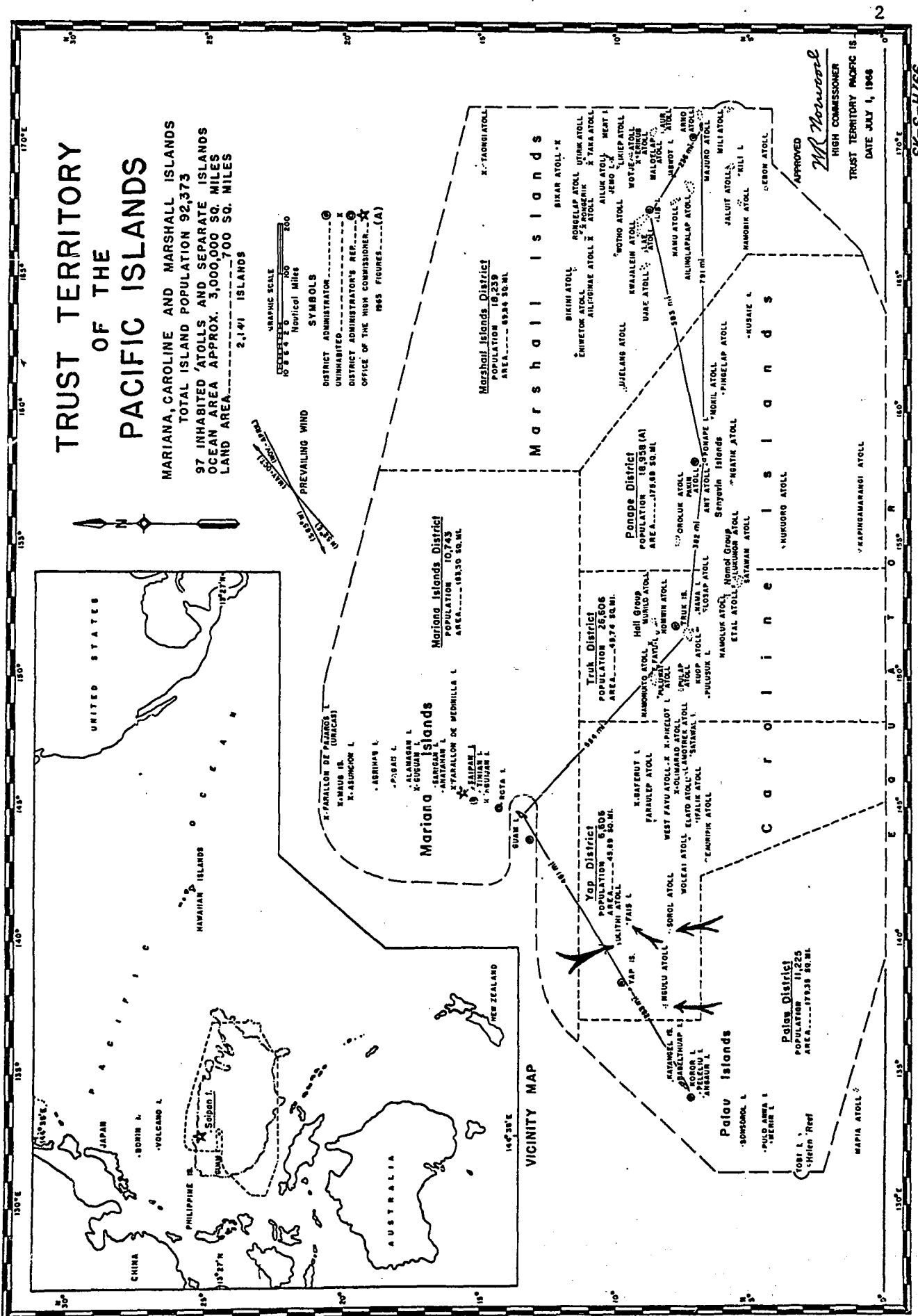


FIGURE 1

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).

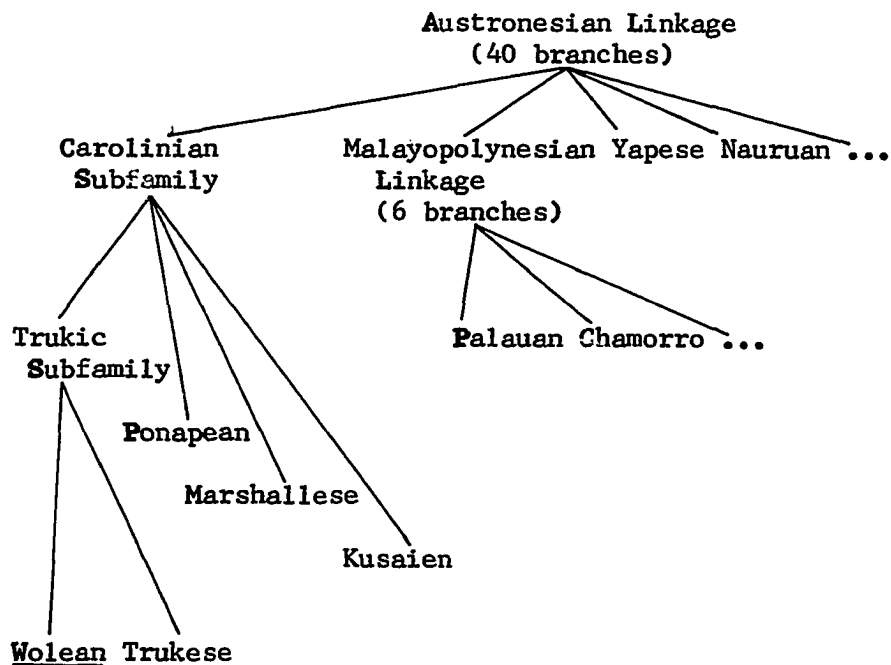


FIGURE 3

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 recognized.

- (1) Falalop & Asor
- (2) Fais
- (3) Mogmog, Fassarai, & Lodow

No simple generalization 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):

<u>Falalop dialect</u>	<u>Fais dialect</u>	<u>Mogmog dialect</u>	
[riyep]	[reyep]	[reyap]	"Yapese"
[tagiyet]	[tagiyat]	[tagiyat]	"high"
[firigil]	[firigil]	[feregel]	"braiding of"
[lepæcel]	[lepæcel]	[lapæcel]	"beside"

<u>Falalop dialect</u>	<u>Fais dialect</u>	<u>Mogmog dialect</u>	
[yigil]	[yagil]	[yagel]	"for"
[xum ^w uc]	[xum ^w oc]	[xum ^w oc]	"hand"
[m ^w om ^w :ut]	[m ^w om ^w :ut]	[m ^w om ^w :ot]	"to vomit"
[k:iil]	[k:iil]	[k:el]	"to dig"
[tef:oy]	[tef:oy]	[taf:oy]	"new"
[litə:vic]	[litɔ:vic]	[litɔ:vic]	"pocket knife"
[b ^w ugb ^w ux]	[b ^w ugb ^w ux]	[b ^w ogb ^w ox]	"knotty"
[yewu]	[yɔ:w]	[yɔwu]	"dirt"
[lab ^w uθ]	[lab ^w uθ]	[lab ^w oθ]	"moray eel"

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

<u>Falalop</u>	<u>Fais</u>	<u>Mogmog</u>	<u>examples</u>
y	y	y	[yu:l] [yu:l] [yu:l] "body hair"
w	w	w	[wu:p] [wu:p] [wu:p] "ridgepole"
y	w	y	[yuru:r] [wuru:r] [yuru:r] "to pull"
w	w	y	[eu: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 & 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 \emptyset , and final /x/ to \emptyset . 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

My 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 me 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, I left Honolulu.

After a stay of one week on Yap, I proceeded to Ulithi on May 16 by ship. On arriving at Falalop, Ulithi, where I was to spend most of the next five months, I chose a man named Roberto Dargos (age:52) as my principal informant. His untiring and enthusiastic assistance included the provision of not only language information but also coconuts, breadfruit, and fish. He 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 we had excellent communication by means of Japanese. Women and children, who were mostly monolingual, were good helpers in my practicing of Ulithian. In general, younger informants had less conviction about their language, thus vacillated 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 my informants were the bases for my analysis.

On the 8th of October, I 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 summarized as follows:

TABLE I
SUMMARY OF INFORMANT WORK

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

1.4. Scope of Study

This dissertation analyzes 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 summarized 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 Acknowledgments

First of all, I am grateful to the East-West Center for the generous 48-month grant without which I would have been unable to study in the United States. I am especially indebted to Mrs. Helen J. Choy, my program coordinator of the Center, who has constantly provided me with her wholehearted encouragement and assistance.

Particular thanks are extended to my informants for their excellent assistance and cooperation. Above all, Roberto Dargos's painstaking and willing help prompted the attainment of the desired goals of my field work within such a limited time. The kindness he and Mrs. Dargos provided and the friendship we maintained made my stay on Ulithi such a pleasant experience in spite of the natural adversity I underwent such as change of diet, climate, isolation, and sickness.

I am greatly indebted to Mr. Gregory Trifonovich of the East-West Center who very generously helped me make arrangements for my trip to Ulithi. I offer my thanks to Mr. and Mrs. Tom Burbach, Mr. and Mrs. W. Richard, Mr. and Mrs. K. Groves, Mrs. Stahl, Mrs. Hoover, Chief Hathey, and Captain W. Potznansky for the kind and generous cooperation and the friendship they extended to me during my travel to and stay on Ulithi.

NOTES TO CHAPTER I

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).
3. Throughout my informant work, Dyen 1965 and Elbert 1968 have been of great use for elicitation and comparison.

CHAPTER II

METHODOLOGY

2.1. General

This phonological and syntactic description of Ulithian is based on the descriptive model provided by the recent developments 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. Phonemicization 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 phonemicization has been influenced by Bender's systematic phonemicization 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 phonemicization. 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 phonemicization 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 phonemicization 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 (PR's) 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 realization rules, and (2) phonetic rules. Morpheme structure rules are not developed.

Feature realization rules give the phonological shapes 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 realized 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 characterizes 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 subcategorization 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 subcategorization 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 subcategorization rules will simply be regarded as syntactic redundancy rules as in Chomsky's alternative. An 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, & 4.12). Thus the lexicon must be considered only as illustrative insofar as contextual features are concerned.

The redundancy rules deal with various syntactically 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 conventionalized 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 singular 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 generalization 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 generalization 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 "generalized P-marker" (1965:134). This proposal allows ## (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 singular transformations apply to generalized 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 generalized 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 generalized 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 & TR's 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 & TR's 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 NP's 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 nominalization 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 BR's 1, 9, 15, 18, and 19).

(10) Various types of emphasis constructions are systematized under the focus transformation (see 4.11.3 & TR 11).

(11) Different kinds of adjectival constructions are treated in a single framework, i.e. by means of adjectivization. This contributes to a great simplification of the base (see 4.10 & TR's 38-40).

(12) Deletion of a noun or noun phrase is effected not directly but by way of pronominalization, i.e. first it is replaced by anaphoric yiyage (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 & TR's 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 subcategorization 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 BR's 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 [$+_NP^{\sim}NP$] 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

	<u>bilab</u> <u>pln vel</u>	<u>lab-</u> <u>dent</u>	<u>int-</u> <u>dent</u>	<u>alveolar</u> <u>apic lam</u>	<u>alveo-</u> <u>palat</u>	<u>velar</u>	<u>back</u> <u>velar</u>
stop :	p			t	c	k	
fric :		b ^w	f	d	s		x
nasal:	m	m ^w		n		ŋ	
lat :				l			
trill:				r			
glides:		w			y		

vowels

	<u>front</u>		<u>back</u>	
	<u>unrounded</u>	<u>rounded</u>	<u>unrounded</u>	<u>rounded</u>
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

<u>symbols*</u>	<u>phonemes</u>	<u>symbols</u>	<u>phonemes</u>
p	p	i	i
t	t	e	e
c	c	ə	ə
k	k	a	a
b	b ^w	ɔ	ɔ
f	f	o	o
d	d	u	u
s	s	ə	ə
x	x		
m	m	(space)	+
h	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 capitalized.

**Comma may occasionally be dropped.

3.3 Distinctive Feature Composition

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

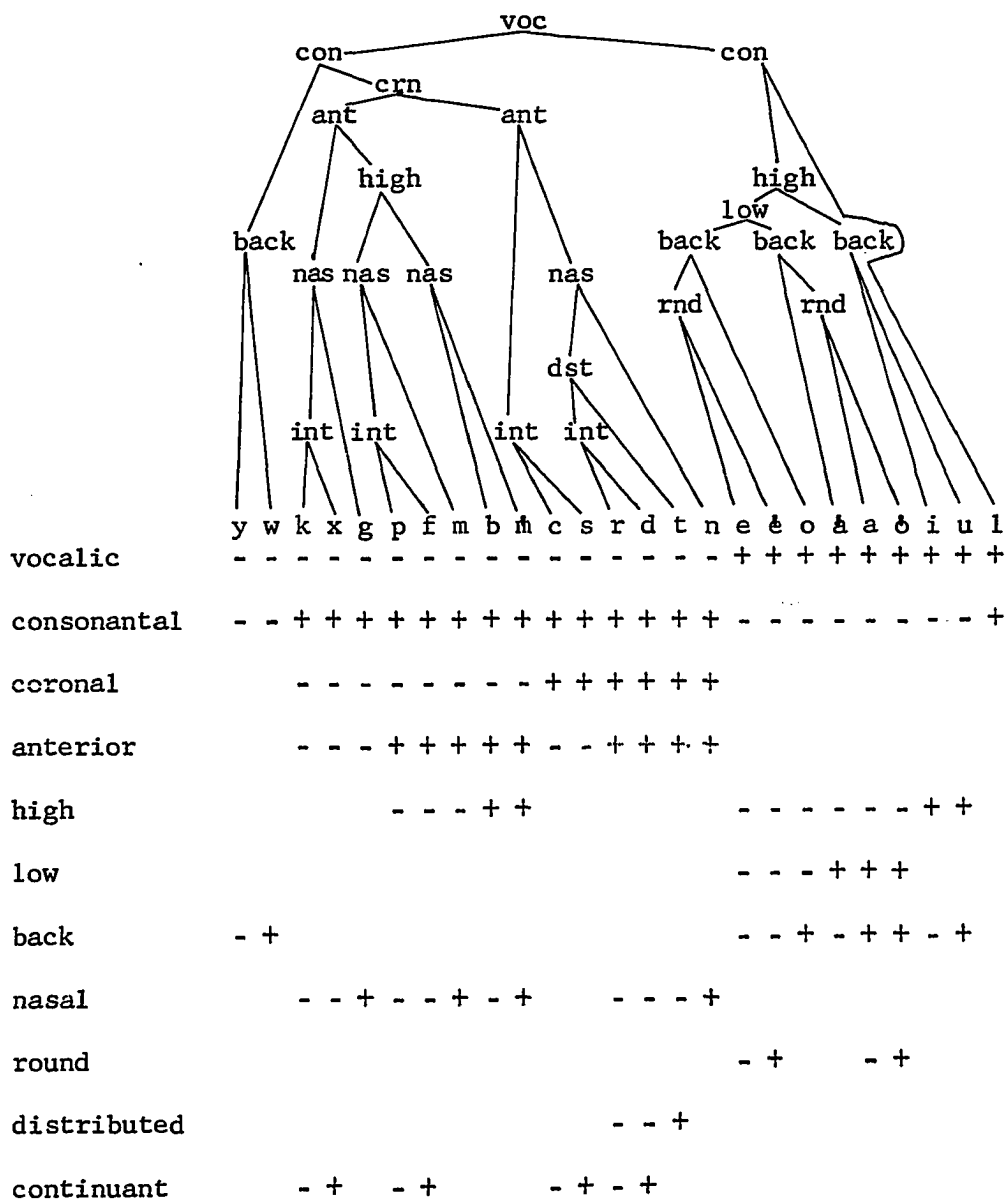


FIGURE 4

DISTINCTIVE FEATURE COMPOSITION OF SEGMENTS

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

$$\text{PR 1 } [-\text{consonantal}] \longrightarrow \begin{bmatrix} -\text{coronal} \\ -\text{anterior} \end{bmatrix}$$

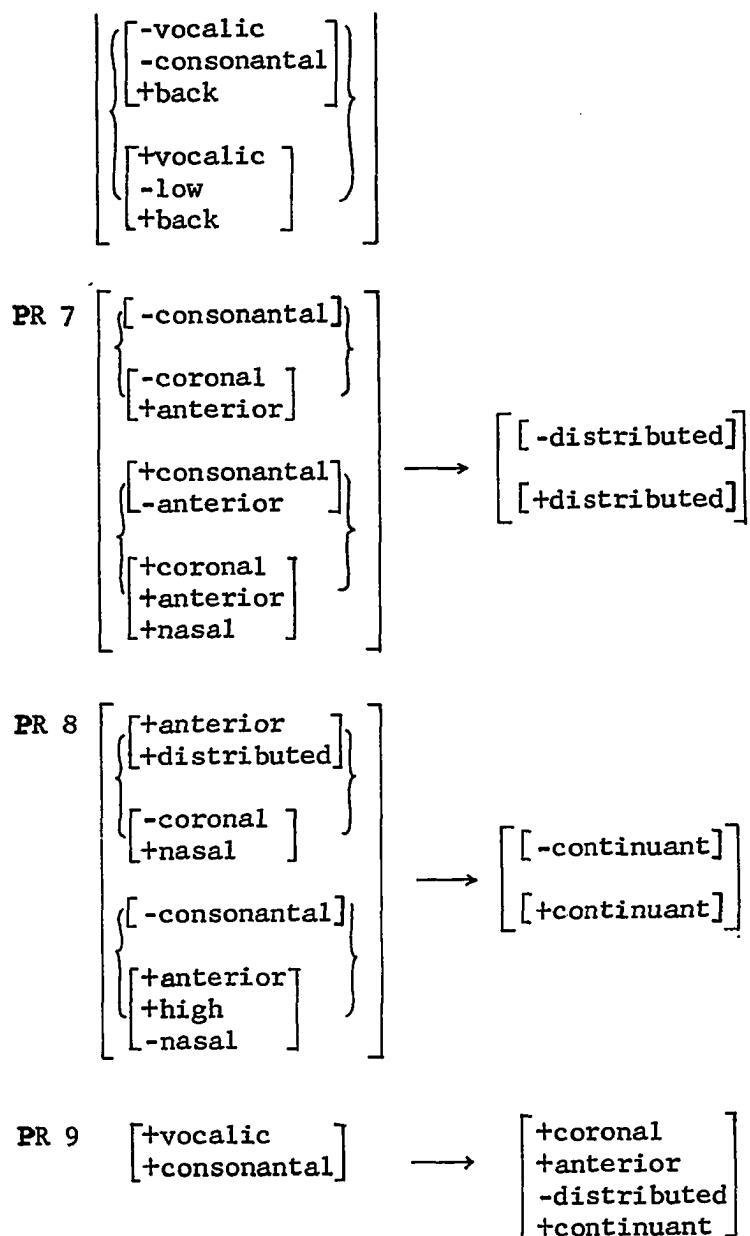
$$\text{PR 2 } \left\{ \begin{array}{l} \begin{bmatrix} +\text{coronal} \\ +\text{anterior} \end{bmatrix} \\ \begin{bmatrix} +\text{consonantal} \\ -\text{anterior} \end{bmatrix} \\ \begin{bmatrix} -\text{vocalic} \\ -\text{consonantal} \end{bmatrix} \end{array} \right\} \longrightarrow \begin{bmatrix} [-\text{high}] \\ [+high] \end{bmatrix}$$

$$\text{PR 3 } \left\{ \begin{array}{l} [-\text{high}] \\ [+anterior] \\ [-high] \end{array} \right\} \longrightarrow [-\text{low}]$$

$$\text{PR 4 } \left\{ \begin{array}{l} \begin{bmatrix} +\text{consonantal} \\ -\text{high} \end{bmatrix} \\ \begin{bmatrix} +\text{coronal} \\ -\text{anterior} \end{bmatrix} \\ \begin{bmatrix} +\text{consonantal} \\ -\text{coronal} \\ +\text{high} \end{bmatrix} \end{array} \right\} \longrightarrow \begin{bmatrix} [-\text{back}] \\ [+back] \end{bmatrix}$$

$$\text{PR 5 } \left\{ \begin{array}{l} [+vocalic] \\ \begin{bmatrix} -\text{vocalic} \\ -\text{consonantal} \end{bmatrix} \\ \begin{bmatrix} +\text{coronal} \\ -\text{anterior} \end{bmatrix} \end{array} \right\} \longrightarrow [-\text{nasal}]$$

$$\text{PR 6 } \left\{ \begin{array}{l} [+consonantal] \\ \begin{bmatrix} +\text{high} \\ -\text{back} \end{bmatrix} \\ \begin{bmatrix} +\text{low} \\ -\text{back} \end{bmatrix} \end{array} \right\} \longrightarrow \begin{bmatrix} [-\text{round}] \\ [+round] \end{bmatrix}$$



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:

$$\text{PR10 } \left\{ \begin{array}{l} [-\text{consonantal}] \\ [+nasal] \\ [+coronal] \\ [-distributed] \\ [+anterior] \\ [+back] \\ [+continuant] \end{array} \right\} \longrightarrow [+voiced]$$

(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.

$$\text{PR11 } [+consonantal] \longrightarrow [+release]$$

(3) aspiration

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

$$\text{PR12 } [+consonantal] \longrightarrow [-aspirated]$$

(4) tenseness

Since long vowels and consonants are viewed as geminate, tenseness does not play a differentiating role. PR13 states that all phonemes are inherently not tensed. A later phonetic rule (PR 56) will show that segments become tensed when they are doubled.

$$\text{PR13 } [+vocalic] \longrightarrow [-tense]$$

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 velarized bilabial stop (i.e. m̠) 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. [la:¹m̠] "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 velarization 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 [a:] or [a] lead to the interpretation that the contrast is between the two final nasals and [a:] in (E 1a) is caused by the [+back] feature of the final nasal.

(2) Two [ɪ]'s of different quality contrast in certain limited environments. In the first place, the so-called "construct suffix" morpheme [ɪ] "of" (referred to as Cs-ɪ) and the third person singular possessive suffix morpheme [ɪ] "his" (3s-ɪ) contrast in many instances. In such contrasts, Cs-ɪ is light and relatively fronted, while 3s-ɪ is dark and retracted. The different qualities of the two [ɪ]'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) [wub^we^ll<] "chest of" : [wub^wa^ll>] "his chest"
 [tapal<] "cheek of" : [tapal>] "his cheek"
 [sogo[^]l<] "stick of" : [sogo^vl>] "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) [pi:l<] "teeth of" : [pi:l<] "his teeth"
 [raxel<] "age of" : [raxel<] "his age"
 [lurul<] "shade of" : [lurul<] "his shade"
 [b^wɔ:ðəl<] "nose of" : [b^wɔ:ðəl<] "his nose"
 [pece:[^]l<] "foot of" : [pece:^vl>] "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 a, e[^] in contrast with e^v, etc. Besides, no regularity could be found in the alternation between the two series of stem vowels.

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

As an alternative to this treatment that would set up many more vowel phonemes of limited distribution, two distinct ɪ phonemes might be postulated, with the above vowel contrasts considered as allophonic variants conditioned by the ɪ's. But the two ɪ's 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 neighboring vowels. One could bring this limitation out in a transcription by using an ɪ archiphoneme in the noncontrastive positions--using for example ɪ's with fronting and backing diacritics for the fully specified ɪ's, and an ɪ without diacritic for the archiphoneme.

(E 5) /wub^Wɪɛl/ "chest of" : /wub^Wɪɛl^ʔ/ "his chest"
 /tapal^ʔ/ "cheek of" : /tapal^ʔ/ "his cheek"
 /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 noncontrastive positions in a transcription, but this would introduce a great deal of unnecessary redundancy and tend to obscure the severe distributional limitation of the ɪ-contrast. None of the possible solutions discussed thus far would provide a basis for any simple generalization concerning the vowel alternations before the two suffixes in certain forms but not in others.

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

(E 6)	[xədəl<//b ^w o]	"to walk in line because..."
	[xədəl ^ʔ b ^w o]	"supposedly"
	[xab ^w l<e]	"we (excl) will..."
	[xab ^w l ^ʔ e]	"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 l's.

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

(E 7)	[b ^w ura ^o xO]	"smoke"	;	[maleka:xO]	"travel"
	[xa:xO]	"helm"	;	[do ^o xO]	"to get"
	[kəl ^o xO]	"hungry"	;	[b ^w arəxO]	"dance"
	[b ^w ulaxA]	"taro"	;	[fasamaxA]	"pebble"
	[mapa:xU]	"clothes"	;	[b ^w uxU]	"knot"
	[tet:erax]	"sailing"	;	[b ^w :arex]	"pain"
	[ləb ^w a:x]	"to hide"	;	[tɔgɔx]	"coconut shell"
	[kago]	"box"	;	[tamago]	"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) [pa:luxU] "to lead you"
 Cf. [pa:liyey] "to lead me"
 [tava*x0] "to cut you"
 Cf. [tavayey] "to cut me"
 [dab^wo*x0] "to follow you"
 Cf. [dab^weyey] "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. [xal] "arrow" and [ka:l] "to look at"), medial (e.g. [magal] "separated" and [mak:al] "comb" or [maka: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:alfəp] "coolness" which has a strong initial [x] compared to such words as [xal] "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 [kək] " " : [kək:ak] " "

Mogmog [makel] "sugar cane" : [mak:al] "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 [a]. They contrast not only before the two morphemic [l]'s (Cs and 3s) as in (E 11) but also in many independent forms as in (E 12).

(E 11) short [wagal] "vein of" : [wagal] "his vein"

[tal] "rope of" : [tal] "its rope"

[tapal] "cheek of" : [tapal] "his cheek"

long [wa:l] "canoe of" : [wa:l] "his canoe"

[yifa:l] "underside of" : [yifa:l] "its underside"

(E 12)	<u>short</u>	[maθ]	"sated"	:	[maθ]	"cooked"
		[b ^w aɪ]	"to inspect"	:	[b ^w aɪ]	"stuck"
	<u>long</u>	[ya:f]	"fire"	:	[ya:f]	"swimming"
		[ta:l]	"rope"	:	[ta:l]	"well versed"
		[fa:s]	"stone"	:	[fa:a]	"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"	[li]	"to kill"	[b ^w i]	"sides of vagina"
	[re]	"they"	[le]	"this"	[b ^w e]	"fortune-telling"
	[rɛ]	"side"	[lɛ]	"as"	[b ^w ɛ]	"to find out"
	[ra]	"branch"	[la]	"that"	[b ^w a]	"rotten"
	*[ra]		*[la]		*[b ^w a]	

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

(E 14)	[ra]	"branch"	<	[ra:l]	"branch of"
				[ra:l]	"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, ɛ, ə]) and retracted elsewhere.

- (E 15) [maɛp] "a part"
 [maɛar] "to disperse"
 [maɛɛl] "being sated of"
 [maɛaɪ] "its being cooked"

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

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

- (E 16) [tə̃:s] "truth" : [tɛ̃:s] "porcupine fish"
 [də̃:r] "lavalava" : [dɛ̃:r] "indebtedness"
 [pə̃:l] "emptiness of" : [pɛ̃:l] "arm of"

The vowel in the first column is very common and the representative phone of the phoneme ə̃ 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) [yɛ̃:r] "accustomed, name of an island"
 [mɛ̃:l] "name of a star"
 [mɛ̃:r] "fresh (tree, fish, vegetables)"
 [cɛ̃:l] "leaf of"

Sound spectrographs show that the two contrasting vowels are monothongal, and that F1 of the vowel in [tə̃:s] = 450; F2 of the same = 1600; F1 of the vowel in [tɛ̃:s] = 550; F2 of the same = 1400. The above formants indicate that the two sounds [ə̃] and [ɛ̃] are very close to French vowels *ø* and *œ* respectively (Delattre et al.

1952:198). [ə] seems to have more lip rounding than [ɐ].

Several problems are involved in the phonemic interpretation of the two sounds. First of all, the number of forms involving [ɐ] is very small. The above examples are the only ones in my collection of 2,500 lexical items. Secondly, the contrast between the two is limited to long segments. Thirdly, [ɛ:] in C__C is not shortened before a suffix, while [ə:] may be:

- (E 18) [dɛ:r] "lavalava" : [dərəl] "lavalava of"
 [dɛ:r] "indebtedness" : [dɛ:rəl] "indebtedness of"
 [tə:s] "truth" : [tə:səl] "truth of"
 [tɛ:s] "porcupine fish" : [tɛ: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 regularizing 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 [m^w]) 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. [lam^wol] "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 m̄ in their non-contrastive position (e.g. lao) is that base forms should be free from maximum redundancy even in feature terms. That is, m̄ 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 Prague 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 l's thus effected are unable to affect the basic stem vowels, if the stem vowels are i, u, e, 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 & Quackenbush 1968).

(E 20)	<u>Ulithian base forms</u>	<u>Sonsorol ind. forms*</u>	
	<u>tagi</u>	taagI	"to cry"
	Cf. [ta:p] (ind. fm)		
	[tagil] (+ Cs)		
	<u>lutu</u>	rutU	"to jump"
	Cf. [lut] (ind. fm)		
	[lutul] (+ Cs)		
	<u>mawulu</u>	mawurU	"war"
	Cf. [mawul] (ind. fm)		
	[mawulul] (+ Cs)		
	<u>yade</u>	yaatI	"gall bladder"
	Cf. [ya:θ] (ind. fm)		
	[yadel] (+ Cs)		

<u>Ulithian base forms</u>	<u>Sonsorol ind. forms*</u>	
<u>taxuni</u>	talixI**	"back"
Cf. [tagur] (ind. fm)		
[tagurəl] (+ Cs)		
<u>fadè</u>	faatI	"eyebrow"
Cf. [fa:θ] (ind. fm)		
[fadəl] (+ Cs)		

*Symbols are adapted for ease of comparison.

**I 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 l's 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)

<u>a</u>	<	[e] : [a]
		[a] : [a]
<u>e</u>		[e] : [e]

The difference in alternation between [e] : [a] and [a] : [a] is due

to the conditioning of the vowel in the preceding syllable, e.g. [a] : [a] when the preceding vowel is a or o (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)	<u>wuba-li</u>	"chest of"	:	<u>wuba-la</u>	"his chest"
	<u>tapa-li</u>	"cheek of"	:	<u>tapa-la</u>	"his cheek"
	<u>soxo-li</u>	"stick of"	:	<u>soxo-la</u>	"his stick"
	<u>gii-li</u>	"teeth of"	:	<u>gii-la</u>	"his teeth"
	<u>raxe-li</u>	"age of"	:	<u>raxe-la</u>	"his age"
	<u>luru-li</u>	"shade of"	:	<u>luru-la</u>	"his shade"
	<u>bòòdi-li</u>	"nose of"	:	<u>bòòdi-la</u>	"his nose"
	<u>pecee-li</u>	"foot of"	:	<u>pecee-la</u>	"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)	<u>base form</u>	<u>ind. form</u>	<u>+Cs</u>	<u>+3s</u>
U.	<u>yafara</u>	[yafar]	[yafaral ⁴]	[yafaral ⁷]
S.	-	yafala	yafalari	?
	"shoulder"			

	<u>base form</u>	<u>ind. form</u>	<u>+Cs</u>	<u>+3S</u>
U.	<u>yina</u>	[i: ^h m]	[im ^w e1<]	[im ^w a1>]
S.	-	yi:m ^w A	yim ^w eri	?

"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)	<u>base</u>	<u>surface</u>
	<u>xadale#bo</u> ⇒ PR32 PR38	xada<l' e#bo ⇒ xada<l' #bo ⇒ xada<l'//bo PR40 PR44 [xada1//b ^w o]
	<u>xadalboo</u> ⇒ PR40	xadalbo [xada1>b ^w o]
	<u>xa#be#le</u> ⇒ xa#be#l'e ⇒ xabel'e ⇒ PR38 PR44 PR48	xabl'e [xab ^w l'e]
	<u>xabole +ya</u> ⇒ xaboley ⇒ xabole ⇒ PR26 PR45 PR48 PR40	xable [xab ^w l'>c]

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 & 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 \emptyset 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 \emptyset vowels are realized as single voiced vowels, while voiced vowels are realized 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 phonemicized in the following base forms. The corresponding phonetic forms followed by Cs-l are also given for reference.

<u>buraxo</u>	"smoke"	[b ^w uragol]
<u>malekaaxo</u>	"travel"	[maleka:gol]
<u>xaaxo</u>	"helm"	[xa:gol]
<u>doxo</u>	"to get"	[dogol]
<u>kéloxo</u>	"hungry"	[kəlxgol]
<u>baréxo</u>	"dance"	[b ^w arəgol]
<u>bulaxa</u>	"taro"	[b ^w ulagal]
<u>fasamaxa</u>	"pebble"	[fasamagal]
<u>magaaxu</u>	"clothes"	[maga:gul]
<u>buxu</u>	"knot"	[b ^w ugul]
<u>tetteraxe</u>	"sailing"	[tet:eragel]

<u>bbarexe</u>	"pain"	[b ^w :aregel]
<u>lêbaaxe</u>	"to hide"	[ləb ^w a:gel]
<u>tòxòxé</u>	"coconut shell"	[təgəgəl]
<u>kaxoo</u>	"box"	[kəgo:l]
<u>tamaxoo</u>	"cigarette"	[taməgo: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 PR's 35 & 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 2,500 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:] | |
| | [b ^w a:rko] | "ship" | [bucik:ar] | "hot" |

[k]		[k:]	
[likam ^w lm ^w l]	"hide & seek"	[farak:ataw]	"become rich"
[piska]	"spear"	[kək:ac]	"to throw"
[maleka:xO]	"travel"	[mak:a1]	"comb"
[meriken]	"America"	[suk:ut]	"a little"
[makil] (Falalop)	"sugar cane"	[wak:ey]	"cow, ox"
[lokə]	"lock"	[xak:ula]	"kind"
[muku]	"to tremble"		
[kɔ:kɔm ^w]	"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. [ɔar] "to walk" and [ɔ: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 [a] 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 [a] prove to be conditioned variants of a (see PR 32). Some of the examples in (E 11) & (E 12) are phonemicized as:

- (E 28) waxa-li "vein of" : waxa-la "his vein"
waa-li "canoe of" : waa-la "his canoe"
mada "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 contrast, the problem lies in the interpretation of [ɛ̃]. 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 [pɛ̃] "arm" and [pɛ̃:l] "arm of" correspond:

- Sonsorol : paaw & pawiri
 Tobi : paawi & pawir
 Woleai : paayi & payul
 Ifaluk : paawi & pawul

To Ulithian [ca:y] "leaf" and [cɛ̃:l] "leaf of" correspond:

- Sonsorol : saawi & saawiri
 Tobi : caawi & caawir

To Ulithian [tɛ:s] "porcupine fish" correspond:

Sonsorol : tayiθ

Tobi : tawis

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 [ɛ:] 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], [ɛyə], [ɛwu], and [ɛwə]. Thus it may be hypothesized that [ɛ:] has developed from one or more of these sequences. The construct form of [ca:y] is [cɛ:l]. Therefore, the base form may be reconstructed as cayɛ and then the independent form will be derived by dropping the final vowel and giving compensatory lengthening, i.e. [ca:y]. [pɛ] and [pɛ:l] should be handled differently because they do not show parallel alternation. Ulithian ɛ corresponds in many cases to a of other Trukic languages, and Ulithian u to i. Thus the base form of [pɛ] will be set up as pawWu in which W is introduced as a device to block compensatory lengthening in independent form (see PR's 41-43). The other examples such as [tɛ:s] and [dɛ:r] "indebtedness" may be handled as either ayɛ or awu. The latter will be followed consistently simply because it seems to be more correspondent to the forms of the neighboring 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

<u>p</u> :	<u>pare</u>	"a kind of fruit"	<u>tapa</u>	"cheek"
<u>t</u> :	<u>tale</u>	"rope"	<u>tata</u>	"a kind of fish"
<u>c</u> :	<u>cale</u>	"water"	<u>faca</u>	"pandanus fruit"
<u>k</u> :	<u>kakka</u>	"to carry"	<u>piskaa</u>	"spear"
<u>b</u> :	<u>bade</u>	"scar"	<u>taba</u>	"taboo"
<u>f</u> :	<u>fase</u>	"stone"	<u>yafa</u>	"swimming"
<u>d</u> :	<u>daa</u>	"intestine"	<u>fade</u>	"string"
<u>s</u> :	<u>sare</u>	"big knife"	<u>fasa</u>	"penis"
<u>x</u> :	<u>xapi</u>	"bottom, hip"	<u>waxa</u>	"vein"
<u>h</u> :	<u>hale</u>	"man"	<u>mehēe</u>	"to look for"
<u>m</u> :	<u>male</u>	"animal, bird"	<u>lama</u>	"light bulb"
<u>n</u> :	<u>naanaa</u>	"mammy"	<u>sukuun</u>	"school"
<u>g</u> :	<u>gaag</u>	"I"	<u>faga</u>	"to permit"
<u>l</u> :	<u>lage</u>	"sky"	<u>cale</u>	"water"
<u>r</u> :	<u>rale</u>	"day"	<u>baro</u>	"box"
<u>y</u> :	<u>yala</u>	"sun"	<u>xaya</u>	"fish hook"
<u>w</u> :	<u>waa</u>	"canoe"	<u>wawa</u>	"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.

<u>p</u>	: <u>pp</u>	: <u>pale</u>	"dry"	<u>ppale</u>	"light"
		<u>capPi</u>	"ancestor"	<u>cappa</u>	"turning over"
<u>c</u>	: <u>cc</u>	: <u>caga</u>	"short of reach"	<u>ccaga</u>	"skinny"
<u>k</u>	: <u>kk</u>	: <u>makili</u>	"sugar cane"	<u>makkala</u>	"comb" (Falalop)
<u>b</u>	: <u>bb</u>	: <u>barexe</u>	"hot (taste)"	<u>bbarexe</u>	"pain"
		<u>bece</u>	"hot"	<u>bbece</u>	"white"
		<u>wuba</u>	"chest"	<u>bubbu</u>	"fish spec."
<u>f</u>	: <u>ff</u>	: <u>fisi</u>	"star"	<u>ffisi</u>	"lightening"
		<u>yafe</u>	"fire"	<u>yaffe</u>	"land crab"
<u>d</u>	: <u>dd</u>	: <u>dare</u>	"to walk"	<u>ddare</u>	"to run"
<u>s</u>	: <u>ss</u>	: <u>sogo</u>	"mangrove"	<u>ssogo</u>	"angry"
		<u>kakkassiya</u>	"be asking"	<u>kakkasi</u>	"be taking"
<u>h</u>	: <u>hh</u>	: <u>hblo</u>	"desire"	<u>hhblo</u>	"generous, kind"
		<u>mixilici</u>	"nicer"	<u>hhixi</u>	"pepper"
<u>m</u>	: <u>mm</u>	: <u>mata</u>	"eye"	<u>mmata</u>	"to wake up"
		<u>madare</u>	"to disperse"	<u>mmadare</u>	"to burst"
<u>g</u>	: <u>gg</u>	: <u>gata</u>	"hole"	<u>ggata</u>	"hurry"
		<u>fayelaga</u>	"world"	<u>fayigga</u>	"itchy feeling"
<u>l</u>	: <u>ll</u>	: <u>loyYo</u>	"perfume"	<u>lloyo</u>	"wet"
<u>r</u>	: <u>rr</u>	: <u>ro-</u>	"all"	<u>rro-</u>	"string-bound bundle"
		<u>raxe</u>	"year, age"	<u>rrayi</u>	"happy"
<u>y</u>	: <u>yy</u>	: <u>wayele</u>	"plane"	<u>fayye</u>	"to whet"
				<u>xayyoro</u>	"to clean anus"
<u>w</u>	: <u>ww</u>	: <u>wele</u>	"strange, different"	<u>wwele</u>	"straight"
				<u>buyowwe</u>	"fishing trap"

(3) vowels

<u>i</u>	:	<u>lli</u>	"to kill"	<u>cibe</u>	"scissors"		
<u>e</u>	:	<u>lee</u>	"this"	<u>pecee</u>	"leg"		
<u>â</u>	:	<u>lâ</u>	"as, which"	<u>pâce</u>	"sexual lust"		
<u>a</u>	:	<u>laa</u>	"that"	<u>capi</u>	"lavalava"	<u>paca</u>	"tail"
<u>ô</u>	:	<u>côô</u>	"people"	<u>lloyo</u>	"sweet"	<u>bôlo</u>	"feather"
<u>u</u>	:	<u>cuu</u>	"to meet"	<u>lloyo</u>	"wet"	<u>bolo</u>	"soil"
<u>é</u>	:	<u>té</u>	"for a moment"	<u>légé</u>	"ant"	<u>bbélé</u>	"filthy"

(4) short vs. long vowels

In the base form phonemicization, 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:

<u>i</u>	:	<u>ii</u>	:	<u>cima</u>	"head"	<u>cilfeli</u>	"nail"
<u>e</u>	:	<u>ee</u>	:	<u>fedexe</u>	"fight"	<u>feefele</u>	"woman"
<u>â</u>	:	<u>ââ</u>	:	<u>bâxi</u>	"to float (Vt)"	<u>xââtaa</u>	"to do what"
<u>a</u>	:	<u>aa</u>	:	<u>xaamami</u>	"we (excl)"	<u>xaamaama</u>	"to practice"
				<u>fale</u>	"food pounder"	<u>faale</u>	"synical"
<u>ô</u>	:	<u>ôô</u>	:	<u>bôgu</u>	"feast"	<u>bôôdê</u>	"nose"
<u>o</u>	:	<u>oo</u>	:	<u>bolo</u>	"soil"	<u>booto</u>	"boat"
<u>u</u>	:	<u>uu</u>	:	<u>lutu</u>	"to jump"	<u>luutu</u>	"soft wood"
				<u>buru</u>	"high tide"	<u>duuduu</u>	"to bathe"

<u>é</u> : <u>éé</u>	:	<u>dèrè</u>	"women's lavalava"	<u>téésé</u>	"truth"
		<u>fèlaga</u>	"ashes"	<u>yiréété</u>	"village"

3.5.3. Suprasegmental Phonemes

(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. [xamaθ] "to cook"
 [xa // maθ] "always cooked"
- b. [te-kamudi:di] "very pretty"
 [te // kamudi:di] "not pretty"
- c. [re-yeŋa:ŋ] "worker"
 [re // yeŋa:ŋ] "They work."

Although the absence of + juncture in a morpheme boundary may effect some phonetic change on the neighboring 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 \nearrow , \searrow , and \rightarrow 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 Yulidiy ↗
 "Did you go to Ulithi?"

(4) four pitch levels

Four contrasting phonemic pitch levels are recognized: 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) ²Xo + be + ³yiyaa¹ ↘
 you where
 "Where are you going?"

²Yi + be + loxo + ³sukuun¹ ↘
 "I'm going to school."

²Ye + sa + dabe-ya + ²wayele³ ↗
 "Did he go by plane?"

²Ye + sa + dabe-ya + ²wayele⁴ ↗
 "Is it true that he went by plane?"

²Ye + weri + ³se-male + medaa¹ ↘
 what, something
 "He saw one (animate) thing."

²Ye + weri + se-male + ²medaa³ ↗
 "He saw something?"
 (animate)

²Ye + weri + ⁴se-male + medaa¹ ↘
 "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)	<u>base</u>	<u>surface</u>	
	<u>diddi</u>	[diθ]	"sewing"
	<u>diddi-li</u>	[did:iɪ]	"sewing of"
	<u>cox</u>	[cox]	"just"

In principle, no cluster of nonidentical consonants may occur word-initially on the surface. Clusters are allowed in medial position, however, in which case an excrement 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)	<u>base</u>	<u>surface</u>	
	<u>walsuu</u>	[walsu]	"tomorrow"
	<u>malboo</u>	[malbo]	"maybe"
	<u>piltaa</u>	[pilta]	"to close"
	<u>sandee</u>	[sande]	"Sunday"
	<u>kantine</u>	[kantin]	"store"
	<u>nambaa</u>	[namb ^w a]	"number"
	<u>baarkoo</u>	[b ^w a:rko]	"ship"
	<u>təxtaa</u>	[təxta]	"doctor"

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

- (E 35) [a:m^w] "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 the 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) [ya:l] "sun" : [wa:l] "his canoe"
 [b^web^wayel] "papaya of" : [b^wob^wawel] "bamboo of"
 [wa:y] "my canoe" : [wa:w] "stick dance"

[y] and [w] contrast with \emptyset initially and finally.

- (E 37) [ya:m^w] "your object" : [wa:m^w] "your canoe" :
 [a:m^w] "administration"
 [cuy] "to disappear" : [cu] "to meet"
 [luw] "surprised" : [lu] "coconut"

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

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

The phonemicization 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:

$$i. \begin{Bmatrix} [y] \\ \emptyset \end{Bmatrix} \longrightarrow \underline{y} / \begin{Bmatrix} \underline{V} \\ \# \end{Bmatrix} \text{---} \begin{Bmatrix} \underline{i} \\ \underline{e} \end{Bmatrix}$$

$$(E 38) \begin{Bmatrix} [yi] \\ [i] \end{Bmatrix} \text{"I"} \longrightarrow \underline{yi} ; \begin{Bmatrix} [yiwe] \\ [iwe] \end{Bmatrix} \text{"then"} \longrightarrow \underline{yiwee}$$

$$\begin{Bmatrix} [ye] \\ [e] \end{Bmatrix} \text{"he"} \longrightarrow \underline{ye} ; \begin{Bmatrix} [yi:ya] \\ [i:ya] \end{Bmatrix} \text{"where"} \longrightarrow \underline{yiyaa}$$

$$\begin{Bmatrix} [wayel] \\ [wael] \end{Bmatrix} \text{"plane"} \longrightarrow \underline{wayele}$$

$$ii. \begin{Bmatrix} [y] \\ \emptyset \end{Bmatrix} \longrightarrow \begin{Bmatrix} \underline{y} \\ \emptyset \end{Bmatrix} / \begin{Bmatrix} \underline{ii} \\ \underline{i} \end{Bmatrix} \text{---} \#$$

$$(E 39) \begin{Bmatrix} [(y)i:y] \\ [(y)i:] \end{Bmatrix} \text{"he (Pro)"} \longrightarrow \underline{yiy}$$

$$[(y)i] \text{"I"} \longrightarrow \underline{yi}$$

$$iii. \begin{Bmatrix} [w] \\ \emptyset \end{Bmatrix} \longrightarrow \underline{w} / \begin{Bmatrix} \underline{V} \\ \# \end{Bmatrix} \text{---} \underline{u}$$

$$(E 40) \begin{Bmatrix} [wu:c] \\ [u:c] \end{Bmatrix} \text{"banana"} \longrightarrow \underline{wucu}$$

$$\begin{Bmatrix} [wu:b^w] \\ [u:b^w] \end{Bmatrix} \text{"chest"} \longrightarrow \underline{wuba}$$

$$\begin{Bmatrix} [cariwuriw] \\ [cariuriw] \end{Bmatrix} \text{"to shine"} \longrightarrow \underline{cariwuriwa}$$

3.6. Morphophonemic Rules

3.6.1 General

As mentioned in 2.2.2, two kinds of morphophonemic rules are differentiated in this study: (1) feature realization 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 realized as inherent base forms. As lexical formatives, all verbs associated with <+Prog> (see RR 1) are dealt with, which will be realized 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 neighboring 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 organized about the above points one-by-one. The necessity of giving the rules some further ordering also contributes to the difficulty of organizing their presentation around the above points. 3.6.4 may serve a recapitulation under this situation. Idiosyncratic alternations are not handled, since they are rather to be specified in the lexicon.

3.6.2 Feature Realization Rules

$$\begin{array}{c}
 \text{PR 14} \\
 \left[\begin{array}{c} \text{Pm} \\ \text{At} \\ \text{Os} \end{array} \right]_1 + \left[\begin{array}{c} [+SP, +SG] \\ [+HR, +SG] \\ [+Pro, -SP, -HR, +SG] \\ \left\{ \begin{array}{l} [-Pro, -SP, -HR, -Ani] \\ [-Pro, -SP, -HR, +Ani, +SG] \end{array} \right\} \\ [+SP, +HR] \\ [+SP, -HR, -SG] \\ [-SP, +HR, -SG] \\ [-SP, -HR, +Ani, -SG] \end{array} \right]_2 \Rightarrow \left[\begin{array}{c} \left[\begin{array}{c} \text{yi} \\ \text{yi} \\ \text{yeyi} \end{array} \right]_1 \\ \left[\begin{array}{c} \text{xo} \\ \text{mu} \\ \text{xo} \end{array} \right]_1 \\ \left[\begin{array}{c} \text{ye} \\ \left[\begin{array}{c} \text{la} \\ \text{li} \end{array} \right]_3 \\ \text{ya} \end{array} \right]_1 \\ \left[\begin{array}{c} \text{si} \\ \text{ca} \\ \text{xica} \end{array} \right]_1 \\ \left[\begin{array}{c} \text{xa} \\ \text{mami} \\ \text{xomami} \end{array} \right]_1 \\ \left[\begin{array}{c} \text{xa} \\ \text{miyi} \\ \text{xomiyi} \end{array} \right]_1 \\ \left[\begin{array}{c} \text{re} \\ \text{yire} \\ \text{yVre} \end{array} \right]_1 \end{array} \right]_2
 \end{array}$$

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 TR's 1 & 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 FR 14 that non-animate plural nouns go with singular nouns in their syntactic behavior, i.e. in their agreement with the related Pm, At, or Os particles.

(E 41) a1. Re buu doxo tēxtaa kalaa mē Saapan.

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

"Those doctors came from Japan."

a2. Ye buu doxo wayele kalaa mē Meriken.

Pm	[plane
-Pro	+N
-SP	-Pro
-HR	-SP
-Ani	-HR
-SG	-Ani
	-SG

"Those planes came from America."

a3. Ye buu doxo yeliwici laay mē Moxmox.

Pm	[child
-Pro	+N
-SP	-Pro
-HR	-SP
+Ani	-HR
+SG	+Ani
	+SG

"That child came from Mogmog."

b1. babyoro-yire yaramata kawee "book about the

book	At	[people	those	people"
		+N		
-Pro		-Pro		
-SP		-SP		
-HR		-HR		
+Ani		+Ani		
-SG		-SG		

b2. babiyoro-li xalesiyaa kawee "book about the
At church churches"

$$\begin{bmatrix} \dots \\ -\text{Ani} \\ -\text{SG} \end{bmatrix} \begin{bmatrix} \dots \\ -\text{Ani} \\ -\text{SG} \end{bmatrix}$$

PR 15 $\langle +\text{Prog} \rangle + \begin{bmatrix} C_1(C_1)V_1(V_1)Z \\ C_1V_1C_2V_2 \end{bmatrix} \Rightarrow \begin{bmatrix} C_1V_1C_1(C_1)V_1(V_1)Z \\ C_1V_1C_2C_1V_1C_2V_2 \end{bmatrix}$

$$/ \# _ \{ + \}$$

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) $:= \Rightarrow C_1V_1C_1(C_1)V_1(V_1)Z$

suu "to stand" \Rightarrow susu "to be standing"

pugu "to fall" \Rightarrow pupugu "to be falling"

ttaxace "to let free" \Rightarrow tattaxace "to be letting free"

yegaage "to work" \Rightarrow 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 & E 45).

(E 43) $:= \Rightarrow C_1V_1C_2C_1V_1C_2V_2$

lutu "to jump" \Rightarrow lutlutu "to be jumping"

loxo "to go" \Rightarrow loxloxo "to be going"

pugu "to fall" \Rightarrow 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"
xèrxèru "to scratch" : xèrxèru "to be scratching"
rogrogo "to hear" : rogrogo "to be hearing"
hèhèe "to look for" : hèhèhèe "to be looking for"
faxfafa "to cough" : faxfafa "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 "to be moving"
(along with mamaxudxudu)
maroe "to sit" : maroroe "to be sitting"
(*mamaroroe)

PR 16 $C_1 \Rightarrow C_1 C_1 / \#C_1 V_1 _ V_1 Z$

where C_1 = a nasal, k or x

PR 16 doubles the indicated consonants following a reduplicated prefix.

- (E 46) mogoyo "to eat" \Rightarrow *momogoyo \Rightarrow mommogoyo "to be eating"
mele "to stay" \Rightarrow *memele \Rightarrow memmele "to be staying"
ggase "to breathe" \Rightarrow gaggase "to be breathing"
kacapara "to tell a lie" \Rightarrow *kakacapara \Rightarrow kakkacapara
"to be telling a lie"
kamaaxo "to watch" \Rightarrow *kakamaaxo \Rightarrow kakkamaaxo "to be watching"

xasi "to carry" \Rightarrow *xaxasi \Rightarrow *xaxxasi "to be carrying"
xatmada "to cook" \Rightarrow *xaxatmada \Rightarrow *xaxxatmada "to be cooking"
xatowase "to destroy" \Rightarrow *xaxatowase \Rightarrow *xaxxatowase
"to be destroying"

PR 17 xVxx \Rightarrow 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, PR's 15, 16, and 17 obligatorily apply.

(E 47) *xaxxasi \Rightarrow kakkasi "to be carrying"
*xaxxatmada \Rightarrow kakkatmada "to be cooking"
*xaxxatowase \Rightarrow kakkatowase "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"
pallegele "very big, all big"
taxiyata "high" : tataxiyata "to be becoming high"
taxiyatyata "very high"

3.6.3. Phonetic Rules

(1) Morphologically conditioned.

PR 18 $\left[\begin{array}{c} sa \\ saab \end{array} \right] \Rightarrow \left[\begin{array}{c} ya \\ yaab \end{array} \right] / \left[\begin{array}{c} si \\ \text{Pm} \end{array} \right] \# \left[\quad \right] \text{TA}$

Tense-aspect particles (TA) sa and saab undergo a dissimilation after

predication marker si "we (incl)".

(E 49) si #sa #loxo \Rightarrow si #ya #loxo

"Let's go."

si #saab #xola + ya +daxe \Rightarrow si #yaab #xolatya +daxe
arrive it up

"We would barely arrive there."

PR 19 (OP) $\left[\begin{array}{c} u \\ i \end{array} \right] \Rightarrow \left[\begin{array}{c} \acute{e} \\ e \end{array} \right] / _ + \left[\begin{array}{c} \sim yi \\ \sim yire \end{array} \right]_{At} \#$

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

(E 50) fèèru + li \Rightarrow fèèré + li
making of

barexi + li \Rightarrow barexe + li
hot(taste)

weri + li \Rightarrow were + li
seeing

ciifeli + li \Rightarrow ciifele + li
nail

<u>taxuru +</u> back	$\left[\begin{array}{c} \underline{mu} \\ \underline{la} \\ \underline{li} \\ \underline{ca} \\ \underline{mami} \\ \underline{miyi} \end{array} \right]$	\Rightarrow <u>taxuré</u>	+	$\left[\begin{array}{c} \underline{mu} \\ \underline{la} \\ \underline{li} \\ \underline{ca} \\ \underline{mami} \\ \underline{miyi} \end{array} \right]$	"your" "his" "of" "our(incl)" "our(excl)" "your(pl)"
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<u>taxuru +</u>	$\left\{ \begin{array}{l} \underline{yi} \\ \underline{yire} \end{array} \right.$	\Rightarrow * <u>taxuré + yi</u>
		\Rightarrow * <u>taxuré + yire</u>

$$\text{PR 20} \quad V_1 + [ya] \quad O_s \implies \begin{cases} V_1 V_1 \\ \text{aa}^\leftarrow \end{cases} / _ + \text{DIR}$$

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.

$$\text{(E 51)} \quad \begin{array}{l} \underline{\text{fidi}} + \underline{\text{ya}} + \underline{\text{loxo}} \\ \text{to-go-with him} \quad \text{thither} \\ \quad \quad \quad \quad \quad \quad (\text{DIR}) \end{array} \implies \begin{array}{l} \{ \text{fidii} \} \\ \{ \text{fidaa}^\leftarrow \} \end{array} + \text{loxo}$$

$$\begin{array}{l} \underline{\text{meri}} + \underline{\text{ya}} + \underline{\text{doxo}} \\ \text{to search} \quad \quad \quad \text{hither} \end{array} \implies \begin{array}{l} \{ \text{merii} \} \\ \{ \text{mera}^\leftarrow \} \end{array} + \text{doxo}$$

$$\begin{array}{l} \underline{\text{suuxu}} + \underline{\text{ya}} + \underline{\text{daxe}} \\ \text{to open} \quad \quad \quad \text{up} \end{array} \implies \begin{array}{l} \{ \text{suuxuu} \} \\ \{ \text{suuxaa}^\leftarrow \} \end{array} + \text{daxe}$$

$$\begin{array}{l} \underline{\text{xa}} + \underline{\text{molo}} + \underline{\text{ya}} + \underline{\text{loxo}} \\ \text{tr finished} \\ \text{"to finish up"} \end{array} \implies \text{xa} + \begin{array}{l} \{ \text{moloo} \} \\ \{ \text{mola}^\leftarrow \} \end{array} + \text{loxo}$$

$$\begin{array}{l} \underline{\text{yalda}} + \underline{\text{ya}} + \underline{\text{loxo}} \\ \text{to open} \end{array} \implies \text{yaldaa}^\leftarrow + \text{loxo}$$

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

$$\text{(E 52)} \quad \begin{array}{l} \underline{\text{meri}} + \underline{\text{doxo}} + \underline{\text{ya}} \\ \text{to search} \quad \quad \quad \text{it} \end{array} \implies \begin{array}{l} \{ *merii \} \\ \{ *mera^\leftarrow \} \end{array} + \text{doxo} + \text{ya}$$

$$\begin{array}{l} \underline{\text{molo}} + \underline{\text{loxo}} \\ \text{to be} \\ \text{finished} \end{array} \implies \begin{array}{l} \{ *moloo \} \\ \{ *mola^\leftarrow \} \end{array} + \text{loxo}$$

PR 21 awu = ⇒ óó / + $\left[\begin{array}{l} \sim yi \\ \sim yire \end{array} \right]_{At}$

The sequence awu assimilates to a monothongal long vowel óó when followed by a suffix other than yi "my" and yire "their."

(E 53) bawu + li = ⇒ bóó + li
fishing pole of

Cf. ind. form [b^wa:w]

fawu + xili + ya = ⇒ fóó + xili + ya
to row for him

lawu + mu = ⇒ lóó + mu
child

yawu + li = ⇒ yóó + li
string

ccawu + li = ⇒ ccóó + li
heavy

lawu + li = ⇒ lóó + li
wave

but: mawulu = ⇒ *móólu
war

ttawulu = ⇒ *ttóólu
to shout

lawu + yi = ⇒ *lóó + yi
child my

lawu + yire = ⇒ *lóó + yire
 their

Cf. lawu + mami = ⇒ lóó + mami
 our(excl)

PR 22 (OB) (OP) 1(L)V = ⇒ ∅ /#CV + $\left[\begin{array}{l} li \\ la \end{array} \right]_{At} \#$

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. [+PR22]

xala + li \Rightarrow xa + li ([xal[◌]])
 food
 (C1) la \Rightarrow xa + la ([xal[◌]])

xilli + li \Rightarrow xi + li ([xil[◌]])
 skin
 (PAN:kulit) la \Rightarrow xi + la ([xil[◌]])

cale + li \Rightarrow ca + li ([cal[◌]])
 (PAN:/dD/anum)

tale + li \Rightarrow ta + li ([tal[◌]])
 rope
 (PAN:talih)

male + li \Rightarrow ma + li ([mal[◌]])
 man

male + li \Rightarrow ma + li ([mal[◌]])
 bird, animal

b. [+PR22]

mele + li \Rightarrow { me } + li
 sailing
 rope { mele }

wolo + li \Rightarrow { wo } + li
 turtle { wolo }

molo + li \Rightarrow { mo } + li
 fish spec. { molo }

bole + li \Rightarrow { bo } + li
 ground { bolo }

c. [-PR22]

fale + li \Rightarrow 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 \Rightarrow 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 \Rightarrow sulu # yixe
 3

fisu # yexe \Rightarrow fisu # yixe
 7

wlu # yexe \Rightarrow walu # yixe
 8

PR 24 a \Rightarrow $\begin{bmatrix} \text{é} \\ \\ \text{o} \\ \\ \text{e} \end{bmatrix} / \text{u} + \begin{bmatrix} \{ \text{f} \text{ ___ } \text{se} \} \\ \{ \text{m} \text{ ___ } \text{le} \} \\ \\ \{ \text{y} \text{ ___ } \text{le} \} \\ \{ \text{y} \text{ ___ } \text{ye} \} \\ \\ \text{y} \text{ ___ } \text{fe} \end{bmatrix}$
 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 \Rightarrow sulu + fése
 3 round ob.

sulu + male \Rightarrow sulu + mèle
 animate

$\frac{\text{fisu}}{7} + \frac{\text{yale}}{\text{line}} \Rightarrow \text{fisu + yole}$

$\frac{\text{fisu}}{\text{long ob.}} + \frac{\text{yale}}{\text{long ob.}} \Rightarrow \text{fisu + yoye}$

$\frac{\text{wálu}}{8} + \frac{\text{yale}}{\text{bundle}} \Rightarrow \text{wálu + yefe}$

$\frac{\text{wálu}}{\text{bundle}} + \frac{\text{fase}}{\text{bundle}} \Rightarrow \text{wálu + fése}$

PR 25 $a \Rightarrow e / \left[\begin{array}{c} \text{se} \\ \text{faay} \\ \text{wóle} \end{array} \right]_{\text{Nus}} + [y_le]_{\text{Nucl}}$

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

(E 57) $\frac{\text{se}}{1} + \frac{\text{yale}}{\text{line}} \Rightarrow \text{se + yele}$
 $\frac{\text{faay}}{4} + \frac{\text{yale}}{\text{line}} \Rightarrow \text{faay + yele}$
 $\frac{\text{wóle}}{6} + \frac{\text{yale}}{\text{line}} \Rightarrow \text{wóle + yele}$

For numerative paradigms, see 3.6.4.

PR 26 $+ \Rightarrow \emptyset / \#Z_Z \left\{ \begin{array}{l} + \\ \# \end{array} \right\}$

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

(E 58) $\frac{\text{xa}}{\text{tr}} + \frac{\text{duuduu}}{\text{to bathe}} + \frac{\text{xica}}{\text{us(incl)}} \Rightarrow \text{xaduuduu + \text{xica} \Rightarrow \text{xaduuduu xica$

(2) Phonologically Conditioned.

The following set of rules (except for PR's 41, 44 & 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 $\left\{ \begin{array}{c} e \\ \acute{e} \\ a \end{array} \right\} \Rightarrow V_1 / _ (\#) \begin{array}{c} C \\ [+back] \end{array} \begin{array}{c} V_1 \\ [+back] \end{array} Z\#$

$\left\{ \begin{array}{c} e \\ \acute{e} \\ a \end{array} \right\}$ 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, m, or w).

(E 59) $\frac{se}{1} + \frac{xaye}{\text{tree-like object}} \Rightarrow se \ xaye \Rightarrow sa \ xaye$ PR26

$\frac{se}{1,000} \# \frac{garase}{1,000} \Rightarrow sa\#garase$; $\frac{ruw\acute{e}}{2} + \frac{wo}{\text{gen. ob.}} \Rightarrow ruwowo$

$\frac{se}{\text{bundle of ten}} + \frac{g\acute{o}lo}{5} \Rightarrow so \ g\acute{o}lo$; $\frac{lima}{5} + \frac{wo}{5} \Rightarrow limowo$

$\frac{se}{100} \# \frac{buxuya}{100} \Rightarrow su\#buxuya$; $\frac{diwa}{9} + \frac{wo}{9} \Rightarrow diwowo$

$\frac{se}{\text{a little}} + \frac{-xufede}{\text{a little}} \Rightarrow suxufede$

$\frac{re}{\text{they carry it}} \# \frac{xasi}{\text{carry}} + \frac{tya}{\text{it}} \Rightarrow ra \ \# \ xasi \ ya$

$\frac{ye}{\text{he eats it}} \# \frac{xagi}{\text{eats}} + \frac{tya}{\text{it}} \Rightarrow ya \ \# \ xagi \ ya$

$\frac{te}{\text{not know it}} \# \frac{xula}{\text{know}} + \frac{tya}{\text{it}} \Rightarrow tu \ \# \ xula \ ya$

te # xola + ya \Rightarrow to # xola ya
reach iy

dabe + xo \Rightarrow dabo xo
to follow you

exception: se + wo \Rightarrow *so wo

PR 28 a \Rightarrow $\left[\begin{array}{c} \acute{e} \\ \left[\begin{array}{c} o \\ \acute{e} \end{array} \right]_2 \end{array} \right]_1 / \left[\begin{array}{c} Vy \\ \tilde{a} \\ \left[\begin{array}{c} P \\ \tilde{P} \end{array} \right]_2 \end{array} \right]_1 \quad \text{--- mu \#}$

where P = p, m, B (B = b, m, 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 \Rightarrow yuya mu \Rightarrow yuy \acute{e} mu
neck PR26

siya + mu \Rightarrow siy \acute{e} mu
belly

xa + bbawo + ya + mu \Rightarrow xa bbawo y \acute{e} mu
tr stink it

"what you made stink"

dipa + mu \Rightarrow dipo mu
feeling

lewa + mu \Rightarrow lewo mu
tongue

lema + mu \Rightarrow lemo mu
drinking
object

talega + mu \Rightarrow talegè mu
ear

bullà + mu \Rightarrow bullè mu
heart

ciha + mu \Rightarrow ciho mu
head

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

(E 61) yawa + mu \Rightarrow yawa mu
mouth

tapa + mu \Rightarrow tapa mu
cheek

waxa + mu \Rightarrow waxa mu
vein

yafara + mu \Rightarrow yafara mu
shoulder

PR 29 ayire \Rightarrow ààre /C_#

This rule states that a single a and yi in yire (attributive suffix "their") are mutually assimilated, yielding àà [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 \Rightarrow mata yire \Rightarrow mataààre
eye their PR26

siya + yire \Rightarrow siyààre
belly

paaga- + yire \Rightarrow paagààre
all

lepada + yire \Rightarrow lepadààre
between

xala + yire \Rightarrow xalààre
food

$$\text{PR 30} \quad V_1(V_1) \quad \left\{ \begin{array}{l} \text{yire} \\ \text{yVre} \end{array} \right\} \Rightarrow V_1V_1\text{re} / _ \#$$

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 \Rightarrow waa yire \Rightarrow waare
canoe their PR26

cii + yire \Rightarrow ciire
bone

farowaa + yire \Rightarrow farowaare
lung

yiree + yire \Rightarrow yireere
at

bãã + yire \Rightarrow bããre
floating

yimòò + yire \Rightarrow yimòòre
front

bisi- + yire \Rightarrow bisiir
brother

xamare + yire \Rightarrow xamareere
sweetheart

soxo + yire \Rightarrow soxoore
stick

mata + yVre \Rightarrow mataare
to lead them

supi + yVre \Rightarrow supiiire
to cut

lawulu + yVre \Rightarrow lawuluure
to have
as child

lli + yVre \Rightarrow lliire
to kill

xa + suu + yVre \Rightarrow xasuure
tr stand

PR 31 a \Rightarrow $\left[\begin{array}{c} e \\ \\ \\ \acute{e} \end{array} \right] \quad / \quad \left[\begin{array}{c} \left\{ \begin{array}{c} Vy \\ \{i\} \\ \{e\} \end{array} \right\} C \\ \\ \left\{ \begin{array}{c} \acute{e} \\ o \\ u \end{array} \right\} C \end{array} \right] \text{--- } \tilde{B} i$

where \tilde{B} = any consonant other than b, m, 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 \Rightarrow lewa yi \Rightarrow lewe yi
tongue my PR 26

xa + faxola + ya + yi \Rightarrow xafaxolaye yi
tr grow it

"what I have grown"

wuba + li \Rightarrow wub \acute{e} li
chest of

yida + li \Rightarrow yide li
name

yima + li \Rightarrow yim \acute{e} li
house

bullla + li \Rightarrow bull \acute{e} li
heart

xota + miyi \Rightarrow xoté miyi
 covering your(pl)
 object

yulééga + miyi \Rightarrow yuléégé miyi
 pillow

xa + madafa + ya + miyi \Rightarrow xamadafaye miyi
 tr clear it

PR 32

$$\begin{bmatrix} a \\ aa \end{bmatrix}_1 \Rightarrow \begin{bmatrix} a^< \\ a^<a^< \end{bmatrix}_1 / \begin{bmatrix} \{i\} \\ \{e\} \\ \{a\} \\ \{b\} \\ \{\#\} \end{bmatrix}_2 \tilde{B} _ C \begin{bmatrix} \# \\ \{i\} \\ \{e\} \\ \{é\} \end{bmatrix}_2$$

where \tilde{B} is any consonant (single or double) other
 than b, m, 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 \Rightarrow yila^{<a} ; made \Rightarrow ma^{<de}
 that sated

belaa \Rightarrow bela^{<a} ; capPi \Rightarrow ca^{<pPi}
 shoes ancestor

waa + li \Rightarrow wa^{<a} li; balle \Rightarrow ba^{<lle}
 canoe of inspection

balla + li \Rightarrow balla< li; tama + li \Rightarrow tama< li
stuck

fasa + yi \Rightarrow fasa< yi; xa + yale \Rightarrow xaya<le
penis my tr fly

fadè + li \Rightarrow fa<dè li
eyebrow

PR 33 aya \Rightarrow a<a< / C $\left\{ \begin{array}{l} \# \\ C \end{array} \right\}$

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 \Rightarrow lima yale \Rightarrow lima<a<le
5 line PR26
(Nucl)

diwa + yale \Rightarrow diwa<a<le
9

lima + yaye \Rightarrow lima<a<ye
long-slender
object

diwa + yafe \Rightarrow diwa<a<fe
string-bound
bundle

xarepa + ya \Rightarrow xarepa<a<
to approach it
(Os)

yalda + ya \Rightarrow yalda<a<
to open it

xa + madafa + ya \Rightarrow xamadafa<a<
tr clear it
"to explain"

xula + ya \Rightarrow 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 \Rightarrow [tugu(y)]
to hit it

fèèru + ya \Rightarrow [fə:ru(y)]
to make it

but: xola + ya \Rightarrow $\left\{ \begin{array}{l} *[\text{xola}(y)] \\ [\text{xola}] \end{array} \right.$
to catch

It should be noted that if the sequence aya has undergone any change (e.g. \Rightarrow 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 \Rightarrow xamadafaye yi
tr clear it my PR31
"what I explained"

xa + madafa + ya \Rightarrow xamadafa'a'
PR33

PR 34 $\left[\begin{array}{c} \text{o} \\ Vq \end{array} \right] \Rightarrow \left[\begin{array}{c} \text{o}^{\wedge} \\ Vq^{\wedge} \end{array} \right] / \text{--- C i}$

where $Vq = \underline{ee}, \underline{h\underline{h}}, \underline{\delta\underline{\delta}}, \underline{oo}$

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 o on the one hand and single e and h or h and a on the other. Therefore, it is tentatively assumed that single h and o 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) $\frac{\text{soxo}}{\text{stick}} + \frac{\text{li}}{\text{of PR26}} \Rightarrow \text{soxo li} \Rightarrow \text{soxo}^\wedge \text{li}$

(Cf. $\frac{\text{soxo}}{\text{his}} + \frac{\text{la}}{\text{his}} \Rightarrow \text{soxo}^\vee \text{la}$)

$\frac{\text{mago}}{\text{forehead}} + \frac{\text{li}}{\text{forehead}} \Rightarrow \text{mago}^\wedge \text{li}$

$\frac{\text{xologo}}{\text{body}} + \frac{\text{li}}{\text{body}} \Rightarrow \text{xologo}^\wedge \text{li}$

$\frac{\text{loso}}{\text{boil}} + \frac{\text{yi}}{\text{boil}} \Rightarrow \text{loso}^\wedge \text{yi}$

$\frac{\text{bee}}{\text{fortune}} + \frac{\text{li}}{\text{telling}} \Rightarrow \text{be}^\wedge \text{e}^\wedge \text{li}$

$\frac{\text{b\AA\AA}}{\text{floating}} + \frac{\text{li}}{\text{floating}} \Rightarrow \text{b\AA}^\wedge \text{\AA}^\wedge \text{li}$

$\frac{\text{bb\AA\AA}}{\text{smelly}} + \frac{\text{li}}{\text{smelly}} \Rightarrow \text{bb\AA}^\wedge \text{\AA}^\wedge \text{li}$

$\frac{\text{coo}}{\text{copra}} + \frac{\text{li}}{\text{copra}} \Rightarrow \text{co}^\wedge \text{o}^\wedge \text{li}$

$\frac{\text{c\AA\AA}}{\text{people}} + \frac{\text{li}}{\text{people}} \Rightarrow \text{c\AA}^\wedge \text{\AA}^\wedge \text{li}$

PR 35 $\begin{bmatrix} \text{i} \\ \text{o} \end{bmatrix} \Rightarrow \text{u} / \begin{bmatrix} \text{C} \text{ __ } \text{xo} \\ \text{ux} \text{ __ } \end{bmatrix}$

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 \Rightarrow fisexi xo \Rightarrow fisexu xo \Rightarrow fisexu xu
to burn PR26

lawulu + xo \Rightarrow lawulu xu
to have as
child

lli + xo \Rightarrow lluxo \Rightarrow lluxu
to kill

ffêrêxu + xomami \Rightarrow ffêrêxu xumami
to bind

dorofi + xomami \Rightarrow dorofu xomami \Rightarrow dorofu xumami
to catch

xasi + xomiyi \Rightarrow xasu xomiyi \Rightarrow xasu xumiyi
to carry

PR 36 $V_1 \Rightarrow V_1^\circ / _ _ xo\#$

where $V_1 \neq u, ê$

All single vowels, with the exception of u and ê (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 ê may be ascribed to their inherent high quality. No lengthening is observable before nonfinal xo.

(E 71) tape + xo \Rightarrow tape xo \Rightarrow tape[°] xo
to need you PR26

ffaxo + xo \Rightarrow ffaxo[°]xo
to pity

cugaxo \Rightarrow cuga[°] xo
noisy

buraxo \Rightarrow bura[°] xo
smoke

but: weri + xo \Rightarrow weru xo \Rightarrow weru xu \Rightarrow *weru* xu
to see

xa + ddélé + xo \Rightarrow xaddélé xo \Rightarrow *xaddélé* xo
tr shine

limese + xomami \Rightarrow limese xomami \Rightarrow *limese* xomami
to kill us(excl)
to death

(Cf. limese + xo \Rightarrow limese* xo)

PR 37 $l \Rightarrow n / nV_$

(E 72) sukuunu + li \Rightarrow sukuunu li \Rightarrow sukuunu ni
school PR26

moniyama + li \Rightarrow moniyana ni
devil

pinsini + li \Rightarrow pinsini ni
gasoline

kaapini + li \Rightarrow kaapini ni
captain

PR 38 $\begin{bmatrix} 1 \\ 11 \end{bmatrix} \Rightarrow \begin{bmatrix} 1^{\leftarrow} \\ 1^{\leftarrow} 1^{\leftarrow} \end{bmatrix} / \begin{bmatrix} Vz \\ \{a\} \\ o \\ \# \end{bmatrix} \text{--- (C)} \begin{bmatrix} Z \\ Vz \end{bmatrix}$

where $Vz = i, e, \text{á}, u, \text{é}$ ($\widetilde{Vz} = o, \text{ó}, a$)

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 dichotomized 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 ⇒ bel'a'a' = = bel'a'a'
 TA (immed. fut.) shoes PR32

meldowa ⇒ mel'dowa
 west

waa + li ⇒ waa li ⇒ wa'a'a' li ⇒ wa'a'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 $m \Rightarrow \underset{h}{m} / \left\{ \begin{array}{c} \text{--- } u\# \\ V_j \text{ --- } \left\{ \begin{array}{c} u \\ o \\ \delta \end{array} \right\} \\ \text{--- } V \underset{h}{m} \end{array} \right\}$ where $V_j = a, o, (\delta), u, \acute{e}$

PR 39 states that m changes to velarized h 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. hukuu [m^wuku] "to tremble," husu [m^wus] "to bump," hudara [m^wudar] "to spread"). The only example of [m] found is mulu "a kind of insect" in which the first vowel has fronted quality (i.e. [m^hl:l], [m^hlul] ". . . of").

(E 74) mu# ⇒ hu#
 your

sumu \Rightarrow sufu
water well

wumu \Rightarrow wufu
to cook underground

lumu \Rightarrow luhu
moss

damumuu \Rightarrow dahuhuu
wild

lamo \Rightarrow laho
lagoon, mosquito

kamudiidii \Rightarrow kahudiidi
beautiful

kòòkomo \Rightarrow kòòkòmo
playing

cèmblo \Rightarrow cèmblo
pig pen

lema- + mu \Rightarrow lema mu \Rightarrow lemoh \Rightarrow lehoh
drinking ob. PR28

tama- + mu \Rightarrow tama mu \Rightarrow tamoh \Rightarrow tahoh
father

$$\text{PR 40 } \left[\begin{array}{c} \left[\begin{array}{c} V_q \\ \tilde{V}_q \end{array} \right]_1 \\ V \end{array} \right]_2 \Rightarrow \left[\begin{array}{c} \left[\begin{array}{c} [-\text{voiced}] \\ \emptyset \end{array} \right]_1 \\ \emptyset \end{array} \right]_2 \quad / \quad \left[\begin{array}{c} Z_x _ \# \\ Z_{\tilde{x}} _ \# \end{array} \right]_2$$

where $V_q = \left[\begin{array}{c} +\text{vocalic} \\ +\text{back} \end{array} \right]$ i.e. a, ò, o, u

and $\tilde{V}_q =$ any V other than V_q

and $V =$ any vowel

and Z_x and $Z_{\tilde{x}}$ each contain at least a syllable

and $\tilde{x} =$ 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 **Zx̃**). Thus, for example, xo "you (Pm)" does not undergo devoicing while xo "you (Os)" does.

(E 75) a. devoicing of back vowels

kélòxo ⇒ kélò·xo ⇒ kélò·xo
hungry PR36

mègaaxu ⇒ mègaaxU
clothes

bulaxa ⇒ bulaxA
taro

xa + yale + xo ⇒ xayale xo ⇒ xaya<l<e·xo
tr to fly you PR26 PR32
PR36
⇒ xaya<l<e·x0 PR38

b. dropping of vowels

ffaxe ⇒ ffa<xe ⇒ ffa<x
to look for PR32

yixi ⇒ yix
fish

tèxé ⇒ tèx
yam

ccaa + li ⇒ ccaa li ⇒ cca'a<l<i ⇒ cca'a<l<
blood

xamare + la ⇒ xamare la ⇒ xama're la ⇒ xama<rel
sweetheart his

yase + yire ⇒ yaseere ⇒ ya< seere ⇒ ya<seer
liver their PR30

lewa + mu ⇒ lewo mu ⇒ lewo mu ⇒ lewoh
tongue your PR28 PR39

moniyana + li \Rightarrow moniyana<ni \Rightarrow moniyana<n
 devil PR32
 PR37

ccaa \Rightarrow cca ; waa \Rightarrow wa
 blood canoe

PR 41 CVC(v) \Rightarrow 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 BR's 17 & 18). Thus, first of
 all, stems of the form CVCC or CCVC as well as CV or CCV are excluded.

(E 76) xilLi \Rightarrow xilL \Rightarrow *xiilL; loyYo \Rightarrow loyY \Rightarrow *looyY
 skin PR40 perfume

xaddu \Rightarrow xadd \Rightarrow *xaadd
 finger

ffisi \Rightarrow ffis \Rightarrow *ffiis
 lightning

daa \Rightarrow da \Rightarrow *daa
 intestine

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

(E 77) cox \Rightarrow *coox ; wol \Rightarrow *wool
 just also
 (Int) (Mv)

lapa \Rightarrow lap \Rightarrow *laap ; doxo \Rightarrow dox0 \Rightarrow *doox0
 big PR49 hither
 (V) (Dr)

gali \Rightarrow gal \Rightarrow *gaal
 (Vpr)to

yafa \Rightarrow yaf \Rightarrow *yaaf (Cf. yafa \Rightarrow yaf \Rightarrow yaaf)
 to swim swimming
 (V) (N)

pixi \Rightarrow pix \Rightarrow *piix (Cf. pixi \Rightarrow pix \Rightarrow 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) $\left[\begin{array}{c} \underline{\text{se}} + \underline{\text{male}} \\ 1 \quad \text{animate} \\ \text{(Nucl)} \end{array} \right]_{Nm} \Rightarrow \text{se male} \Rightarrow \text{se ma}^{\text{1}}\text{l}^{\text{1}} \Rightarrow * \text{se ma}^{\text{a}}\text{l}^{\text{1}}$

$\left[\begin{array}{c} \underline{\text{fase}} \# \underline{\text{pallege}} \\ \text{stone} \quad \text{big} \end{array} \right]_{Nm} \Rightarrow \text{fa}^{\text{a}}\text{se} \# \text{pa}^{\text{1}}\text{l}^{\text{1}}\text{ege} \Rightarrow \text{fa}^{\text{a}}\text{s} \#$

$\text{pa}^{\text{1}}\text{l}^{\text{1}}\text{eg} \Rightarrow * \text{fa}^{\text{a}}\text{a}^{\text{a}}\text{s} \# \text{pa}^{\text{1}}\text{l}^{\text{1}}\text{eg}$

(Cf. $\text{fase} \Rightarrow \text{fa}^{\text{a}}\text{se} \Rightarrow \text{fa}^{\text{a}}\text{s} \Rightarrow \text{fa}^{\text{a}}\text{a}^{\text{a}}\text{s}$)

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

(E 79) $\underline{\text{mago}} \Rightarrow \text{mag} \Rightarrow \text{maag}$; $\underline{\text{Cuxu}} \Rightarrow \text{cuxU} \Rightarrow \text{cuuxU}$
forehead Truk

$\underline{\text{xapi}} \Rightarrow \text{xa}^{\text{a}}\text{pi} \Rightarrow \text{xa}^{\text{a}}\text{p} \Rightarrow \text{xa}^{\text{a}}\text{a}^{\text{a}}\text{p}$
hip

$\underline{\text{rebe}} \Rightarrow \text{reb} \Rightarrow \text{reeb}$
beard

$\underline{\text{liba}} \Rightarrow \text{lib} \Rightarrow \text{liib}$
hole

$\underline{\text{yima}} \Rightarrow \text{yim} \Rightarrow \text{yiiṃ}$
house

PR 42 $C \Rightarrow \emptyset / C _ \#$

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) $\underline{\text{diddi}} \Rightarrow \text{didd} \Rightarrow \text{did}$
sewing PR40

$\underline{\text{xillLi}} \Rightarrow \text{xillL} \Rightarrow \text{xil}$
skin

páwWu ⇒ páwW ⇒ páw
arm

capPi ⇒ ca<pPi ⇒ ca<pP ⇒ ca<p
ancestor PR32

loyYo ⇒ loyY ⇒ loy
perfume

bullá ⇒ 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 ==⇒ ∅

where Cc stands for a capital letter consonant

(E 81) páwWu + mami ⇒ páwWu ma<m ⇒ páwuma<m
arm

capPi + mu ⇒ capPi m ⇒ ca<pih
ancestor

PR 44 # ==⇒ $\left\{ \begin{array}{l} \emptyset \quad / \quad \left\{ \begin{array}{l} \{P_m\} \text{--- TA} \\ \{TA\} \text{---} \\ N \text{---(Adj)---D}_m \\ \text{---Num} \end{array} \right. \\ // \quad \text{elsewhere} \end{array} \right.$

This rule states that word-boundary symbol # is replaced by the phonological juncture // (characterized 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 #yila< #ye #sa #lox0 #cox
⇒ yaramat we // yila< //ye sa //lox0//cox

$$\text{PR 45} \quad \left[\begin{array}{c} w \\ y \end{array} \right] \Rightarrow \emptyset / \left[\begin{array}{c} \left\{ \begin{array}{c} u _ y \\ (u _ C) \\ _ u \end{array} \right\} \\ \left\{ \begin{array}{c} (ZC) _ (C) \\ V_1 _ V_1 \\ V _ [_] // \\ \quad \quad Os \end{array} \right\} \\ \left\{ \begin{array}{c} Vh _ [_] // \\ \quad \quad \sim At \\ _ [i] \\ _ [e] \end{array} \right\} \end{array} \right]$$

where Z = zero, a C, or a V and ZC ≠ uw

and Vh = i, u, e, é

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) $\frac{\text{ruwé}}{2} \# \frac{\text{yexe}}{10 \text{ PR40}} \Rightarrow \text{ruw} \# \text{yex} \Rightarrow \text{ruw yex} \Rightarrow \text{ru yex}$

(OP) $\frac{\text{ruwé}}{1,000} \# \frac{\text{garase}}{1,000} \Rightarrow \text{ruw} \# \text{gara}^<s \Rightarrow \text{ru(w) gara}^<s$

$\frac{\text{wucu}}{\text{banana}} \Rightarrow \text{wuc} \Rightarrow \text{wuuc} \Rightarrow (\text{w})\text{uuc}$

Cf. $\frac{\text{luwa}}{\text{surprised}} \Rightarrow \text{luw} \Rightarrow *lu$
(V)

b. dropping of y

(OB) $\frac{\text{lima}}{5} \# \frac{\text{yexe}}{10} \Rightarrow \text{lim} \# \text{yex} \Rightarrow \text{lim yex} \Rightarrow \text{limex}$

$\frac{\text{faay}}{4} + \frac{\text{wo}}{\text{Nucl}} \Rightarrow \text{faay wo} \Rightarrow \text{faay w} \Rightarrow \text{faaw}$
(general ob.)

loyYo + li \Rightarrow loyYo li \Rightarrow loyYo^l \Rightarrow loy^cl
 perfume of

\Rightarrow loo^l

se # yexe \Rightarrow se yex \Rightarrow seex
 l 10

senseye + li \Rightarrow senseyel \Rightarrow senseel
 teacher

teye + doxo \Rightarrow teye doxo \Rightarrow teye dox⁰
 to gather hither

\Rightarrow teedox⁰

(OP) xusu + ya \Rightarrow xusu ya \Rightarrow xusuy \Rightarrow xusu(y)
 to bite it

dabe + ya \Rightarrow dabe ya \Rightarrow dabey \Rightarrow dabe(y)
 to follow

faxo + ya \Rightarrow faxo ya \Rightarrow faxoy \Rightarrow faxo(y)
 to miss

senseye \Rightarrow sensey \Rightarrow sense(y)
 teacher

fuluya \Rightarrow fuluy \Rightarrow fulu(y)
 island

péyè \Rightarrow péy \Rightarrow pé(y)
 to be empty

yiiy \Rightarrow (y)ii(y)
 he(Pro)

ye \Rightarrow (y)e
 he(Em)

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, é, u).

PR46 u \Rightarrow i / — C $\begin{Bmatrix} i \\ e \end{Bmatrix}$ x

(E 84) $\frac{\text{ruw}\acute{\text{e}}}{2} \# \frac{\text{yexe}}{10} \Rightarrow \text{ruw} \# \text{yex} \Rightarrow \text{ruw yex} \Rightarrow \text{ru yex} \Rightarrow \text{riyex}$

$\frac{\text{sulu}}{\#} \# \frac{\text{yexe}}{\#} \Rightarrow \text{sulu} \# \text{yixe} \Rightarrow \text{sul yix} \Rightarrow \text{sulix} \Rightarrow \text{silix}$

PR 47 $\left\{ \begin{array}{c} i \\ e \\ o \\ \acute{e} \end{array} \right\} \Rightarrow u / \quad // \quad \text{B} _ \text{C} \left\{ \begin{array}{c} i \\ u \end{array} \right\}$

$\left[\begin{array}{c} +\text{ant} \\ +\text{high} \\ +\text{back} \end{array} \right] \quad \left[\begin{array}{c} +\text{voc} \\ +\text{high} \end{array} \right]$

(E 85) $\frac{\text{miri}}{\text{after}} + \frac{\text{li}}{\text{after}} \Rightarrow \text{miri li} \Rightarrow \text{miril} \Rightarrow \text{muril}$

$\frac{\text{becikkara}}{\text{fever, hot}} \Rightarrow \text{becikkar} \Rightarrow \text{bucikkar}$

$\frac{\text{weri}}{\text{see}} + \frac{\text{ya}}{\text{it}} \Rightarrow \text{weri ya} \Rightarrow \text{weriy} \Rightarrow \text{weri(y)} \Rightarrow \text{wuri(y)}$

$\frac{\text{xumocu}}{\text{grab}} + \frac{\text{ya}}{\#} \Rightarrow \text{xumocu ya} \Rightarrow \text{xuhocuy} \Rightarrow \text{xuhocu(y)}$

$\Rightarrow \text{xuhucu(y)}$

PR 48 $V \Rightarrow \left[\begin{array}{c} \emptyset \\ \acute{i} \end{array} \right]_2 / \left[\begin{array}{c} V \\ V_1 \end{array} \left\{ \begin{array}{c} N \\ L \end{array} \right\} \right]_1 \text{C} \left[\begin{array}{c} V \\ V_2 \end{array} \right]_1 \left[\begin{array}{c} \\ \\ \end{array} \right]_2$

where $N = \underline{m}, \underline{n}, \underline{m}, \underline{g}$; $L = \underline{l}$

\acute{i} = high central unrounded glide

$V \neq V_1 \left\{ \begin{array}{c} \neq \\ = \end{array} \right\} V_2$

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 neighboring vowels are dissimilar.

(E 86) xa + mobu + ya \Rightarrow xa^hmobu(y) \Rightarrow xambu(y)
tr to duck him

yagasi + ya \Rightarrow yagasi(y) \Rightarrow yagsi(y)
touch it

cagaxe + li \Rightarrow cagaxe li \Rightarrow caga<xel \Rightarrow cagxel
hanging of

xalaxa + ya + diye \Rightarrow xalaxa^hdi(y) \Rightarrow xalaxadi(y)
to suspend it down

xarêta + li \Rightarrow xar^hta<l
end of

xapedi + ya \Rightarrow xap^hdi(y)
to wash with
copra oil

wuxedi + ya \Rightarrow wux^hdi(y)
to turn over

dipali + ya \Rightarrow dip^hli(y)
to like

xa#be#le \Rightarrow xa be le \Rightarrow xabl<e
we will
(excl)

xabôle + ya \Rightarrow xabôle ya \Rightarrow xabôle(y) \Rightarrow 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) [male # lapa] \Rightarrow ma<l # lap \Rightarrow ma<lalap
man big Nm
"old man"

yaramata # laa \Rightarrow yaramat # la \Rightarrow yaramatala
 person that

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

(E 88) xa + pisi + ya \Rightarrow yap^hsi(y)
 tr to launch it

xa + ppisi + ya \Rightarrow xapp^hsi(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 \Rightarrow xo sa // la // ggat // ye
 you ta become hurry and

"You were in such a hurry!"

\Rightarrow xo sal^h//ggat e

xa # si # ciil # kakkãata # faa \Rightarrow xas //ciil//kakkãatafa
 we we still doing-what which
 (Pro-incl)
 "What are we still doing?"

PR 49 mê \Rightarrow m / __ (if // \Rightarrow \emptyset) [i]

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

(E 90) mê # yiiyaa \Rightarrow mê // iiya \Rightarrow m(// \Rightarrow \emptyset)iiya
 where

mê # yiiyage \Rightarrow mê // iiya'g \Rightarrow miiya'g
 there

mê # yixaa \Rightarrow mixa
 here

mé # yiree + la \Rightarrow mireel
 at him

mé # yipélé \Rightarrow mipél
 menstruation-house

PR 50 (V₁) l \Rightarrow T₁ / V₁ ___ (if // \Rightarrow \emptyset) T₁

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 \Rightarrow (y)i be //ya<a<l<
 I will have knife the

//sa<a<r we \Rightarrow (y)i be //ya<s(// \Rightarrow \emptyset) sa<a<r we

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

\Rightarrow (y)e sa //wer //(y)ire //mé //wób[^]l //ta<(y)iit

\Rightarrow (y)e sa //wer //(y)ire //mé //wób[^]t ta<(y)iit

"He saw trees on the mountain."

male + li#Cuxu \Rightarrow ma<l //cuuxU \Rightarrow ma<c cuuxU
 bird of Truk

legace + li # repsece \Rightarrow laga<cer repsec
 beside foreigner

legace + li # tade \Rightarrow laga<cet ta<a<d
 sea

la + li # cale \Rightarrow la<c ca<l<
 in water

faa + li # se + wo \Rightarrow fa<s seew
 under l Nucl(gen.)
 "once"

medaxe + li # daa \Rightarrow meda'xed da
 pain intestine

mata + li # naanaa \Rightarrow mata'n naana
 eye mammy

but: medaxe + li # $\left\{ \begin{array}{l} \underline{xapi} \\ \text{hips} \\ \\ \underline{p\acute{a}w\acute{w}u} \\ \text{arm} \\ \\ \underline{kku} + \underline{yi} \\ \text{finger-nail my} \end{array} \right. \Rightarrow *meda'xe \left\{ \begin{array}{l} x \quad xa'a'p \\ \\ p \quad p\acute{a}w \\ \\ k \quad kkuy \end{array} \right.$

PR 51 $u(u) \Rightarrow [-\text{back}] / \left\{ \begin{array}{l} d \\ s \\ l \\ m \end{array} \right\} \sim \tilde{B}$

The high back vowel becomes fronted ([U]) after the given consonants if not followed by velarized consonants, b, m, w.

(E 92) dudu \Rightarrow dud \Rightarrow duud \Rightarrow dUud
 breast

suru \Rightarrow sur \Rightarrow suur \Rightarrow sUur
 house-pillar

luu \Rightarrow lu \Rightarrow lU
 coconut

mulu \Rightarrow mul \Rightarrow muul \Rightarrow mUul
 a kind of insect

but: lumu \Rightarrow lumu \Rightarrow lum \Rightarrow lumh \Rightarrow *lUUmh
 moss

sube \Rightarrow sub \Rightarrow *sUub
 to be born(V)

yicuu + li \Rightarrow (y)icuul \Rightarrow *(y)icUul
 on of

xule \Rightarrow xul \Rightarrow xuul \Rightarrow *xUul
 love song

yulu \Rightarrow yul \Rightarrow yuul \Rightarrow *yUul
 coconut skin

bulu ⇒ bul ⇒ buul ⇒ *buul
chewing gum

PR 52 $\left\{ \begin{array}{c} b \\ d \end{array} \right\} \Rightarrow [-\text{voiced}] / _ \left\{ \begin{array}{c} // \\ [-\text{voiced}] \end{array} \right\}$

 $\left(\begin{array}{c} -\text{vocalic} \\ +\text{anterior} \\ +\text{continuent} \end{array} \right)$

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

(E 93) cobo ⇒ cob ⇒ coob ⇒ coob_^ [cooθw]
 mat

mada ⇒ mad ⇒ mad_^ [maθ]
 cooked(V)

PR 53 $\left\{ \begin{array}{c} f \\ x \end{array} \right\} \Rightarrow [+voiced] / [+voiced] _ [+voiced]$

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.

(E 94) kofa- + li ⇒ kofa<l< ⇒ kofa<l< [kova<l<]
 result of

magxaa ⇒ magx_va [marga]
 mango

xa + ffaxo + ya ⇒ xaffaxo_v(y) [xaf:ago(y)]
tr to pity it
"to be in trouble"

$$\text{PR 54} \quad \begin{bmatrix} S_1 \\ \left\{ \begin{array}{c} \underline{l} \\ \underline{n} \\ \underline{g} \end{array} \right\} \\ \left\{ \begin{array}{c} \underline{m} \\ \underline{h} \end{array} \right\} \end{bmatrix} \Rightarrow [-\text{release}] / \text{---} \begin{bmatrix} S_1 \\ \left\{ \begin{array}{c} \underline{c} \\ // \end{array} \right\} \\ \left\{ \begin{array}{c} \underline{p, b, m, h} \\ (//) \end{array} \right\} \end{bmatrix}$$

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

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

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

$$\underline{kakkace} \Rightarrow k^+ak^-k^+ac^+ \\ \text{to throw}$$

$$\underline{xa} + \underline{ppisi} + \underline{ya} \Rightarrow xapp^{\ddagger}si(y) \Rightarrow x^+ap^-p^{\ddagger}s^+i(y) \\ \text{tr to float it} \\ \text{up}$$

$$\underline{pileta} + \underline{ya} \Rightarrow pilta^< \Rightarrow pil^-t^+a^< \\ \text{to sut it}$$

$$\underline{kantini} \Rightarrow kantin \Rightarrow k^+an^-t^+in^- \\ \text{store}$$

$$\underline{figfigi} \Rightarrow f^+ig^-f^+ig^- \\ \text{to wist}$$

$$\underline{yima} \# \underline{m\acute{e}} \# \underline{pese} \Rightarrow (y)iim //m\acute{e} //pees \Rightarrow \begin{cases} (y)iim^- m^+\acute{e} \\ (y)iim^+ //m^+\acute{e} \end{cases} \\ p^+ees^+$$

$$\underline{xatama} \# \underline{k\acute{a}a} \Rightarrow xatam ka \Rightarrow x^+at^+am^+k^+a \\ \text{door these}$$

In spite of the alternation between + & -[release], the inherent distinctive features of each phoneme are not thereby affected. For

example, m in yima maintains [+back] regardless of [+release].

PR 55 $\left\{ \begin{array}{c} p \\ t \\ c \\ k \end{array} \right\} \Rightarrow$ slightly aspirated / __//

See PR 12 for inherent unaspiration of consonants.

(E 96) payepe \Rightarrow pa<yep \Rightarrow pa<yep^h
pipe

kakke \Rightarrow ka<k \Rightarrow ka<k^h
to carry

mata \Rightarrow maat \Rightarrow maat^h
eye

kakkace \Rightarrow kakka<c \Rightarrow kakka<c^h
to throw

PR 56 $\left[\begin{array}{c} C_i \\ V_1 \end{array} \right] \Rightarrow$ [+tense] / () $\left[\begin{array}{c} C_1 \\ V_1 \end{array} \right] ()$

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 \Rightarrow tap \Rightarrow taap \Rightarrow taap^h \Rightarrow taap^{hh}
cheek

kakke + li \Rightarrow kakkeli \Rightarrow ka<kkel^h \Rightarrow ka<kkel^{hh}

PR 57 $x \Rightarrow$ $\left\{ \begin{array}{l} \text{fronted / } _ \left\{ \begin{array}{c} C \\ // \\ i, e, \text{ \textasciitilde}, \acute{e}, u \end{array} \right\} \\ \text{slightly voiced / } _ // _ \acute{e} \\ x^{\text{h}} / _ _ i, e, \text{ \textasciitilde} \end{array} \right.$

This rule characterizes 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 \Rightarrow xil \Rightarrow xⁱil
skin

xáata \Rightarrow xáat \Rightarrow xⁱáat
how come?

téxtaa \Rightarrow téxta \Rightarrow téx<ta
doctor

cuxu \Rightarrow cuuxU \Rightarrow cuux<U
basket

ffaxe \Rightarrow ffax \Rightarrow ffax<
to look for

xérxéru \Rightarrow xérxér \Rightarrow g<érg<ér
to scratch

PR 58 $\left[\begin{array}{c} \{ \text{ayé} \} \\ \text{áwu} \\ \text{áw} \\ \text{á(y)i} \end{array} \right] \Rightarrow \left[\begin{array}{c} [\text{y:}] \\ [\text{y}] \\ \text{áá} \end{array} \right]$

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

(E 99) cayé + li \Rightarrow cayél \Rightarrow c^y:l ; páwú \Rightarrow páw^w \Rightarrow páw \Rightarrow [p^y]
leaf arm

páwú + mami \Rightarrow páw^wuma<m \Rightarrow páwuma<m \Rightarrow [p^y:ma<m]

máyi + li \Rightarrow máyil \Rightarrow máál
breadfruit

PR 59 $\left[\begin{array}{c} V_1V_1 \\ V \end{array} \right] \Rightarrow \left[\begin{array}{c} \acute{V}_1V_1 \\ \acute{V} / _CCV \{ \begin{array}{c} C \\ \# \end{array} \} \end{array} \right]$

In general, stress (which is non-phonemic) is not clearly recognizable,

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.

(E100) yegaage \Rightarrow yega'a'g \Rightarrow yega'a'g
work

re # kákkáata # faa \Rightarrow re //kákkáat(a)fa
they do what which

"What are they doing?"

bullá + li \Rightarrow bullel \Rightarrow búllel
heart of

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

(E101) babiyoro # faa \Rightarrow babiyor fá
book which
(Dm)

yiwee#gè \Rightarrow (y)iwé // gè
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

<u>l</u> ^{20s} <u>stemV</u>	<u>yeyi</u> me	<u>xo</u> you	<u>ya</u> him	<u>xica</u> us(incl)	<u>xomami</u> us(excl)	<u>xomiyi</u> you(pl)	<u>yVre</u> them
<u>i</u>	iyey	uxU	i(y)	ixic	uxuma<m	uxumi(y)	iir
<u>e</u>	eyey	e•x0	e(y)	exic	exoma<m	exomi(y)	eer
<u>a</u>	a<yey	a•x0	a<	a<xic	axoma<m	axomi(y)	aar
<u>o</u>	oyey	o•x0	o(y)	oxic	oxoma<m	oxomi(y)	oor
<u>u</u>	uyey	uxU	u(y)	uxic	uxuma<m	uxumi(y)	uur
<u>é</u>	éyey	éx0	é(y)	éxic	éxoma<m	éxomi(y)	éér

TABLE V

STEM VOWEL ALTERNATION BEFORE AT

stem V	At <u>yi</u> [y]	<u>mu</u> [mʷ]	<u>la</u> [lʷ]	<u>li</u> [l<]	<u>ca</u> [c]	<u>mami</u> [ma<m]	<u>miyi</u> [mi(y)]	<u>yire</u> [r]
	my	your	his	of	our-in	our-ex	your-pl	their (+yi)
<u>i</u>	i	i	i	i	i	(i)	(i)	ii
<u>ii</u>	ii	ii	ii	ii	ii	ii	ii	ii
<u>e</u>	e	e	e	e	e	(e)	(e)	ee
<u>ee</u>	e^e^	ee	ee	e^e^	ee	ee	e^e^	ee
<u>ə</u>	ə^ə^	əə	əə	ə^ə^	əə	əə	ə^ə^	əə
<u>a</u>	{e}	{o}	a	{e}	a	(a)	(e)	əə
	{é}	{é}		{é}				
	a<	a	a	a<	a	(a)	(a<)	əə
<u>aa</u>	a<a<	aa	aa	a<a<	aa	aa	a<a<	aa
<u>o</u>	o^	o	o	o^	o	(o)	(o^)	oo
<u>oo</u>	o^o^	oo	oo	o^o^	oo	oo	o^o^	oo
<u>u</u>	u	u,é	u,é	u,é	u,é	(u,é)	(u,é)	uu
<u>uu</u>	uu	uu	uu	uu	uu	uu	uu	uu
<u>é</u>	é	é	é	é	é	(é)	(é)	éé
<u>éé</u>	éé	éé	éé	éé	éé	éé	éé	éé

(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 Nus	2 Num	Nucl					
		<u>+wo</u> 10 (gen.)	<u>+yale</u> line	<u>+male</u> animate	<u>+fase</u> round-ob.	<u>+yaye</u> long ob.	<u>+yafe</u> bundle
<u>se</u> 1	seex	seew	seyel	seməl	sefàs	seyáy	seyáf
<u>ruwé</u> 2	riyex	ruwow	ruw ^z yal	ruw ^z məl	ruw ^z fàs	ruw ^z yáy	ruw ^z yáf
<u>sulu</u> 3	silix	suluw	sul ^z yol	sulməl	sulfàs	sul ^z yoy	sul ^z yef
<u>faay</u> 4	faayex	faaw	faayel	faaməl	faafàs	faayáy	faayáf
<u>lima</u> 5	limex	limow	lim ^z əl	limməl	limfàs	lim ^z áy	lim ^z áf
<u>wole</u> 6	wólex	wólow	wol ^z yel	wólməl	wólfàs	wól ^z yáy	wól ^z yáf
<u>fisú</u> 7	fisix	fisuw	fis ^z yol	fisməl	fisfàs	fis ^z yoy	fis ^z yef
<u>wálu</u> 8	wálix	wáluw	wál ^z yol	wálməl	wálfàs	wal ^z yoy	wal ^z yef
<u>diwa</u> 9	diwex	diwow	diw ^z əl	diw ^z məl	diwfàs	diw ^z áy	diw ^z áf

(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

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

(1) #xilli# "skin"

38 | | |
 40 | | |
 42 | | |
 57 xⁱ

[xⁱil]

(2) #xapi# "hips"

32 | | |
 40 | | |
 41 | | |
 55 p^c

[xa:p^h]

(3) #mada# "to be cooked"

40 | | |
 52 d

[maθ]

(4) #fèèru + ya# "to make it"

26 | | |
 40 | | |
 45 (y)

[fə:ru(y)]

(5) #tape +xo# "to need you"

26 | | |
 32 | | |
 36 | | |
 40 | | |

[tape•x0]

(6) #weri + xo# "to see you"

26 | | |
 35 | | |
 40 | | |
 47 | | |
 57 x^c

[wurux^cU]

(7) #dorofi +xomami# "to catch us(excl)"

26 | | | | |
 32 | | | | |
 35 | | | | |
 40 | | | | |
 48 | | | | |
 57 x^c

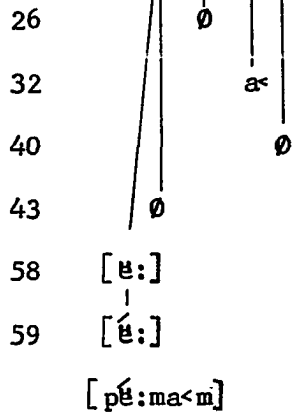
[dorfx^cuma^cm]

(8) #ili + yVre# "to kill them"

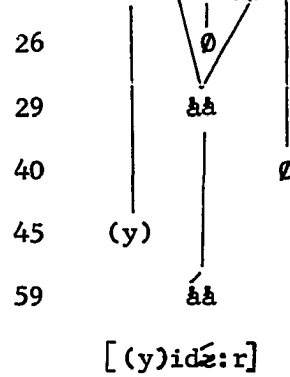
26 | | | | |
 30 | | | | |
 38 | | | | |
 40 | | | | |

[l^c:i:r]

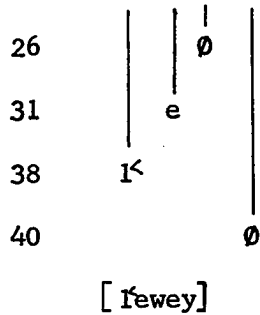
(9) #pawwu + mami# "our(excl)
arms"



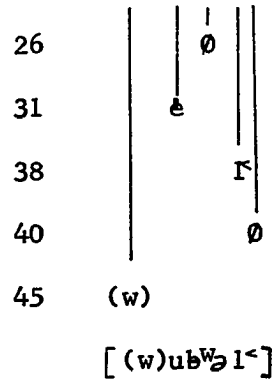
(10) #yida + yire# "their name"



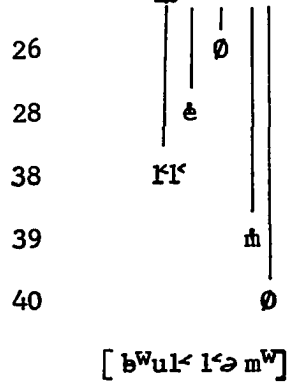
(11) #lewa + yi# "my tongue"



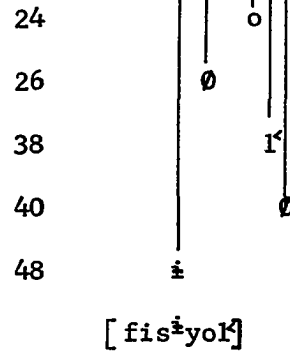
(12) #wuba + li# "chest of"



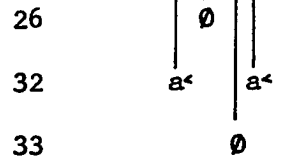
(13) #bulla + mu# "your heart"



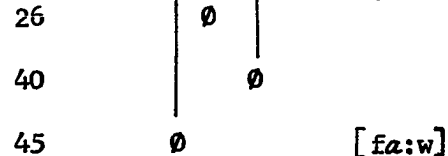
(14) #fisu + yale# "five line
objects"



(15) #lima + yaye# "five long
objects"



(16) #faay + wo# "four (gen.)
objects"



38 i< |
 40 ∅

[i<ima:y]

(17) #ruwe#yexe# "20"

40 ∅ ∅
 44 ∅
 45 ∅ (y)
 46 i
 57 x<

[ri(y)ex<]

(18) #sulu#yexe# "30"

23 i
 38 i<
 40 ∅ ∅
 44 ∅
 45 ∅
 46 i
 57 x<

[sil<ix<]

(19) #se#garase# "1,000"

27 a
 32 a<
 40 ∅
 44 ∅

[sagaras]

(20) #dabetxomiyitdaxe# "to follow you(pl) east"

26 ∅ ∅
 27 o
 32 a<
 40 ∅
 45 ∅
 53 x
 57 x<

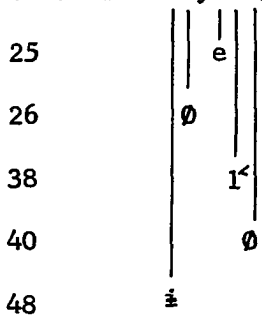
[dab^wogomi:dax<]

(21) #xasityatloxox# "to carry it away"

20 [ii] [aa] ∅
 26 ∅
 32 [a<] [a]
 40 ∅

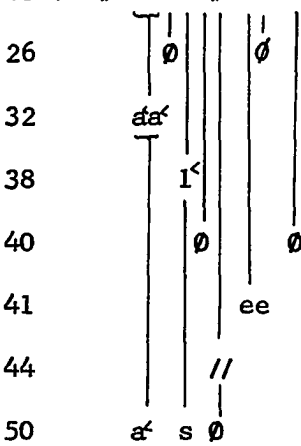
[xasi:lox0]
 [xasa:lox0]

(28) #wóletyale# "six lines"



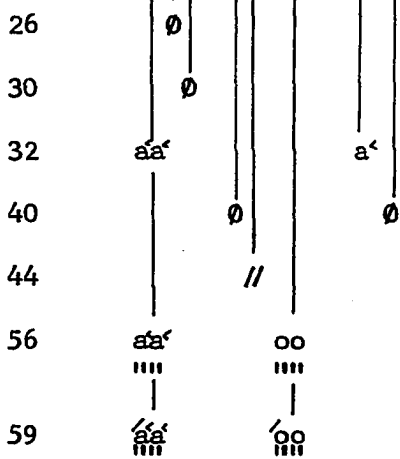
[wólⁱyeF]

(30) #faatli#setwo# "once"



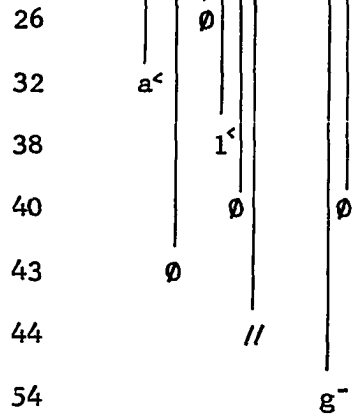
[fas:e:w]

(32) #waatyire#wootobaye# "their scooter"



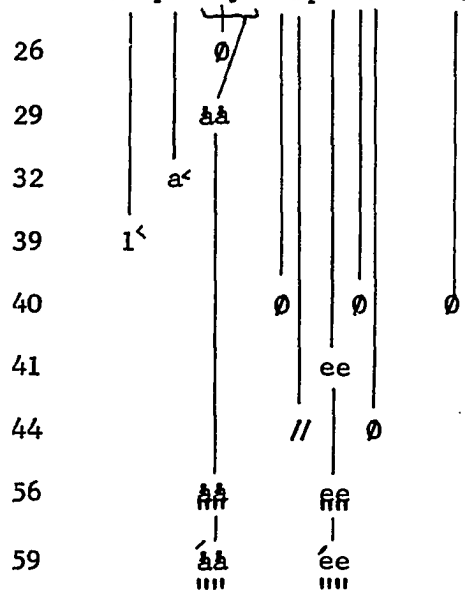
[wá:r//wó:tob^way]

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



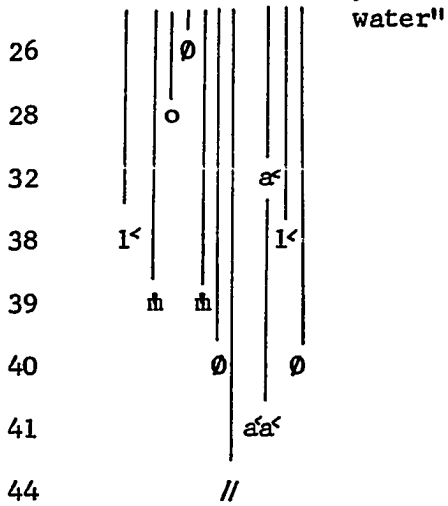
[capil^c//fiyog^g]

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



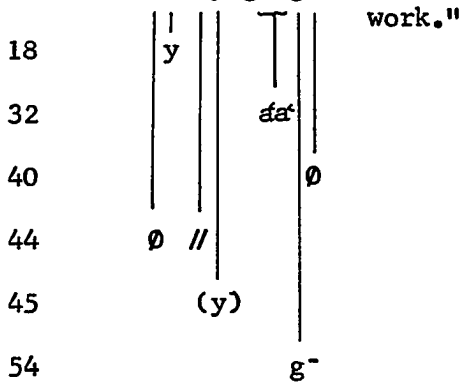
[lepada^r:r//pe^s:s kala]

(33) #lematmu#cale# "your water"



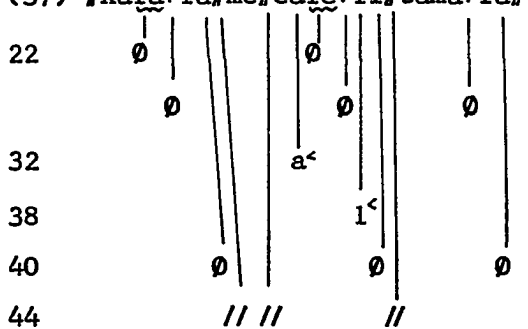
[l[◌]em^{Wom}W//ca:l[◌]]

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



[siya//(y)ega:ɣ⁻]

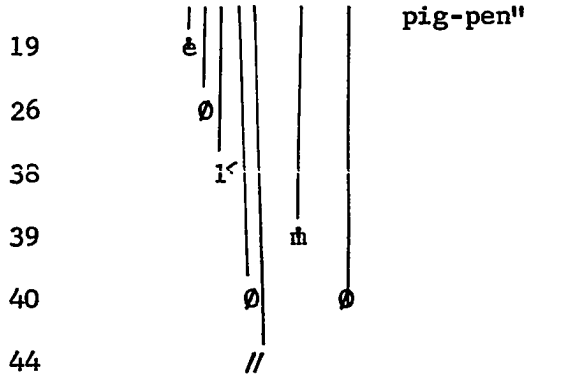
(37) #xala+la#me#cale+li#tamat+la#



[xal//mɔ//cal[◌]//tamɔl]

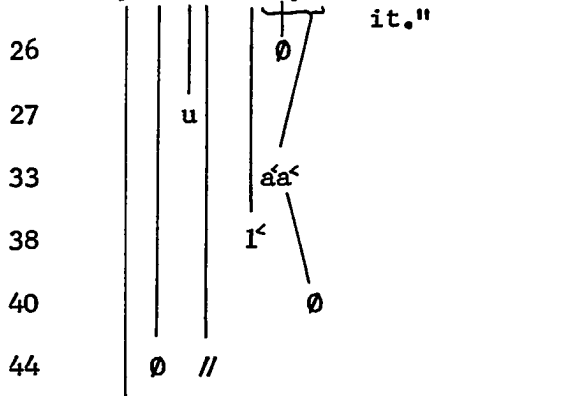
"his food and his father's water"

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



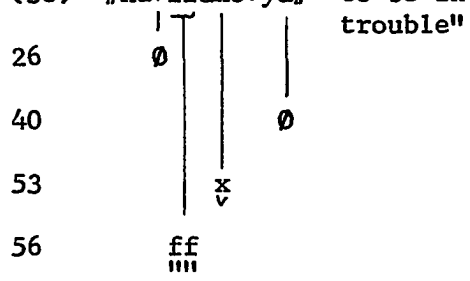
[fə:rəl[◌]//cəm^{Wol}]

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



[(y)itu//xul[◌]a]

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



[xaf_{ff}:agoy]

NOTES TO CHAPTER III

1. Dyen (1965:33 et seq.) seems to be following such a hypothesis in his statement of a partially parallel phenomenon in Trukese.
2. Saumjan (1967:1740) 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 Halle 1968:12-4). In this study, I adopt the following convention, which has been motivated by various phonological behaviors of the syntactic classes presented:

#__ : N, V, Nus, Dm, Mv, Mn, Em, TA, con, Vpr, Prp, fm
 Num

__# : utterance final position

+__ : At, Os, DIR and other suffixes (e.g. +xili "for")

__+ : prefixes (e.g. xat (causativizing marker))
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.

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 formalizable 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

gêê "yes, no" (affirmation to the question)

yââb "yes, no" (negation to the question)

yegêê "oh yes, oh no, of course"

(strong affirmation to the question)

E 1	(a) Xo be loxo? you will go	<u>Gêê.</u>
	"Will you go?"	"Yes."
	(b) Xo towee loxo? not	<u>Gêê.</u>
	"Won't you go?"	"No."

- (c) Xo towee yule tamaaxoo? Yààh, yi be yule.
 smoke cigarette I

"Wouldn't you like to smoke?" "Yes, I will."

- (d) Xo tay dabe-yVre? Yegéé.
 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 fêfêèru-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

<u>singular</u>	<u>plural</u>	
tama-yi	re-tamma-yi	"sir (lit. my father)"
silay-yi	re-silay-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 thither mast- so- we
(pl) line that (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 yiyaa?
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) Yiyaa melee xo ddare yiyage, 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 la 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, the
 ax

"You! Didn't you see my ax?"

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, lâ? "No! So what?"

(4) interjections

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

- (b) Yilaa gè. "See you!"

- (c) Yiwee gè. "I said it's sufficient!"

- (d) Yiwee mo. "That's OK!"

- (e) Yituwaay. "Oh. Nice! (jokingly)"

- (f) Yak "Oh my! What!"

Yak, ye xââtaa xo la dabe-yeyi?
 how- become
 come

"Oh my! How come you followed me?"

(g) Aay "OK, Well! (to draw others' attention)"

Aay, xa si sa loxo, si be kassiya-ya.
 we ask him
 (Pro)

"Well! Let's go and ask him."

(h) A "Oh!"

A, yi towee 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 gê "and, then, but," ye "and so" and lâ "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 lebosò là yi be mele yiyage.
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 yiyaa?
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. $S \longrightarrow S \text{ (con} \hat{\text{S}}$

Lexicon

gê	"and, but"	+con, +coordinate
	"then"	+con, +subordinate
xaree	"or"	+con, +coordinate
ye	"and so"	+con, +coordinate
lâ	"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 ($S \hat{\text{con}} S$).

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 (S's). Thus in E 10, the ambiguity may be accounted for by the difference in features of the connector gê.

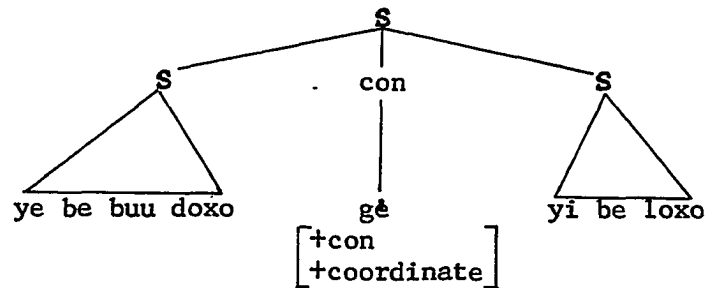
E 10 Ye be buu doxo gè yi be loxo.
 come dr go

(a) "He will come and I will go."

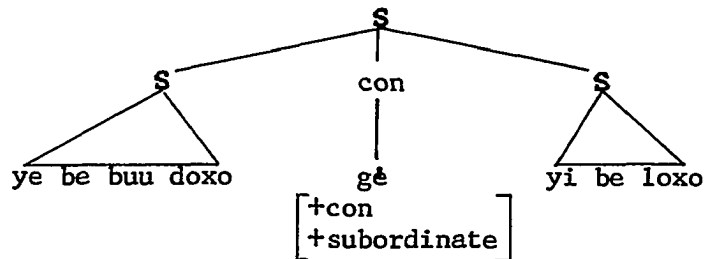
(b) "If he comes, then I will go."

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

(a)



(b)



The structural indicators for a sentence to be recognized 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 S^{con}S indicates that the first S is subordinate to the second.

E 11 (a) [Xaree xeel xo be cuya mè Cuxu]_S [gè]_{con}
 you ta leave

[yiyaa melee xo sa loxo mè yiyage?]_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 [gê]_{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 [gê]_{con} [ye be le mese
 not again ta ta die
 feefele wee]_S
 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 [gê]_{con} [yi saab mooc xola-ya
 long- ta finally arrive-it
 time
 <+time >
 Hawaii]_S

"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 S's 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 [gê]_{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 ho "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 ho and melwee along with yilaa (gê), yiwee (gê) (for these, see 4.3.4) which are all demonstratives are the indicators of subordinate constructions.

E 15 (a) [Yilaa ho ye mommaye]_S [gê]_{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 [gê]_{con} [Yulidiy
 ng see-it

ye sa laxa mē meteraale]_S
 appear from east

"No sooner had Bexaw seen Yap, then 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 [gê]_{con} [[ye ma moro luu
 blow wind fall c-nut

yiiyage]_S [gê]_{con} [ye ma fildaa loxo yima]_S]_S [gê]_{con}
 by it blown-off house

[[xaree ye be te yoor loxo luu]_S [gê]_{con} [[ye be kēlōxo
 not-hungry
 exist

yaramata]_S [gê]_{con} [yoor 1& 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. TR's 3 and 6).

Connector gê 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 [gê]_{con} [gaag yiyee yi sa buu doxo]_S
ta go here ta come

"He went away, but I have come."

(b) [Xuyor yilaa senseye]_S [gê]_{con} [Toomas
fm

yilaa yeliwici-li sukuun]_S
 child

"Guyor is a teacher and Thomas is a student."

(c) [Ye coolopa petêxo-li wudu bogeyi lee]_S [gê]_{con}
 many rainfall rain night this

[ye kkela xalfêge]_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 mè yiyage]_S
 ng exist fm catch-it as food-his there

[gè]_{con} [ye sa mmadaga waa mè luxu-li yiyi
 sound back

yusaxale wee]_S
 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 tarmhale wee memmele lã
 ng long Cl(gen) boy staying that

ye ggace]_S [gè]_{con} [ye sa bii daxe tèt tar-
pm lonely come east some

feefe]_S
 girl

"Not long after his lonely living, some girls
 came east-ward."

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) [Yiy 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 dm
 house

"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) \Leftarrow = [yi be le loxo]_S [ye]_{con} [yi be le loxo
 [sukuun]_{PrepP}]_S

(b) \Leftarrow = [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 sèrè]_S [ye]_{con} [ye sa yifaa saga-la?]_S
 say what state-its

(lit. they and Magadow went to Ulithi and they
accompanied plane)

- (c) [Xa si ciil k&ak&ataa?]_S [l&]_{con} [xadalboo si
we(incl)pm still doing what supposedly
what

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 complementizer (4.9.6) in addition to its role as a subordinate connector. The latter role is illustrated below.

- E 23 (a) [Yi te masérè]_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 k&okomo]_S [bo]_{con} [yelusú kalaa re de
you ng play ghost dm ng
pm

weri-xo]_S
see you

"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)	{ Predication Identification } (PrepP)

Lexicon

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

4.3.2. Main Types of Minimal Sentences

BR's 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.

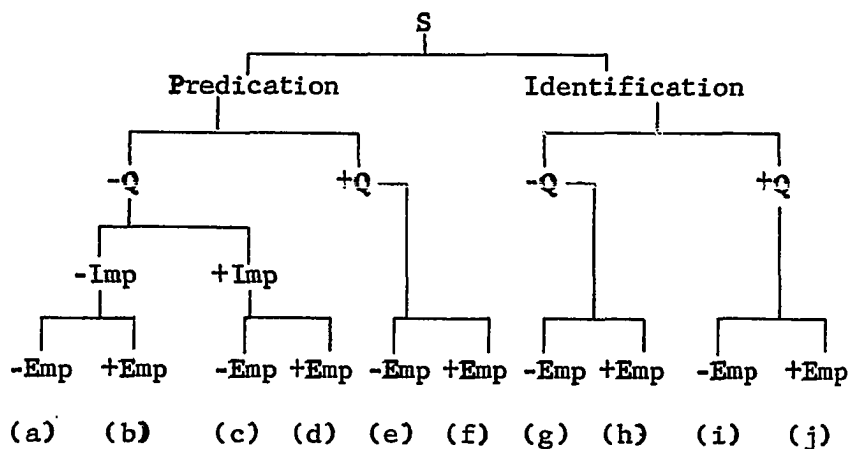


FIGURE 5

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.
 you(Pro) not go
 "You! Don't go!"
- (e) Re sa molo mé yiree-li kóókomo?
pm from at play
 "Have they finished playing?"
- (f) Wucu melee tay yoor?
 not exist
 "Are there bananas any more?"

- (g) Gaag se-male tãxtaa.
I(Pro)

"I am a doctor."

- (h) Te gaag melee tãxtaa.
not

"I am not the one who is a doctor."

- (i) Xeel yiitey?
who

"Who are you?"

- (j) Te yiy 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 generalization 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) summarizes 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 gè "in that case, then, well, by the way"
that(seen) and

Yilaa gè xo sa yulemi-ya tafeye lee,
ta drink-it medicine this

"In that case take this medicine."

Yey. Yilaa gè se-wo yiyee.
one this,here

"Oh! Here is another thing by the way."

- (b) yiwee gè "then, and, but, rather"
that(unseen) and

yiwee cox gè "just then, just for that"

Yiwee gè ye sa loxo.

"Then he went."

Yiwee cox gè ye sa tagi.
cry

"She cried just for that."

- (c) yilaa "then, well, by the way, in that case"

Yilaa ye sa cap*Pi* daxe.
begin dr

"Then he began it."

Yilaa xa be bii daxe gè xa towee sèrè 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 ffèsègu logo bisi-la, ye sa faga
invite dr brother give

xala-la mogoyo.
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 gê (+con) follows these demonstratives. In view of this fact, the sentences in E 25 are interpreted as the derivations of the following processes (see TR's 27 & 28):

$$ye \begin{bmatrix} yilaa \\ yiwee \end{bmatrix} \underset{OP}{gê} S \Rightarrow \begin{bmatrix} yilaa \\ yiwee \end{bmatrix} \underset{OP}{gê} S \Rightarrow \begin{bmatrix} yilaa \\ yiwee \end{bmatrix} S$$

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 gê yi be dabe-xo.

but: *Yi be dabe-xo yilaa.

"Then I will follow you."

(b) Musuwee gê ye mommaye.
formerly good

Ye mommaye musuwee.

"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) [Fadé-li luu yilaa male melee re ma féèru-ya]_S
 plant c-nut fm man fm hb do

[gè]_{con} [{yixiliboo} ye mele faa-li ka se-wo
 {lixidiboo} stay occasionally
 SA

yado l& feefele re ma wol fadé 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] re sa mese]_S
 SA S

"Maybe they died."

(c) [Re sa yitoli-ya lepada-li xuyòò wee]_S [bo]_{con}
 put it between outrigger

[[xadalboo] re be sulu-male]_S
 SA S

"They put it in the outrigger so that they might look like three persons."

(d) Yi te xula-ya l& [[xaree] xo be xamòò mè yimòò-li]_S
ng know that SA 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} [[yegèe]_{SA} yi sa
that reason those mat-my

dabe-ya loxo mo 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 [gè]_{con} [[xaramoo]_{SA} xiic cox gè
ng we just fm
(incl)

si be loxo]_S

"If he is not coming, let us go 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

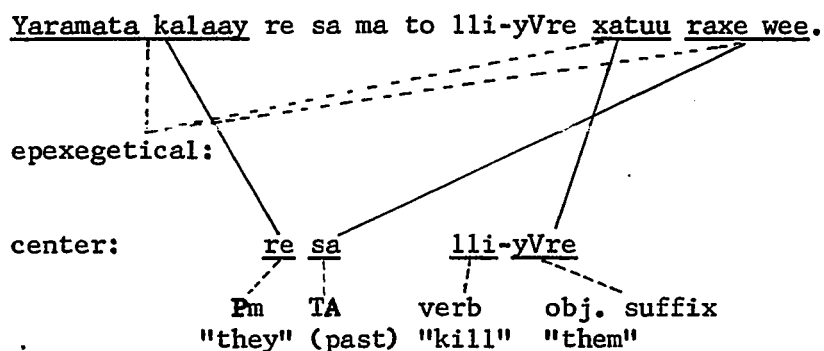
re	"they"	+Pm, -SP, -HR, +Ani, -SG
be	"will"	+TA, +future, -definite, -immediate
be le	"will"	+TA, +future, -definite, +immediate
sa	"past, perfective, stative, future"	+TA, -future -future, +state, [+ __[+state] _v] +future, +definite, -immediate, -delayed, [+Imp...__], [+S gè [...__...] _s] <+sub>
sa le	"will"	+TA, +future, +definite, +immediate [+Imp...__], [+S gè [...__...] _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
tè	"just a moment"	+Mv, [+Imp...__], [+NP [...__...] _s] COM
xa	"usually"	+Mv
wa (Fal)	"again,	+Mv
wol (Mog)	also"	+Mv

sar(Fal) sor(Mog)	"a little"	+Mv
ciil	"still"	+Mv, [- TA _] <↑neg>
far	"rather"	+Mv
mooc	"just, finally"	+Mv
xal	"only"	+Mv
mucal	"wishfully, voluntarily"	+Mv
yixil	"so much"	+Mv
fasul	"normally"	+Mv
yuxul	"early, in the first place"	+Mv
móóóó	"first, for the first time"	+Mv
xamóóó	"before"	+Mv
rool	"altogether"	+Mv

4.4.2. Obligatory Category NP

Ulithian predicational sentences may be said to be "centered" 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 NP's 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 formalizable, 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 symbolized as $\lfloor \lrcorner$ 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.

"The girl followed them."

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 identity 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 yiiir Pm sa tagi, a focussed form like yiiir 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 $\leftarrow =$ yiiir Pm sa tagi

 Yiiir melee re sa tagi $\leftarrow =$ Emp yiiir 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 focussed. Observe a parallelism in the three sets of examples in E 31 where deep structure pronouns are postulated.

transformation.

E 32 (a) Re-musuwee ye coolopa yaa-yire ma mogoyo mē
 ancients pm many Cl eat from

yimōō-ii yixala kaa
 before nowadays

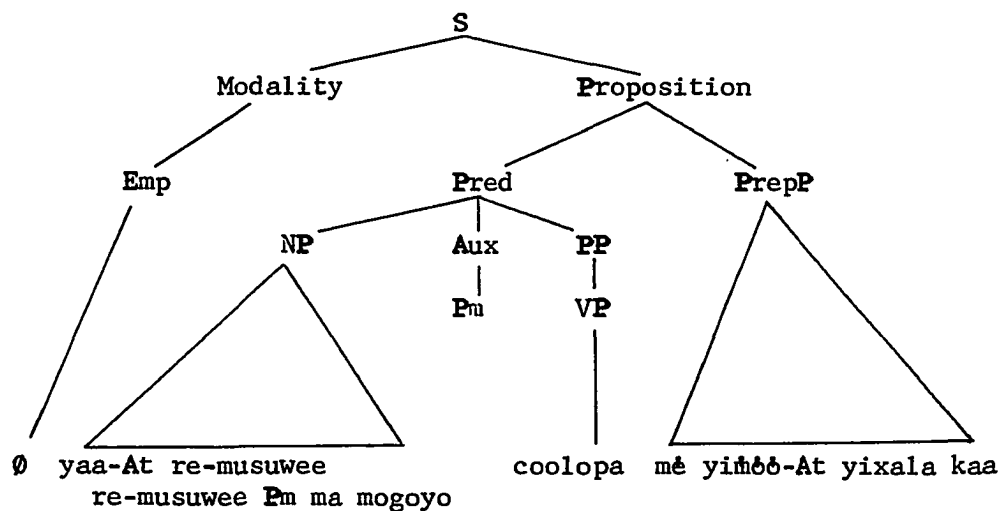
"As for the people of old days, they ate more
 than the people of today."

(b) Cayēlapa-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 \emptyset (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 TR's 11, 13, 17,

21, 37, and PR 14.

E 32 (b) poses a somewhat different question. Cayélapa-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 cayélapa-la is dominated by the node of PrepP along with verbal preposition (Vpr) gali "to" and that a focus transformation preposes cayélapa-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]_{VP} Pred [gali
cayélapa-At yiyi]_{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 TR's 11, 13, 21 & 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 tamolo. (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) realizes 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 realized only in the form

of reduplication of verbs.

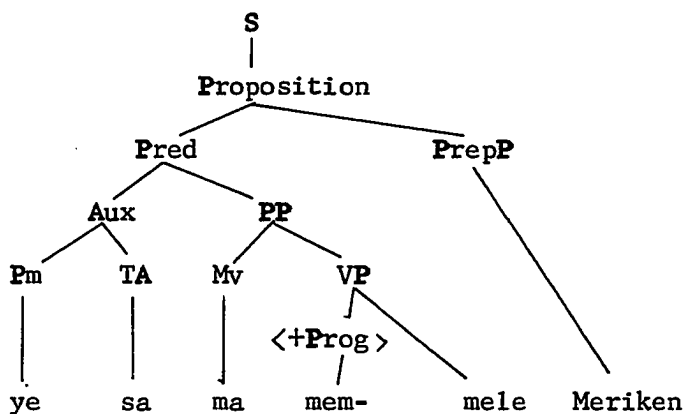
E 38 Yi be le ma mommogoyo.
Prog-eat

"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:

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

	<u>sa(A)</u>	<u>be</u>	<u>be le</u>	<u>sa(B)</u>	<u>sa le</u>	<u>saab</u>	<u>le</u>
future	-	+	+	+	+	+	+
definite	(+)	-	-	+	+	+	+
jussive	(-)	(-)	(-)	-	-	-	+
delayed	(-)	(-)	(-)	-	-	+	(-)
immediate	(-)	-	+	-	+	(-)	(-)

Examples in which be and be le appear follow.

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 gè xa be buu doxo.
 finish then come dr

"When you (pl) are through, come here."

(c) Xo be buu doxo gè xa sa xula-ya melee xa be
 know-it that we(excl)

fèèru-ya.
 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 gè 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 yirèètè gè 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 dog

"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
 tell to me if come dr

towee buu doxo.

"Let me know whether he comes or not."

(4) futurity

E 45 (a) Xeel xo be cuya mē cuxu gē yiyaa melee xo sa loxo
 leave from where fm

mē yiyage.
 there

"When you leave Truk, where will you go from there?"

- (b) Re be buu doxo gé ye sa kapatapata gali-yVre.
 talk to

"When they come, she will talk to them."

- (c) Fêtéété gé yi sa kaya gali-xo kofa-la.
 later tell to you result-its

"I will tell you about it later."

- (d) Si be mogoyo gé si sa la fitaa.
 eat go fishing

"After eating, let's go fishing."

- (e) Xaree ye te yoxo yaa-yi faga logo wóó-li faluya-yi
 possible send dr on,to island-my

gé yi sa faga logo wóó-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 (sa's)

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 sa in (1), in that sa in (4) and be share the feature <+future>. Compare the following:

- E 49 Xo be buu doxo gè xa { (a) sa } xula-ya melee xa be fèèru.
 Pm { (b) be } 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 } mese feeefelee lee.
 { (b) be le }

(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 $S^{con}[\dots_]\mathbf{S}$. It never occurs in other positions including an independent or embedded sentence and a clause following a conclusive clause.

E 51 (a) Ye { be } mese.
 { *sa }

"He will die."

(b) [Ye be buu doxo]_S [gê]_{con} [yi dipali-ya [lâ yi { be }
 want that { *sa }
 xapatapata gali-yVre]_S]_S
 talk

"When he comes, I'd like to talk to them."

(c) [[Xaree ye towee buu doxo]_S [gê]_{con} [yi { be } loxo]_S]_S
 { sa }
 [yi { be } weri-ya]_S
 { *sa }

"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 gê yi { be } loxo.
 { sa }

"If he has come, I { may } go."
 { will }

- (b) Xaree ye sa buu doxo yiree-li raxe wee gè yi { be }
 year dm { sa }
 "last-year"

loxo Yulidiy.

"If he had come last year, I {might} have gone to
 {would}
 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 } buu doxo.
 want for-a- {(b) be }
 moment

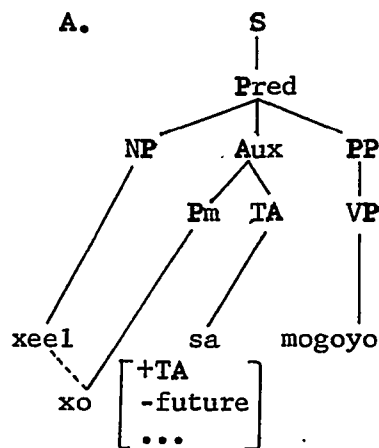
(a) "I want to be away for a moment, and then (surely)
 come back."

(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 difference 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.

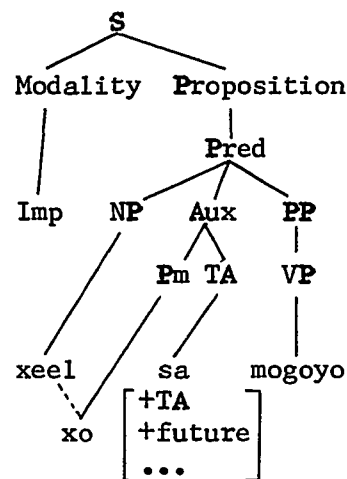
E 54 A.



Xo sa mogoyo.

"You have eaten."

B.

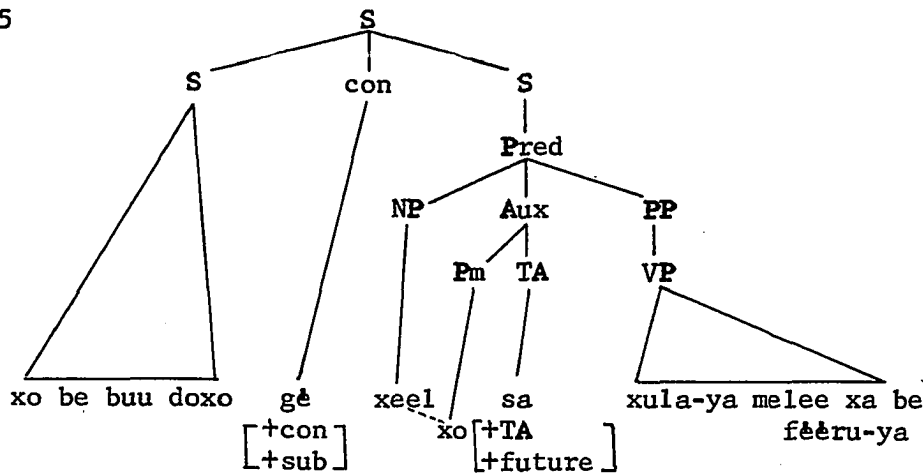


Xo sa mogoyo.

"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 gè ye sa le mese
 come die

feefele lee.
 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 fétété.
later

"I will finally eat after a while."

(c) Ye saab loxo walsuu.

"He will finally go tomorrow."

saab occurs also in imperative 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 gé xa saab la pulugu-ya.
go turn-over

"When it comes up, then go and turn it over."

(c) Fétété gé re saab buu doxo.
later

"After a while they will gradually come."

(d) Melwee ye sa rucuppugu loxo gé 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 ascribable 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 gè xa ma mogoyo m̄ayi.
 hb all time breadfruit

"Not always we eat breadfruit."

(b) Ye te pallege gè ye kkela.
 big strong

"He is not tall but strong."

(c) Yi te dipali-ya là ye be yule xacii.
 want that drink liquor

"I don't like him to drink alcoholic."

(d) Si te xula-ya melee si be le fèèru-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 male 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 fêêru-ya yegaage wee.
 again work

"We will not do the work again."

(b) Xo towee loxo.

"Don't go."

(c) Xo towee mucal loxo?
 inclined

"Wouldn't you like to go?"

(d) Xaree ye be buu doxo gê 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 rogogo?

"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 fêêru-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- make that food-our
 iike

"It seems that you haven't cooked our food."

- (d) Ye teed yoor melee ye wele mé yiree-li sukuun lee
 exist that change

yaa-mami.

"Nothing has changed here in our school."

- (e) Ye teed siilaye yaa-la pètéxo.
 long rain

"Not long ago it rained."

- (f) Teed yoxo sulu raxe mé yiyage gè ye sa mese
 possible, year from it
 become

malaa tama-yi.
 that father-my

"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 yiyage.
 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 lã ye be fãeru-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	<u>positive</u>	<u>negative</u>
(a)	be	towee
(b)	be le	towee le
(c)	le	de
(d)	sa <-future>	teed
(e)	sa <+future>	
(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 m̄ayi? "Is there still breadfruit?"

Tay yoor m̄ayi. "There is breadfruit no longer."

(b) Re ciil maséré? "Do they still sleep?"

Re tay maséré. "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 rules 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 gè 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 gè xiic cox gè 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 gè 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 gè 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 gè yilaa gè
yester- then
day

xa si loxo Yasor.

"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 nonoccurrence of *sa + negative, the sequence sa la + negative is allowed.

E 78 (a) Ye be la te mese yaramata wee gè xa towee lèba-ya.
die Em bury

"If the person is not going to die, don't
bury him."

(b) Xaree ye sa la tay maséré gè si be loxo sukuun.

"If he was not going to sleep, let's go to school."

(2) in embedded sentences

{ Be } (la "become") + negative particle may also occur in
{ Be le }

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 yimòò-li malaa
see before that

ye be teed mese.

"I must see him before he dies."

(d) Te yoor se-male là ye be te yiy dèlè-li Lamdax gè
one-anim 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 [[ye be lapa mogoyo]_S gè [ye te lapa mogoyo]_S]_S
 [+con
 [+coord]]
 gè [gaag yi towee mogoyo]_S
 [+con
 [+subord]]

and E 80 (a) will be derived from the following:

- E 82 [yi saab yegaage]_S gè [yi te yegaage]_S
 [+con
 [+coord]]

For the 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 ffèsègu-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 mooc wol kamaaxo-ya cox yixalaa.
 again watch it just now
 Mv Mv

"I finally (mooc) just watched it again just now."

E 85 [yi mooc kamaaxo-ya cox yixalaa]_S [g^é]_{con} [yi wol kamaaxo-ya
 cox yixalaa]_S

The following examples illustrate the relatively free order among manner particles:

E 86 (a) Ye { to ma xa } fitaa.
 { ma xa to }
 { xa to ma }

"They would usually readily go fishing."

(b) Ye { ciil ma } buu doxo.
 { ma ciil }

"He still comes."

(c) Ye towee { ma yixil } becikkara.
 { yixil ma }

"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) móó1 "first, for the first time"

Cf. xamóó "to go ahead"; yimóó- "before"; *móó

(c) xamóó1 "before"

Cf. xamóó "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 NP's 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 fossilized 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 waa'rese yaa-la mogoyo.
hard his eating

"He scarcely eats."

iv) Xaree re be le ma buu doxo ge gaag yi towee loxo.

"If they will (habitually) come, I will not go."

v) Medaa melee xo te ma sutambaye xala-yi yiyage?
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, year, age
about

"We (excl) do not usually think so much about age."

(c) te "for a while" (limited to imperative and embedded S)

- i) Yi dipali-ya yi be té loxo gé 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 té buu doxo.
 tell that

"Tell Doxormar to come here for a moment."

- iii) Xo be kassiya-yVre xaree re be té xagi-ya cox.
 ask if eat just

"Ask them if they will eat for a bit."

- iv) Té bii diye yiréètè.

"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 mooc buu doxo.
 person dm

"The man came just in time."

- ii) Yi mooc weri se-male tarmale la ye lli-yVre loxo.
 see one boy that kill dr

"I just now saw a boy who killed them (animate)."

- iii) Re sa wol mooc mogoyo faa-li se-wo.
 under one-NuCl(gen.)

"They just ate again."

- iv) Ye be siilaye ge yi saab mooc 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 ge 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, year, age
 about

"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."

(1) xal "only"

i) Re sa sêré 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) mucal "willingly"

Mécé laa ye mucal dabe-xica.
 poor-
 one

"The poor one wishfully followed us(incl)."

(n) yuxul "early, in the first place"

Tamolo Moxmox ye te ma mmale lâ re be te yuxul xagi-ya
 chief possible eat

suxufed mé yireæ-li wolo yimôô-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 sêré bo re-Yurop melee re môôl buu doxo wôô-li
 say that fm first on

Yulidiy.

"Perhaps Europeans were the first who came to Ulithi."

(p) xamôôl "before"

Si xamôôl 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 \rightarrow NP[^]NP

4.5.2. Syntactic Characteristics

This sentence type consists of two obligatory NP's: 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 NP's are dominated by the same category. Thus, order is more important than domination in the definition of the grammatical relation between the two NP's. The following convention may be adopted for this purpose:

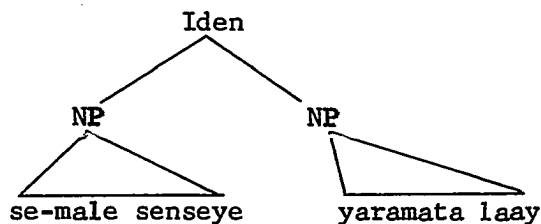
(a) Subject-of Identification: [NP__]Iden

(b) Predicate-of Identification: [__NP]Iden

The fundamental factor that distinguishes Identification from Predication sentences is the lack of Aux in the former.

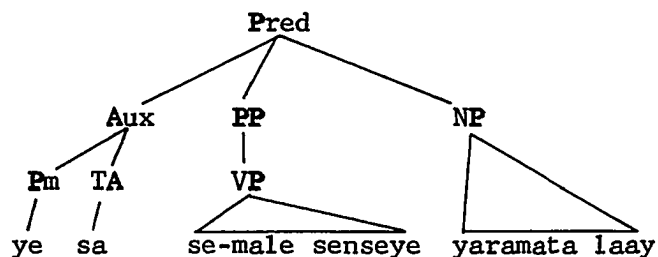
E 91

Identification (surface)



"That man over there is a teacher."

Predication (surface)

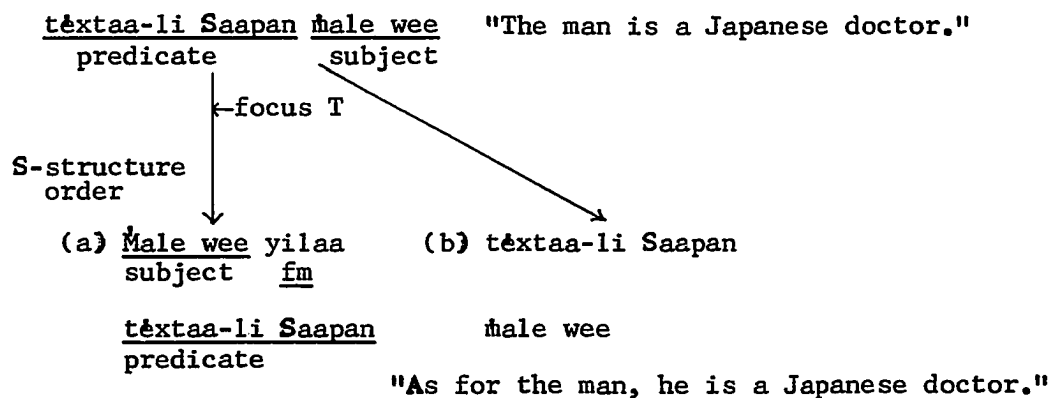


"That man over there was a teacher."

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.

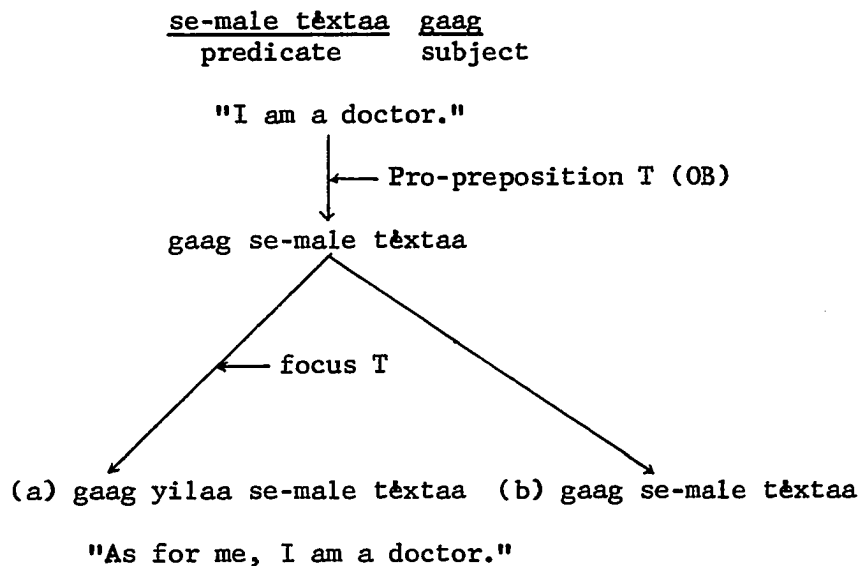
Thus,

E 92 D-structure order



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 l& re weri-ya lalow]_{NP_s}
 village that see yester-
 day

"The village which they saw yesterday is mine."

(c) [te yado-li fadê-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 l& re dadare doxo]_{NP_s}
 who people dm two walking dr

"Who are those two people coming this way?"

- (e) [xal se-male]_{NPp} [lawu-yire paabiya]_{NPs}
 only Cl pig

"They have only one pig."

- (f) [yifaa]_{NPp} [yida-mu]_{NPs}
 name at

"What's your name?"

E 95 : NP_s NP_p ($NPs = Pro$)

- (a) [gaag]_{NPs} [Ruxurimar]_{NPp}

"I am Ruxurimar."

- (b) [gaag]_{NPs} [yiiyee]_{NPp}
 this-
 here

"Here I am."

- (c) [xeel]_{NPs} [bisi-yi]_{NPp}
 brother

"You are my brother."

- (d) [xaamiyi]_{NPs} [re-Saapan]_{NPp} ?

"Are you people from Japan?"

- (e) [xeel]_{NPs} [yiitey]_{NPp} ?

"Who are you?"

- (f) [gaag]_{NPs} [te se-male male lapa]_{NPp}

"I am not an old man."

E 96 : NP_s fm NP_p

- (a) [re-cob kalaay re mele wob-li Yap]_{NPs} yilaa [re-Baalaw]_{NPp}
 people stay on fm

"Those people over there who live on Yap are Palauans."

- (b) [yima laay]_{NP_S} melee [yima-li Yiduwecox]_{NP_P}
 house fm

"That house (not this house) is Yiduwecox's."

- (c) [melee]_{NP_S} yilaa [caaa-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) [feefelee lee lawu-yi] \emptyset [yaa-mu kuwin] [malaa]
 girl Cl NPs fm Cl NPp

lawu-mu] \emptyset [yaa-mami lulapa]
 NPs fm king NPp

"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]_{Cl} Iden [mé (yiree-li) babiyoro kaa]_{dm} PrepP
 from book
 "Among these books, this one is mine."
- (c) [Falmey melee se xalege]_{family} Iden [mé wòò-li Moxmox] PrepP
 Luxlap [mé wòò-li Soxlay] PrepP Mèroc [mé 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 yikuweréé] PrepP [mé tabo-li end
 small near
 diye Pasifik] PrepP [mé 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 sèpele] Iden [yiyage] 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 nominalization 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 E100. In E 99 (a), the classifier and its member are related as subject-predicate without undergoing a nominalization. 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

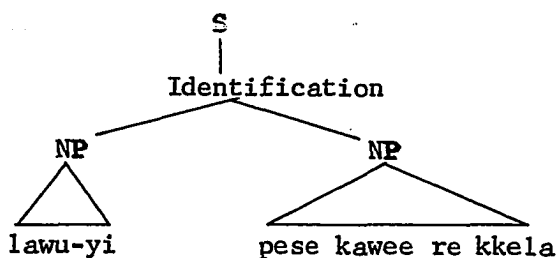
"Those dogs of mine are good."

(c) Re mommaye [pese kawee lawu-yi]_{NP}

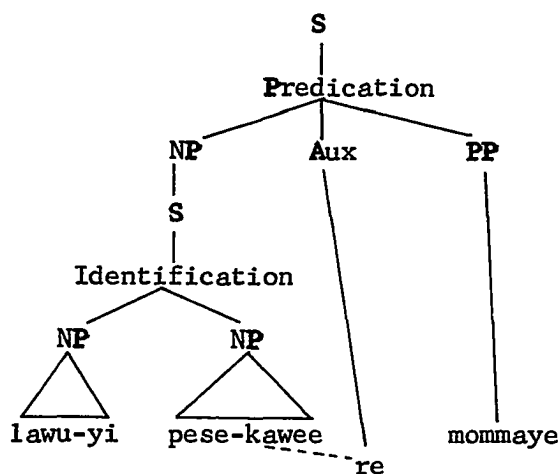
"Those dogs which are mine are good."

In the above examples, lawu- is a classifier and pese is its member.

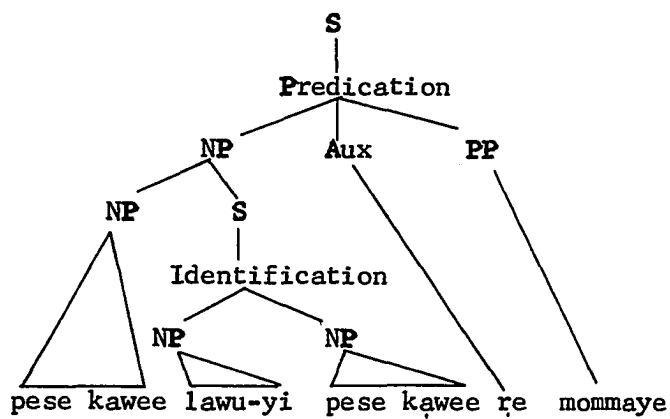
E 100 (a)



(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 ruwé-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."

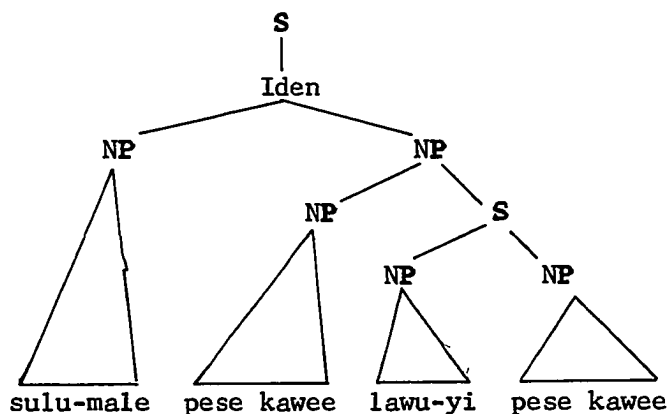
(lit. my dogs are three)

(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

nominalization 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) [[Lema-yi] [luu lee]]
 NP NP S

"This coconut is for me to drink."

(b) [[Lema-yi luu lee] yilaa ye mommaye]
 NP fm good S

"This coconut for me to drink is good."

The two NP's in E 104 (a) show a subject-predicate relation in an Identification sentence, while the same two NP's 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 nominalization, in that the same TR's nominalizing predicational sentences may now be applicable to the nominalization 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 [[lema-yi] [luu lee]]
 NP NP S

(b) luu lee ye mommaye (lit. this coconut (which is) good)

←= luu lee [[luu lee] [ye] [mommaye]]
 NP Aux 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. $\text{Iden} \longrightarrow \text{NP} \hat{\ } \text{NP}$) to define the selectional restriction existing between a classifier and the related NP, for which in a possible alternative an additional structure (e.g. $\text{NP} \longrightarrow \text{DET} \hat{\ } \text{NP}$) 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 séré 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 wóó-li Losiyop.
ng it those on

"There aren't such things on Losiyop."

(e) Re buu doxo yiiir senseye kalaa mē Meriken.
they

"Those teachers are from America."

E 107 (a) Malaay peya-li melwee rii-li feefelee wee
that grave-of that spouse-of girl dm

yilaa ye mommaye.
fm good

"That grave of that (unseen) husband of the girl
is good."

(b) Paaga-yire makawee bisi-la gē re sa mese.
all-their those brother-his die

"All those brothers of his died."

- (c) Re sa loxo yikawee móó-li yaramata.
 those first person

"Those elder brothers went."

- (d) Yiwee sa bii diye Beyiréx gè ye tay loxo yiwee
 then come dr ng that
 se-male.

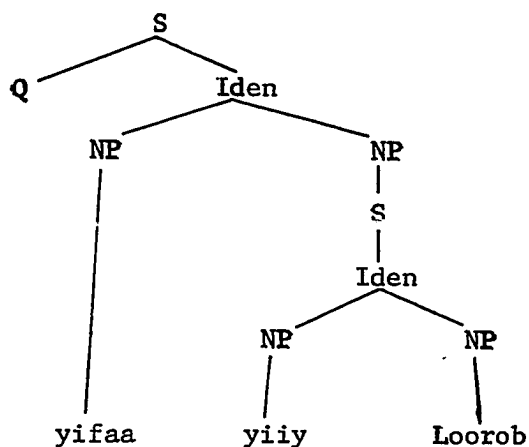
"Then Beyiréx went west, but the other guy didn't."

- (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 yiiir both of which are 3rd per. pronouns, and the selection of one or the other is dependent upon the person, number, and the animate-ness 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 NP may be freely permuted on the surface only by inserting a demonstrative enclitic or a complementizer (lâ or we) when the classifier follows the noun. However, in E 106, placing of yiiy or yiiir 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:

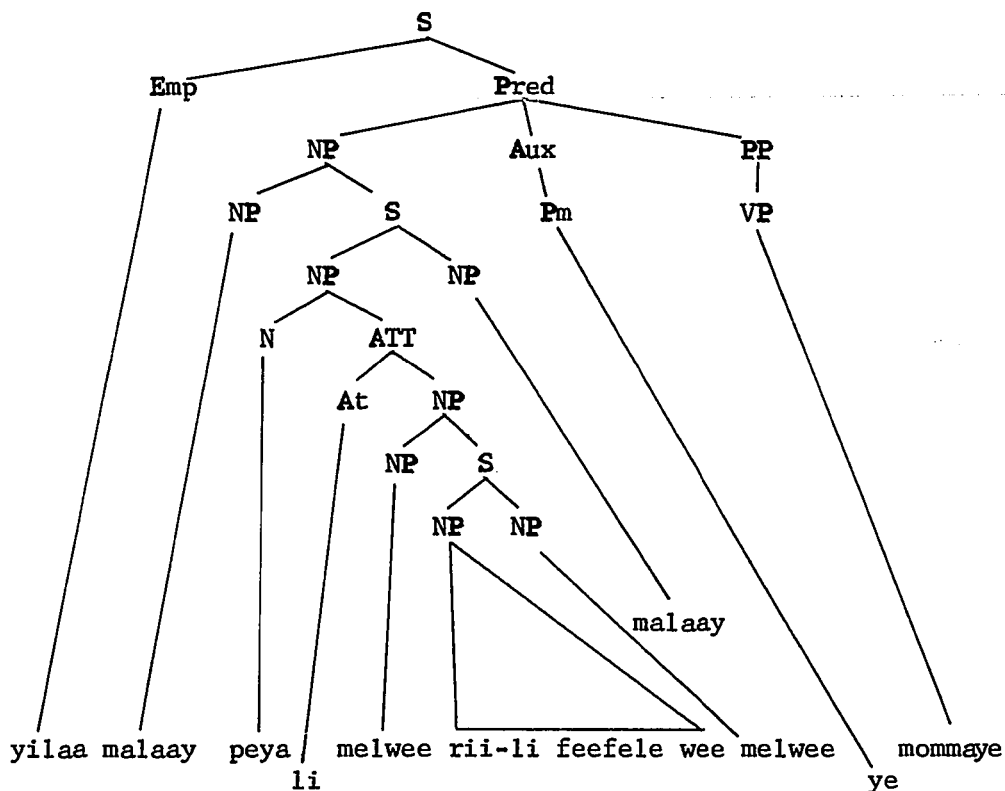
E 108



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 enclitic of the following NP. If there is a demonstrative enclitic on a noun, no proclitic demonstrative generally appears, except for yiyi or yiiir 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
- BR10 VB → Vb (NP)
- BR11 Vb → Vp (DIR) (Int)
- BR12 DIR → (Dr) (Dad)

Lexicon

cox	"just, only"	+Int
mo	"for a while, in the first place, even, at all, indeed"	+Int
xaamas	"very, extremely"	+Int, [-[+action] _V __]
xamay	"well"	+Int
suxufed	"a little"	+Int
téét	"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 NP's 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 NP's 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 NP's, since the obligatory nature along with a convention always keeps the two NP's separate and distinct. In order to avoid the difficulty arising from optional NP's, 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 formalization 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 NP's 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 NP's. If the two NP's 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] [yeliwici kalaa] [bo re be fêeru-ya melwee
 want child (DO) that do that
 ↑ Vp ↑ NP (DO) ↑ Vp ↑ NP(DO)

[bo yixili-yeyi] PrepP COM

for behalf-my

"I want the boys to do it for me."

(b) Yiiy melee ye sa [galle-ya] [se-male yaramata] [sulu-male
 fm pig NP(DO) NP(IO)
 ↑ Vp ↑ NP(IO)

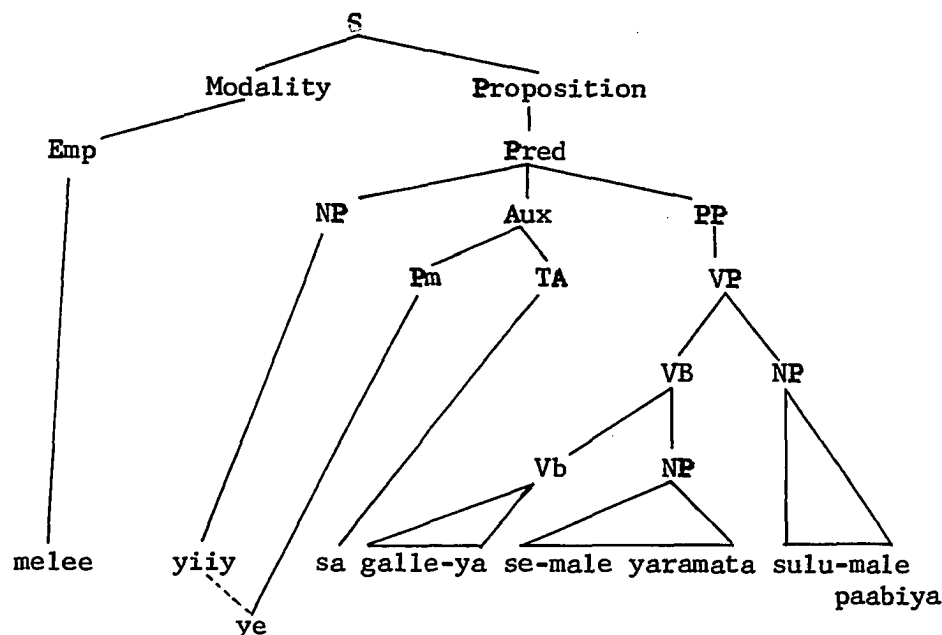
"He is the one who gave the man three pigs."

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]_{NPs}
 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 syntactic formalization 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 NP's: galle "to give," ddeye "to deprive," and dogoro "to ask, to borrow." Indirect NP's 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
3 Nucl knife
(long ob.)
Meriken]_{NP}

"I gave them three American knives."

(b) Re ma [ddeyi-xica]_{Vp} [/xiic/]_{NP} [boxata-cal]_{NP}
hb land-
property

gè re ma [ddeyi-xica]_{Vp} [/xiic/]_{NP} [waa-ca mè yima-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} [yiii tarhale wee]_{NP} [talee
go boy ax

wee yaa-la]_{NP}
dm Cl

"He went to ask the boy for his ax." or

"He went to borrow the ax from the boy."

(e) Yi be le [dogoro-ya]_{VP} [/yiii/]_{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 tèt t xoos [ruwè-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 [sèrè]_{VP} gali-ya melwee sila-la.

"He talked to his mother."

- (b) Ye [yoxo]_{VP} gali-ya /yiy/ [melwee ye dipali-ya
 possible that want
 /yiy/]_{NP}
 "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 wòò-li
 how time stay on

Yap]_{NPs} ?

"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 verbalized NP (see BR 17).

- E 117 (a) Ye sa [[[tatage-li kélòxo-li mese] [lòxo]]]
 crying hungry die Nm DIR NP VP

"He was crying because of hunger."

- (b) Re sa [[[pupugu-li mese] [diye]]] [wóó-li ppiya
 falling Nm DIR NP VP on sand

Falalap]prepP

"They fell down to death on the beach of Falalap."

- (c) Ye [[[ddare-li tattawulu] [daxe]]]
 run shouting Nm DIR NP VP

"He ran up shouting."

- (d) Re [[[yafa-li xamagulu] [weya]]]
 pm swim song Nm DIR NP VP

"They swam away singing."

- (e) Ye te [[[ttiri-li mmata] [daxe]]] [feefelee wee]
 quick wake up Nm DIR NP VP woman NPs

"The woman is quick in getting up."

- (f) Ye sa [[tagi wee [cox]]]
 cry dm Int NP VP

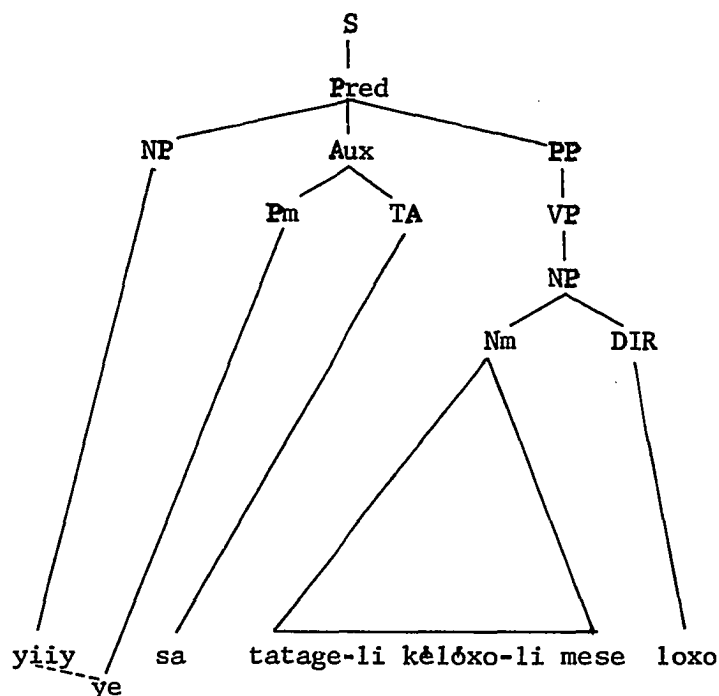
"He just kept crying."

- (g) Xo ciil [[yeliwici [xaamas]]]
 pm still child very Int NP VP

"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 nominalized in this way.

It seems that all subgroups of ncuns or noun phrases may behave as the main verb in certain constructions. It follows that if a construction cannot be verbalized in this way, it is not an NP. Thus, particles like ciil (+Mv) "still," sa (+TA), cox (+Int), doxo (+Dr), gê (+con) as well as gali "to" + NP (PrepP), etc., do not occur as the main verb. Therefore, they are not NP's. Examples of some subgroups of NP follow.

E 119 (1) interrogative-words

- (a) Ye be [feda-yaye]_{NP} [piskaa l& xo be cuwaye]_{NPs} ?
 how- NuCl spear that buy
 many

"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 [babiyo-ro-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-cob kawe
be-prepared for, people dm
at

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 /yiy/]_{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} [yiyee]_{NPs}
food

"This will be my food."

- (h) Ye sa [bisi-yire]_{NP} [tanhale 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 rale]_{NPs}
that fortune all
telling

"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 mo xamay }
watch { (ii) xamay cox mo }
{ (iii) mo cox xamay }

"Look at it well just a while!"

(b) \Leftarrow (i) Kamaaxo-ya cox g^e kamaaxo-ya mo g^e
kamaaxo-ya xamay

(ii) Kamaaxo-ya xamay g^e kamaaxo-ya cox g^e
kamaaxo-ya mo

(iii) Kamaaxo-ya mo gè kamaaxo-ya cox gè
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 below.

E 121 (a) Ye sa [kkili]_{VP} [loxo]_{DIR} [cox]_{Int}
dig

"He just dug out."

(b) Yilaa fala-li makaa xiya-yi bo yi sa [dabe-ya]_{VP}
that reason mat because

[loxo]_{DIR} [mo]_{Int} [yelus]_{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 [magxuwa] _{VP} [fadale] _{DIR} [cox] _{Int} [wòò-li]
fool around on

Xuwam] _{PrepP}

"I just fooled around on Guam."

(b) Yi teed [weri-ya] _{VP} [cox] _{Int} [/yiy/] _{NP}
ng see

"I just haven't seen him yet."

(c) Ye [moooc] [teemi-ya]vp [cox]Int [talee wee yaa-ia]NP
 Mv sharpen ax

"He just sharpened his ax."

mo

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 [mo]Int [coo lee]NP
 throw copra

"In the first place throw this copra down."

(b) Xa le [fifiyogo]vp [mo]Int
 telling-
 stories

"Continue your (pl) story for a while."

(c) [Wedi-yeyi]vp [mo]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 ax dm their men-of-
 old-days

we ye tay [lamafii]vp [mo]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} [mo]_{Int} [se-male]_{NPs}
 alive

"No one even survived."

(c) Tay [yoor]_{VP} [mo]_{Int} [faa-li se-wo]_{PrepP} [lã ye be ciil
 ng exist under one still
 mele wòò-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 adjectivization 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 male 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 tarmale] [lã
 king have-as boy NP who
 child

ye xarêta-li pallege gè ye [musosowa]_{VP} [xaamas]_{Int} [mè
 end-of big strong

but *Re mehee [fagali]_{Dad} [fadale]_{Dad}

*Re mehee [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 meri daxe-yeyi.
search

"They searched for me upward."

(b) Xacuya-yVre fagali-yVre recòò kalaa gè xo sa
let leave people

xabii daxe-yVre wòò-li Fayis.
let go them on,to

"Send those people together to Fais."

Secondly, the anaphoric doubling of Dr (see E 131) is not paralleled 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- Dr Os Dr
 walk

"He made me walk away."

(b) Yi be xapugu-diye-yVre diye
 make- Dr Os Dr
 fall

"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 TR's 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) meri-yeyi daxe : meri-daxe-yeyi

"to look up for me"

(c) xamobu-xo diye : xamobu-diye-xo

"to duck you down"

(d) xahucu-yVre logo : xahucu-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 & 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') [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') [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') [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 ⇒ { fidi loxO
 go with 3rd sg. { fidaa loxO
 "to go away with him"
- (b) suuxu + -ya +loxo ⇒ { suuxuu loxO
 open { suuxaa loxO
 "to open it up"
- (c) lixidi + -ya +diye ⇒ { lixdii di(y)
 leave { lixdaa di(y)
 "to leave him behind"
- (d) xamolo + -ya +daxe ⇒ { xaxoloo dax
 finish { xaxolaa dax
 "to finish it up"
- (e) ruxu + -ya +doxo ⇒ { ruxuu doxO
 pick & { ruxaa doxO
 bring

		"to pick it up & bring it hither"
Cf. fidi-yeyi loxo go away with me	=> {	fidiyey lox0 *fidayey lox0
lixidi-xo diye leave you behind	=> {	lixdixo => lixduxU *lixdax0

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.

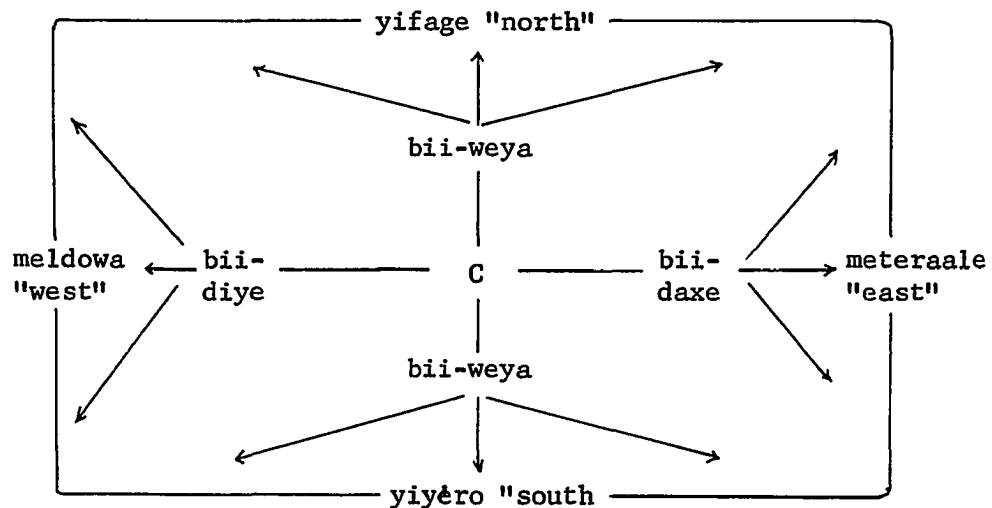


FIGURE 6

GEOGRAPHICAL DIRECTION

(5) The same form as Dr loxo is used as the verb meaning "to go."

E 136 Xo be loxo yiyaa?

- (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" |
| fadélé loxo | "paddle away" |
| lokaa loxo | "lock up" |
| lli-ya loxo | "kill him" |
| masère 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" |
| xutéfi-ya loxo | "spit it away" |
| xasséxu-ya loxo | "fill it completely" |
| tala-ya loxo | "wash it completely" |

diye

E 140 (a) Mariyaa ye [weri]_{VP} [tarmale wee [ye[dare]_{VP} [diye]_{Dr}
 boy walk

[wób-li ppiya]_{PrepP[S]}_{NP}
 on sand

"Mary saw the boy walk toward the beach."

(b) Yitoli [diye] -yeyi [diye]
 put Dr Dr

"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) ciña doye "turn face down"

garcappa diye "lie flat"

meri-ya diye "look for him westward"

peda-ya diye "throw it down"

welwéle diye "straightened down"

taxace-ya diye "let him free"

xawéle-ya diye "straighten it down"

daxe

E 141 (a) Ye sa [papallege]_{VP} [daxe]_{Dr} [tarmale wee]_{NPs}
 getting- boy
 big

"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} [mè wòò-li Yulidiy]_{PrepP}
grow

"They have fostered me on Ulithi."

(d) bulu daxe	"start"
ciha daxe	"get up"
ddewélè daxe	"choose"
ffèsè 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"

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') Re [yaga]_{VP} [gali-ya /yiiy/]_{PrepP}

"They reached it."

(b) Re [yaga]_{VP} [fatagi]_{Dad}

"They reached away from each other."

(b') Re [yaga]_{VP} [tagi-ya yaramata wee]_{PrepP}

"They kept off the person."

(c) Re sa [xateyeli-ya]_{VP} [fagali-ya]_{Dad} [babiyo-ro kawe]_{NP}
gather

"They gathered those books together."

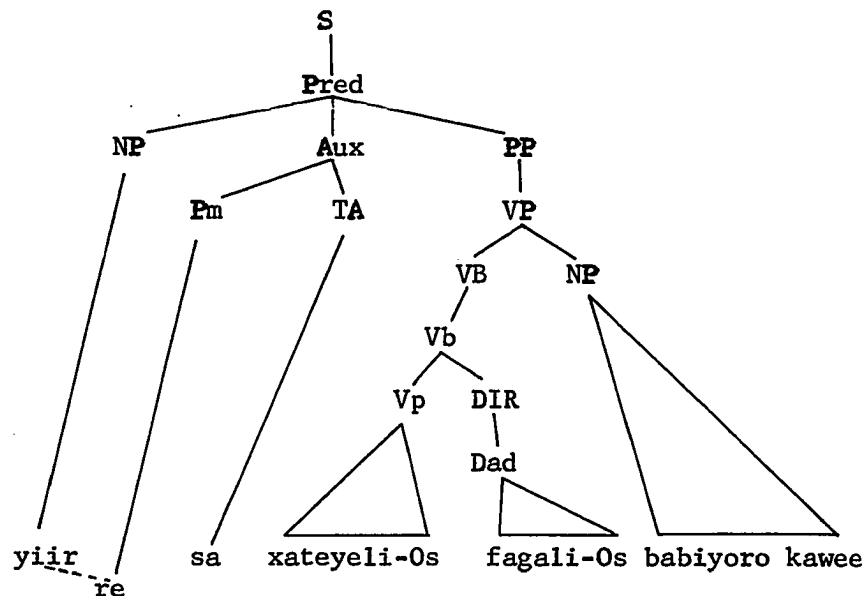
(c') Re [dabe-yVre]_{VP} [saldawe kawe]_{NP} [gali-ya Fadalay]_{PrepP}
follow

"They followed the soldiers to Fadalay."

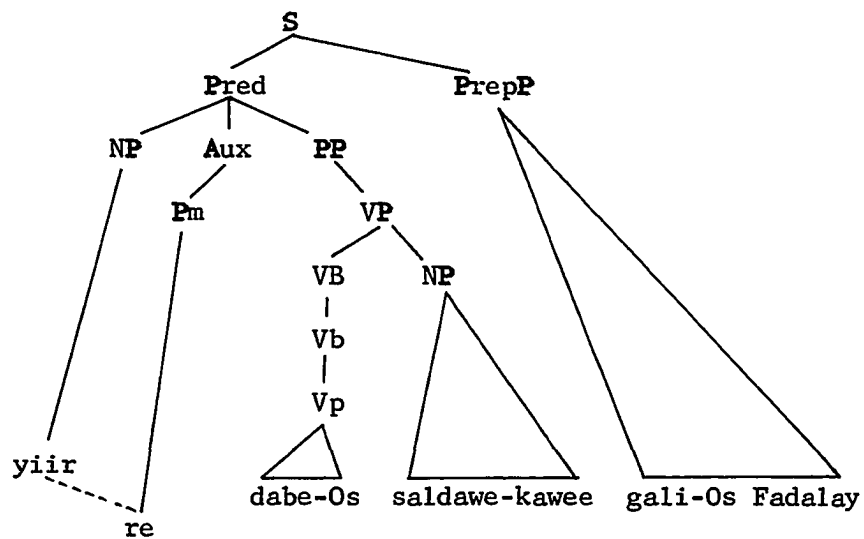
Secondly, as noticed in E 144 (c and c'), fagali and fatagi never follow the object of the verb but the object follows them, i.e. their object and that of the verb are one and the same; gali and tagi have their own object which has nothing whatsoever to do with that of the verb. Thus, for example, E 144 (c) and E 144 (c') 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 $\left\{ \begin{array}{ll} \text{momeeri-ya} & \text{fadale-ya} \\ \text{momeeri} & \text{fadale-ya} \\ * \text{momeeri-ya} & \text{fadale} \\ * \text{momeeri} & \text{fadale} \end{array} \right\}$ se yalapa.
road

"They were searching around for a way."

(b) Recòò kalaa re $\left\{ \begin{array}{ll} \text{xasi-xo} & \text{fagali-xo} \\ \text{xasi} & \text{fagali-xo} \\ * \text{xasi-xo} & \text{fagali} \\ * \text{xasi} & \text{fagali} \end{array} \right\}$ /xeel/ mè
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 one will 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} [babiyo-ro 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 TR's 13 and 21.

E 149 Yeliwici kalaay re [tutuxu-yVre]_{VP} [fagali-yVre]_{Dad}
 hitting

↔ = yeliwici kalaay Pm tutuxu-Os fagali yeliwici

kalaay

"Those children are hitting one another."

(4) More examples on individual Dad members follow.

fagali

E150 (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/ mē
 carry

babiyoro kawee]_{NP}

"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 mē
 distribute 1 Nucl

se-male wolo kaa]_{NP} S [gē]_{con} [xo sa [faga]_{VP}
 turtle send

[loxo]_{Dr} [wóó-li Moxmox]_{PrepP}S

"Send all those turtles separately to Mogmog!"

fadale

E 152 (a) Re [meme]V_P [weya]_{Dr} [fadale]_{Dad} [tagi-ya /yiyi/]_{PrepP}
search

"They looked around for it away from it."

(b) [Xasi-ya]V_P [fadale-ya]_{Dad} [weya]_{Dr} [/yiyi/]_{NP}
carry

"Carry it away!"

(c) Ye sa [fidi-ya]V_P [fadale-ya]_{Dad} [weya]_{Dr} [/yiyi/]_{NP}
follow

"He followed her around."

se-wo

E 153 (a) Re [cuya]V_P [se-wo]_{Dad} [mè yiree-li sukuun]_{PrepP}
leave from

[sa [buu]V_P [doxo]_{Dr}]S

"They returned from school together."

(b) Re ma [mele]V_P [se-wo]_{Dad}
live

"They always live together."

(c) [[Te fedexe]_{NP} [malaa]_{NP}]S [bo]_{con} [[fedexe-li tarmale]_{NP}
fight that boy

[lã xaamiyi xa sa [xaccaxasi-ya]V_P [se-wo]_{Dad}
that you(pl) boast

[yalo-li male]_{NP}COM]_{NP}
voice man

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 PrepP's 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 PrepP's. 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 differs 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-Phrase 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 categorial 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 formalization 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 nonappearance 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 favor of the "hyperclass" treatment proposed here.

(1) The inconsistency between the traditional case distinction and the corresponding formal differences is too great to connect the cases and the different types of PrepP's in any simple way. For example, "locative" may be expressed with preposition proper (Prp) mē "to, from, at," verbal preposition (Vpr) gali "to," nominals wōō- "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 generalization. A better way seems to be to stick to the formal differences alone. Then the notional (semantic) differences of PrepP's are recognized 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 lining up optional PrepP's 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 NP's. 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 them 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 lã ye xamòò { [mê yimòò-yi /gaag/]PrepP
ng exist who go-ahead { [yiree-li ddare wee]PrepP
at run dm

[yiree-li ddare wee]PrepP }
[mê yimòò-yi /gaag/]PrepP }

"Nobody preceded me in the race."

(b) Xa lixidi-ya bo ye be yalapa daxe { [la-li xowuu
Pm let-him so- way, dr { in,on lavalava
that walk [gali Lamdaxe]PrepP
to

kalaa]_{PrepP} [gali Lamdaxe]_{PrepP}

[1a-li xowuu kalaa]_{PrepP}

"You (pl), let him walk up on the lavalava (path)
to Lamdax."

(c) Xa sa lli-ya xalufu wee { [yiree-li sukuun wee]_{PrepP}
kill lizard 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. Subcategorization 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 **PrepP**'s by conjunction reduction transformation in a way parallel to other categories such as **Mv**'s, **NP**'s, **PP**'s, and **Int**'s. 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 lã ye xamòò mè yimòò-yi /gaag/
gè ye xamòò yiree-li ddare wee.
- (ii) Te yoor se-male lã ye xamòò yiree-li ddare wee
gè ye xamòò mè yimòò-yi /gaag/.

Any arrangement of ordering in a more favored way among **PrepP**'s themselves or **PrepP**'s and other elements on the surface may be specified also in **TR**'s. For example, gali + pronoun is placed more favorably before an object **NP** consisting of a noun or noun phrase, as in E 156.

- E 156 Yi sa [kaya]_{tell}_{Vp} [gali-ya /yiyi/]_{PrepP} [dédèé-li luu]_{climb}_{NP}

"I told him how to climb coconut trees."

4.7.3. Internal Structure of **PrepP**

The set of prepositions proper (mè 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 mé (+Prp), while only yixili may be preceded by Prp bo. The co-occurrence restrictions involved are indicated below.

TABLE VIII
CO-OCCURRENCE OF PREPOSITIONAL ELEMENTS

	Prp		PrV			NP
	<u>mé</u> "from"	<u>bo</u> "as"	<u>gali</u> NP "to"	<u>tagi</u> NP "away from"	<u>yixili</u> NP "for"	
(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 [mé]_{Prp} [faa-li yoco]_{NP}
pick out just under reef

"They would just pick (them) out from under the reef."

(a2) Xo be xamòò [mé]_{Prp} [yimòò-la /yiy/]_{NP}
go-ahead before-him

"Go ahead of him."

(a3) Yi sa cuwayi-ya [mé]_{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 feefelee 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
tarnhale bedaya]_{NP}
boy fat
"She has become the mother of a fat boy."
- (d) Yado wee ye sa yagasi-ya /yiy/ gè 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 /yiy/ [tagi-ya yiha 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 /yiy/ [cediyo-li melwee boxata-yire/yiir/]_{NP}
"They waited for her at the entrance to their village."

It might be possible to reformulate BR13 and BR14 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," wóó- "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 BR13 as, for example, in

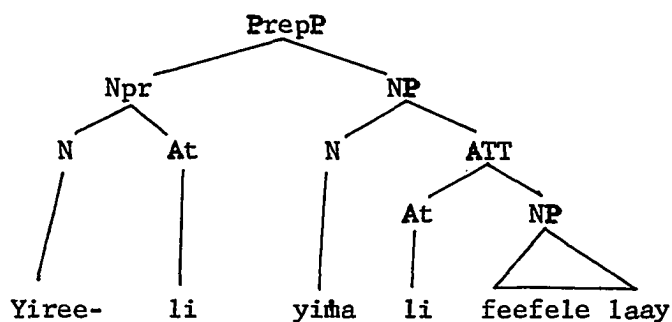
$$\text{PrepP} \longrightarrow (\text{Prp}) \left\{ \begin{array}{l} (\text{Npr}) \text{ NP} \\ \text{PrV} \end{array} \right\}, \text{ where Npr is the category involving}$$

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. *yima-li yiree-... but yiree-li yima). (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 others 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

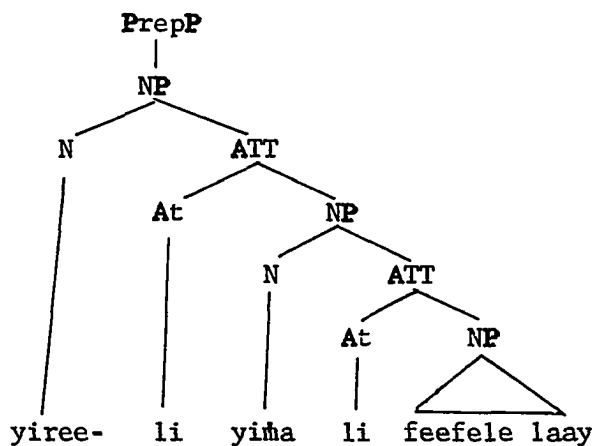
same as N + an attributive suffix (+At) (e.g. yiree-li yima "at home"). Secondly, an important generalization would be sacrificed if pseudo-prepositionals were separated from NP's. That is, recursiveness in attributive constructions, which is a general process, could not cover pseudo-prepositionals. For example, yiree-li yima-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 idiosyncrasies 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 mé 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 fossilized prefix of the following word as will be discussed later.

There do not seem to be co-occurrence restrictions which may be generalizable 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 NP's in Identification. Prp occurs not only with action and stative verbs but also with NP's 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 [mé leba-li yaa-yi yeliwici]_{PrepP}
 [want wrestling time child]
 [+V
 +state]

"From my childhood, I've been interested in wrestling."

(b) Re sa [buu] doxo [mé 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] [mê wòò-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 [mê yiyage] gè ye sa mese.
 Pm one month it PrepP

"In a month he died."

(e) Ye coolopa yixi mê wolo là 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 [mê yiyage] 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 mê 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 [mê meta-li dawé wee]_{PrepP}
 walk dr just head channel

"They just walked from the head of the channel."

(b) Yi sa cuwayi-ya pinsan lee [mê kantin]_{PrepP}
 buy store

"I bought this pencil at the store."

(c) Yi loxo [mê siyaa-li Yasor]_{PrepP}
 go boundary

"I went up to the boundary of Yasor."

(d) Buu doxo [mê lécécécé-li fala lee]_{PrepP}
 middle men's
 house

"Come here to the middle of this men's house."

Mê never occurs with PrV, but with NP. Even in its occurrence with NP, there are some generalizable restrictions. For example, mê does not occur with pronouns, nouns with <+animate>, nouns meaning dwellings, portable items, etc., and nominalized verbs. In these cases, mê may occur if a pseudo-prepositional intervenes between mê and the following element.

E 162 (a) *Ye buu doxo mê yíir. but Ye buu doxo mê yíree-yíree /yíir/.

"He came from them."

(b) *Re sa cuwayi-ya mê yaramata wee.

but: Re sa cuwayi-ya mê yíree-li yaramata wee.

"They bought it from the man."

(c) *Re sa buu logo mê baarkoo.
 come in ship

but: Re sa buu logo mē yicuu-li baarkoo.

"They came in from the ship."

(d) *Biyaa lee yilaa ye fēēru mē pēraase.
 fm made rice

but: Biyaa lee yilaa ye fēēru mē yiree-li pēraase.

"Beer is made from rice."

(e) *Mē yiitey melee ye buu doxo salapiya lee?
 who fm money

but: Mē yiree-li yiitey melee ye buu doxo salapiya lee?

"From whom did you receive the money?"

(f) *Re sa pēyē loxo mē xataxace-li xobaye.
 stop throw spear

but: Re sa pēyē loxo mē yiree-li xataxace-li
 xobaye.

"They stopped the throwing of spears."

Mē, 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 generalization will be to subclassify all nouns into <+locational> and <-locational> according to the possibility of their occurrence or non-occurrence with mē, and the lexical entry for mē will be specified with the feature [+ [+locational]]. The examples just given are <+locational>, while such nouns as baarkoo "ship," yihā "house," mogoyo "food," pēraase "rice," yiiir "they (Pro)," medaa "what?,"

yiitey "who?" are <-locational>. Observe the following examples for <+locational> nouns.

E 163 (a) Ye buu doxo yiy melmélé laa [mé yiyaa]_{PrepP}
 typhoon dm [where]
 [+N]
 [+loc]

"Where is the typhoon coming from?"

(b) Fm Xa buu doxo [mé yixaa]_{PrepP} bo si be sefeedele.
 [here] so- talk
 [+N] that
 [+loc]

"You (pl), come over here so that we may talk."

(c) Ye sa buu logo [mé lagace-li tade]_{PrepP}
 [beside] séa
 [+N]
 [+loc]

"He came in from the side of the sea."

(d) Ye sa suu weya [mé luxu-li yalapa wee]_{PrepP}
 stand dr [back] way
 [+N,+loc]

"He stepped outside the path."

(e) Re sa kakka logo mogoyo [mé 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 [mé yiree-li kko-la]_{PrepP}
 future [at] custom
 [+N]
 [+loc]

"According to her custom, smoke was the sign to decide where Bexawo would be staying."

- (g) Yi sa yafara-ya [mê la-li yiy yusaxale wee]_{PrepP}
 carry [in fish-
 +N trap
 [+loc]

"I carried it from that fish trap."

- (h) Ye coolopa yikalaa ye towase [mê yimôô-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 [mê wôô-mu]_{PrepP}
 what fm pain [on
 +N,+loc]

"What is your pain?"

- (j) Tay siilaye [mê yiyage]_{PrepP} gê sa yoxo lâ ye riirii.
 ng long [there possible get-
 +N,+loc] 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, yiyaa "where?," anaphoric yiyage "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]
 girl Cl live PrepP

[wób-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 fèèru-yeyi /gaag/ [bo kaapin] PrepP
 make

"He made me a captain."

(d) Yiwee ye sa fèèru-ya [bo se-wo piskaa] PrepP
 then spear

"Then he made it into a fishing spear."

(e) Re sa xammale-ya /yiy/ [bo yixili-xo /xeel/] PrepP
 prepare

"They prepared it for you."

Incidentally, bo and lâ look much the same in function on the surface.

In most cases, lâ may replace bo with a slight difference in meaning.

E 165 (a) Ye mele se-xaye m̄ayi bo xala-li se-male yelusu.
 NuCl breadfruit Cl(food) ghost

"There is a breadfruit tree for a ghost's food."

(a') Ye mele se-xaye m̄ayi l̄a xala-li se-male yelusu.

"There is a breadfruit tree which is a ghost's food."

(b) Male kalaa bisi-yi /gaag/ re ma faga gali-ya /yiyi/ cox melwee
 man dm brother give that

xilLi yuya-li wolo bo yilidi-la /yiyi/.
 skin neck share

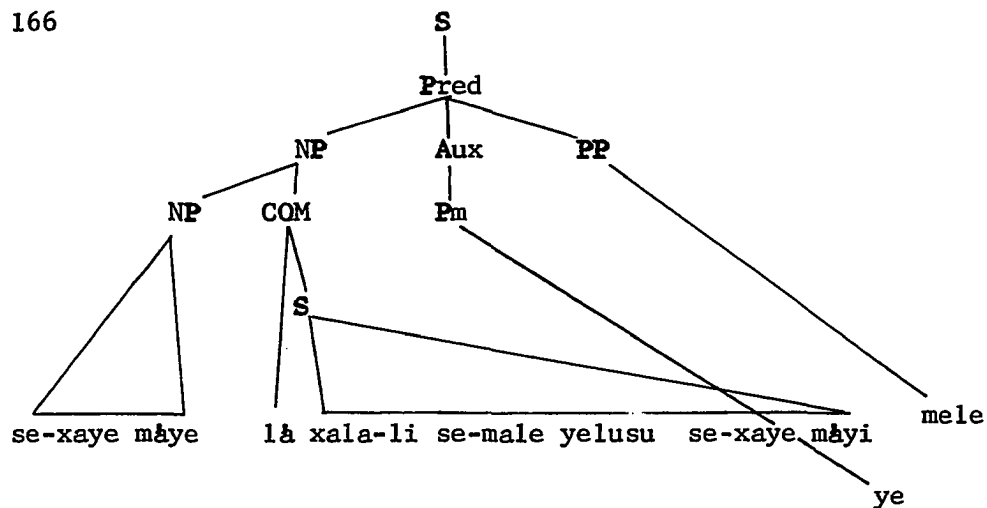
"His brothers gave him the skin of turtles' neck for
 his share."

(b') Male kalaa bisi-yi /gaag/ re ma faga gali-ya /yiyi/
 cox melwee xilLi yuya-li wolo l̄a yilidi-la /yiyi/.

"His brothers gave him the skin of turtles' neck
 which was his share."

It has been decided that bo is a preposition but l̄a is a complementizer on the grounds that l̄a, apart from its meaning, can most adequately be described as a complementizer initiating sentences of various types. Thus, l̄a xala-li se-male yelusu in E 165 (a') is interpreted as derived from the underlying l̄a xala-li se-male yelusu se-xaye m̄ayi 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') Yi be le faga [gali-xo /xeel/]_{PrepP} [tarmale lee]_{Np}
boy

"I will give the boy to you."

(b) Yi be le xasi-ya [tagi-ya yiha lee]_{PrepP}
carry house

pese wee_{NP}
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 mé 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 [ffèsègu]_{VP} [gali-ya xece]_{PrepP}
call rat

"He shouted to the rats."

(c) Yi [ffèrèxu]_{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 [xéru]_{VP} [gali-ya /yiyi/]_{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 mé "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. yiyaa "where." Examples follow.

- E 169 (a) [Yaga]_{VP} [tagi-ya /yiyi/]_{PrepP}
 touch

"Keep off."

Cf. Yaga gali-ya. "Touch it."

- (b) Ye sa [xawu]_{VP} [tagi-ya yegaage]_{PrepP}
 run- work
 away

"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- sand
 rowing

"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] [yixili-yVre saldawe
 king need food VP
 kawee]_{PrepP}

"The king needed food for the soldiers."

- (b) Yi be [mele]_{VP} [yixili sulu-yexe ment]_{PrepP} [wóó-li
 thirty on
 Kuwacuren]_{PrepP}

"I will be staying on Kwazuren for thirty minutes."

- (c) Ye sa dipali-ya /yiiy/ l& ye be le mele [bo yixili-yVre /yiiir/]
 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 mé but never after bo and after Vprs gali, tagi, or yixili; (5) they share the feature <+locational>; and (6) they may undergo adjectivization (see 4.10.5 & TR 38).

Pseudo-prepositionals are subgrouped into two series, those which have possessive inflection and those which do not.

TABLE IX
PSEUDO-PREPOSITIONALS

<u>+inflection</u>		<u>-inflection</u>	
<u>+defective</u>	<u>-defective</u>		
	yiree-	*	"at"
	yifaa-	faa-	"under"
	wuwóó-	wóó-	"on"
	lagace-	gace-	"beside"
	yimóó-	*	"before"
	lepada-	*	"between"
	luwélu-	*	"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 yima.

"He entered the house."

Ye buu logo la-li yima 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 wuwóó-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.

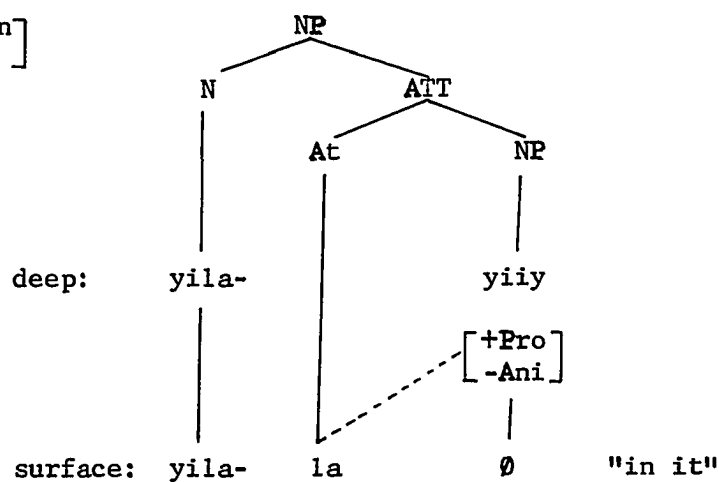
"I will stand on this box."

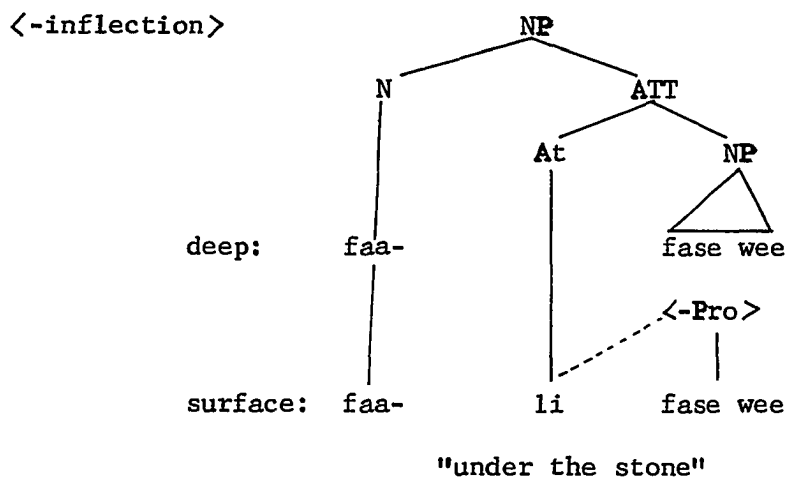
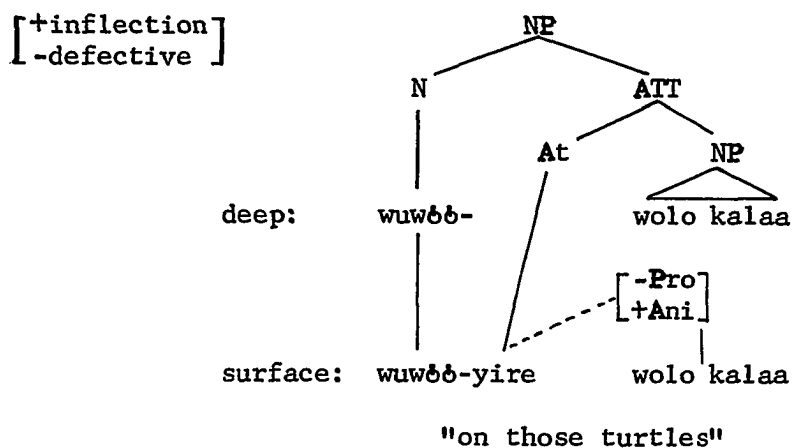
but: *Yi be suu daxe wòò-li.
(*wòò-la)

In the light of syntactic rules, the series with $\langle +\text{inflection} \rangle$ and that with $\langle -\text{inflection} \rangle$ are both derivable from $Nm \rightarrow N^{\wedge}ATT$ (BR 18) and $ATT \rightarrow At^{\wedge}NP$ (BR 19), but the difference between the two series lies in the fact that the former occurs in $_ At^{\wedge}[+Pro]_{NP}$ but the latter is limited to the environment $_ At^{\wedge}[-Pro]_{NP}$. Furthermore, the defective subset occurs only in $_ At^{\wedge} \begin{bmatrix} +Pro \\ -Ani \end{bmatrix}_{NP}$ compared to the non-defective subset which has a wide environment, i.e. $_ At^{\wedge} \begin{bmatrix} +Pro \\ +Ani \end{bmatrix}_{NP}$. Examine the following illustrative trees.

E 172

$\begin{bmatrix} +\text{inflection} \\ +\text{defective} \end{bmatrix}$





Except for lagace- and wuwóó-, 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 wuwóó- 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 >	
yimiri	miri-	"after"
yiluxu	luxu-	"back-side"

E 173

- (a) Xo la mele mē
go stay from
- | | | |
|---|-----------|---|
| { | yimiri | } |
| | *miri | |
| | *miri-la | |
| | yimiri-la | } |

"Come from behind it."

- (b) Xo la mele miri-li yaramata lee.

"Come after this person."

- (c) Yi buu logo mē
- | | | |
|---|-----------|---|
| { | yiluxu | } |
| | *luxu | |
| | *luxu-la | |
| | yiluxu-la | } |

"I came in from the back-side."

- (d) Ye sa suu weya mē {yiluxu-li } yalapa wee.
stand dr {luxu-li }

"He stepped outside the path."

- (e) Yiluxu-li faluya yilaa malaa liliya-li yaa-yire
island fm that place Cl

feefele wōō-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 mē, i.e. nouns with the feature

- E 176 (a) Ye ttiri [yiree-li dodoro-li wolo]_{PrepP}
 quick catch turtle
 <+abst>
 "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 ocean
 <+abst>
 "What is 'school' in Ulithian."

(4) other nouns with <-locational>

- E 177 (a) Ye ma mogoyo [yiree-li boxata-la]_{PrepP} [la pala-
hb home in
 <-loc>
 liyolo]_{PrepP}
 evening
 "He eats at home in the evening."
- (b) Coon melee ye kóókomo [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 dèldèlé [yifaa-li
 road lavalava shining faa-li
 yalo]_{PrepP}
 sun
 "The road of lavalavas 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 réba-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 rogoro pupugu-li wuwaa-li yiyi m̄yi l̄a yiyi
 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. Wuwób- "its upside" and wób- "on" occur most often with <+concrete> NP, but occasionally also with <+time> nouns with the meanings "on, at, in, for." Wób- does not occur with pronouns as already indicated.

- E 179 (a) T̄ét yir faluya kalaa yilaa te yoor [yiree wuwób-
 some they island dm fm ng exist tree

la]_{PrepP} 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 légè [wuwòò-yi /gaag/] **PrepP**
 ant
 "There's an ant on me."
- (c) Si sa loxo [wòò-li ppiya] **PrepP**
 go
 "Let's go to the beach."
- (d) Re mele [wòò-li Baalaw] **PrepP**
 stay
 "They live in Palau."
- (e) Dàà daxe [wòò-li sukuun lee] **PrepP**
 climb dr
 "Climb up on this school."
- (f) Ye sa sèré bo yi be le yafa logo [wòò-li faluya] **PrepP**
 say that swim dr island
 "He said that he would swim to the island."
- (g) Yi towee mogoyo yixi [wòò-li se-wo wiik] **PrepP**
ng eat fish <+time>
 "I won't eat fish for a week."
- (h) Wòò-li miri-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} loo wee] **PrepP**
 go stand { gace-li } water-storage

"He went and stood beside the water storage place."

- (b) Re mele [{lagace-li} xaleesiyaa wee] PrepP
 stay {gace-li} church

"They are near the church."

- (c) Re sa maroo diye [lagace-yi /gaag/] PrepP
 sit dr

"They sat around me."

- (d) Ruwé-male re memmele [yiree-yi /gaag/] PrepP [la-li
 two-NuCl staying
 se-wo yima] PrepP [{lagace-li} tade] PrepP
 one house {gace-li}

"Two of them are living with me in a house near
 the sea."

4.7.6.6. Yimóó- "in its front, more than"

In the meaning of "in front of," yimóó- 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 mé optionally precedes, yimóó- may occur with any subset of NP as far as semantically acceptable.

- E 181 (a) [Yimóó-li lawu-li yiitey] melee ye sa mese?
 Cl(child)who PrepP fm die

"In front of whose child did it die?"

- (b) Re sa xamóó [yimóó-yi /gaag/] PrepP
 precede

"They went ahead of me."

- (c) Darxos ye male [mê yimòò-li Manuwal]_{PrepP}
 man,
 old

"Darxos is older than Manuel."

- (d) Ye pallege yiree lee [(mê) yimòò-li yilaay]_{PrepP}
 big tree that

"This tree is bigger than that."

- (e) Ye coolopa [yikalaa ye towase]_{NPs} [mê yimòò-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 mê gaag]_{PrepP}
 age

"Ben's age is between Tom's and mine."

- (c) Yiwee gè [lepadpada-li yimà]_{PrepP} yilaa yaramata re
 then, house fm people
 and

ma fadè fulorase mè kumèètiya mè wucu mè xurxuru.
hb plant flower potatoes banana lemon,orange

"And between houses, people plant flowers, potatoes,
 bananas and oranges."

4.7.6.8. luwèlu- "among" presupposes not "dual," but "plural" in the following NP.

E 183 (a) Xo la molo [luwèlu-li malili kalaa]_{PrepP}
 go hide luwél name-of tree

"Go and hide among the 'malil' trees."

(b) Re sa loxo [luwèlu-li yiha-li paaga-li loxo Suutumil]_{PrepP}
 go all dr

"They went among all the houses of Suutumil (a village in Yap)."

(c) [Luwèlu-yire/yiir/] gè sulu-male mè yiree-yire/yiir/
 PrepP three from at

melee re-sukuun.
fm

"Three of them are students."

(d) Yilaa ye mele Xuwam melee ye lèlaaye [mè luwèlu-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 /yiy/]_{PrepP}

"He stays on it (a tree, a boat, or a plane)."

- (b) Yaramata wee ye ma mele [yicuu-li yiyi m̄yi
breadfruit
wee] **PrepP**

"The person used to stay on the breadfruit tree."

- (c) Re sa la kakka logo mogoyo [m̄e 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 /yiyi/] **PrepP**
come dr

"He entered inside."

- (b) Re ma mas̄er̄e [yila-li yima] **PrepP**
sleep house

"They usually sleep inside the house."

- (c) Dare loxo [la-li yalapa laa] **PrepP**
walk way

"Walk away on the pathway."

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 generalization 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 fossilized 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 mé 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)	fétéété	"later"
	lalow	"yesterday"
	musuwee	"long ago"
	walsuu	"tomorrow"
	yig&ad	"when?"
(ii)	talega-li lalow	"day before yesterday"

mèrelaxo-li talega-li lalow	"two days before yesterday"
wòtalega-li lalow	"day after tomorrow"
wòrelaxo-li lalow	"two days after tomorrow"
wòsapolaxo-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 feeefele wee [yigàd]_{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 /yiyi/ [fâtâââ] _{PrepP}
 tell result,
 about
 "I will tell you about it later."
- (e) Re-còò 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 mé 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)	<i>maliyele</i>	"morning"
	<i>palaliyolo</i>	"afternoon"
	<i>faxaafe</i>	"evening"
	<i>bogo</i>	"night"
(ii)	<i>rale</i>	"day"
	<i>raxe</i>	"year"
	<i>yado</i>	"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.

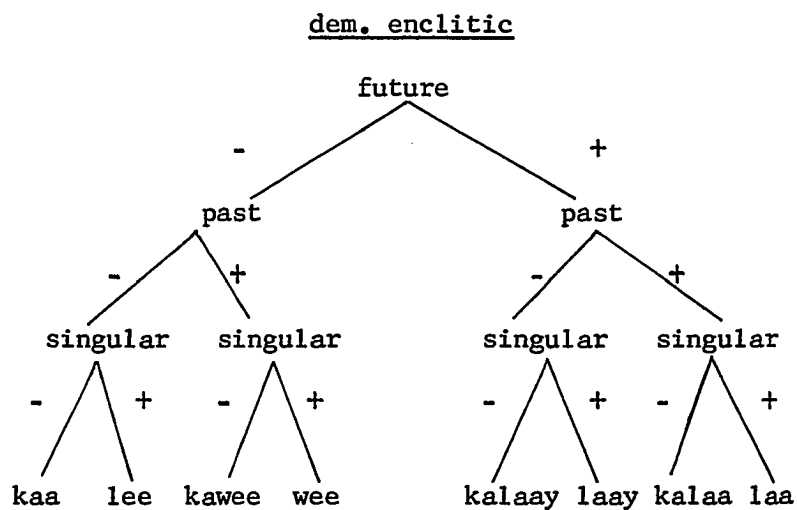


FIGURE 7

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 & future)"
	rale kalaa	"those days (past & 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 & future)"
	raxe kalaa	"those years (past & 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 mé. 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 Ulithi islet)
	Kogkog	"China"	Malilaa	"the Philippines"
	Meriken	"America"	Saapan	"Japan"
	Sayipel	"Saipan"	Wóól	"Guam"
	Yap	"Yap"	Yasor	(a Ulithi islet)
(iii)	yixaa	"here"	:	yikaa "here (pl)"
		(*yixalee)		
	yixaa laa	"there"	:	yikaa laa "there (pl)"
	yixaa laay	"over there"	:	yikaa laay "over there (pl)"
	*yixaa wee		:	*yikaa wee

E 195 (a) Re-cóó kawee re mele la-li yíha lee re sa loxo
 people dm stay in house go

[yiiyaa]_{PrepP} ?
 where

"Where have the people in this house gone?"

(b) Xo sa yafa [leboso wee yi ma tattala p^{awu}-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 TR's. 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 l& be buu doxo l& ye kkela
exist epidemic which come &which strong

l& be ciil mele sulu xaree faay-wo raxe [m&
&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 s&r& 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 TR's 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-prep.) which has preceded the focussed NP under PrepP is dropped except for Prp mé. Compare the following pairs.

E 197 (a) Emp + Re paaleglege yaramata_{NPs} [yiree-yire re-Losiyop]_{PrepP}
big people

[mé yimóó-li faluya kaa téét]_{PrepP}
more-than island dm some

=> Re-Losiyop yilaa re paaleglege yaramata
fm

[yiiyage]_{PrepP} [mé yimóó-li faluya kaa téét]_{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]
buy under

mo-faa]_{PrepP} ?
age, which
era,
time

=> Faa-li mo-faa melee xo sa cuwayi-ya babiyoro lee [yiiyage]_{PrepP}
fm

"During what period of time did you buy this book?"

(c) Emp + Yi subu [mé yixaa]_{PrepP}
born

=> Yixaa melee yi subu [mé yiiyage]_{PrepP}
fm

"I was born here."

By dropping the prepositional elements (e.g. bo and gali) except for mé, it occasionally happens that different deep structure sentences are realized as merged ambiguously on the surface. The pair below illustrates

"This is the path to peace for us in our islands."

4.8. Noun Phrases

4.8.1. Constituent Structure

BR15 NP \longrightarrow NP $\left(\begin{array}{l} \text{con NP} \\ \text{COM} \end{array} \right)$

BR16 NP \longrightarrow (Mn) NM

BR17 NM \longrightarrow Nm (Dm) (Dr) (Int)

BR18 Nm \longrightarrow $\left\{ \begin{array}{l} \text{N} \\ \text{NUC} \\ \text{S} \end{array} \right\}$ (ATT)

BR19 ATT \longrightarrow At \sim NP

BR20 NUC \longrightarrow (Rpt) $\left\{ \begin{array}{l} \text{NuCm} \\ \text{Qnt} \end{array} \right\}$

BR21 NuCm \longrightarrow (Ord) Nus $\left\{ \begin{array}{l} \text{Nucl} \\ \text{Num} \end{array} \right\}$

Lexicon

gè	"and"	+con, [+ //__//]
mé	"and"	+con, [- //__//], [+ NP__NP]
xaree	"or"	+con
te	"not"	+Mn
ciil	"still"	+Mn
wa (M:wol)	"again, also"	+Mn
mooc	"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
ho	"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, +SE, +HR
mami	"our (excl)"	+At, +SE, -HR, -SG
miyi	"your (pl)"	+At, -SE, +HR, +SG
yire	"their"	+At, -SE, -HR, -SG
téét	"some"	+Qnt
suxufed	"a little"	+Qnt
sibis	"a few, some"	+Qnt
ka	"by" (as in <u>two by two</u>) "each"	+Rpt
xa	(ordinalizer)	+Ord, co-occurs with ATT
fedá	"how many, a few"	+Nus, +Q
se	"one"	+Nus
ruwé	"two"	+Nus
sulu	"three"	+Nus
faay	"four"	+Nus
lima	"five"	+Nus
wóle	"six"	+Nus

fi <u>su</u>	"seven"	+Nus
w <u>alu</u>	"eight"	+Nus
di <u>wa</u>	"nine"	+Nus
y <u>exe</u>	"multiple of ten"	+Num
b <u>xuya</u>	"multiple of hundred"	+Num
g <u>arase</u>	"multiple of thousand"	+Num
se <u>le</u>	"multiple of ten thousand"	+N
ppi <u>ya</u>	"multiple of hundred thousand"	+Num
b <u>ogo</u>	"night"	+Nucl
b <u>òdu</u>	"nose"	+Nucl
ca <u>yè</u>	"leaf-like object"	+Nucl
de <u>pi</u>	"flat piece"	+Nucl
fa <u>ce</u>	"trunk, stem (tree)"	+Nucl
fa <u>se</u>	"rounded object"	+Nucl
f <u>òco</u>	"bundles of breadfruit on a stick"	+Nucl
ga <u>fa</u>	"fathom" (two arm length)	+Nucl
ga <u>te</u>	"hole"	+Nucl
g <u>òlo</u>	"bundle of ten"	+Nucl
ma <u>depi</u>	"torn piece"	+Nucl
ma <u>le</u>	"animate object"	+Nucl
ma <u>le</u>	"about ½ inch, finger length"	+Nucl
ma <u>ta</u>	"kind"	+Nucl
m <u>hulu</u>	"short piece of rope or string"	+Nucl
m <u>alo</u>	"length from elbow to finger-tips"	+Nucl
m <u>ucu</u>	"faggot"	+Nucl

paa	"lei-like object"	+Nucl
paca	"tail, foot"	+Nucl
pade	"speech"	+Nucl
pexe	"side, fillet"	+Nucl
pêgê	"home-made cigarette"	+Nucl
pêyé	"drop"	+Nucl
pâwû	"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 [<u>se</u> _____] 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 thumb 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, [+ <u>si</u>] Em
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]
yigãd	"when"	+N, +Q, +time, [+[_]PrepP]
boxata	"home"	+N, +Cl
calu	"water source"	+N, +Cl
cuwu	"ring"	+N, +Cl
déégécé	"uninhabited island"	+N, +Cl
fala	"men's house"	+N, +Cl
faluya	"island"	+N, +Cl
fiyaye-	"wring object"	+N, +Cl
gudé-	"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

sil-	"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-	"loincloth"	+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 & 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 & BR 14). The following examples are given as a recapitulation of the said grammatical relations.

E 201 (a) subject of a predication S

(a) Dempoo lee ye séré bo re buu doxo.
 dm say that come dr

"This dispatch says that they will come."

(a2) Ye xasi-ya téét péraase mada.
 carry some rice cooked

"He took some cooked rice."

(a3) Ye towee yoxo lâ yi be féèru-ya yegaage wee.
 ng possible that do work dm

"I will not do the work again."

(a4) Ye mele sulu-male paabiya mé diwa-male maléxé
 stay 3 Nucl pig & 9 chicken

lâ 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 miri-yire /yiir/.
 follow rear

"Follow them."

(b2) Medaa melee senseye laay ye séré?
 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 male lâ yida-la
 shark kill man who name-his

Coon.

"A shark has killed a man whose name is John."

(c) indirect object

Ye galle-ya se-male paabiya se-wo m̄ayi.
 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) Kiya-li lefeecixi laay cobo prd melee sub
 Cl(mat) girl mat this

"This is that girl's mat."

(e) main verb

(e1) Ye sa yima-mu /xeel/ yima mommaye wee?
 house-your good

"Was that good house yours?"

(e2) Ye be yifaa lapa-yire tarmale 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 k̄ókomo la-li molalulu l̄a ye mmade.
 play in river that shallow

"They are playing in the shallow river."

(f2) Faga gali-yeyi /gaag/ t̄ēt 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 realized 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 (habitulative), 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

BR15 allows an optional recursive expansion of NP. The connectors

(con) gê and xaree are also used to connect S's as noted in BR 1. Mê "and" is a conjunctive with the exclusive purpose of connecting two NP's. Gê and mê are in complementary distribution, since the first occurs between junctures while the second does not, i.e. whenever gê is used a juncture precedes and follows.

If all coordinate noun phrases were derivable from well-formed coordinate sentences generated by BR1 and the following rules by way of conjunction reduction transformations, BR15 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 mê 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 mê raxe-
 age

yi/gaag/.

"Ben's age is between Tom's and mine."

(c) Xa xafedêxê cox mê yiy.
 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 mê re-Metag kawee.
 together

"Yonglab didn't feel good because he and the people
 from Metang had to leave together."

- (e) Male laa gè feefelee laa re be rool buu doxo.
 man woman both, come
 altogether

"The man and the woman both came."

- (f) Xa yegaage fagali mè yaramata laa.
 we work together
 (Pm)

"I and the man work together."

- (g) Yulidiy yilaa malboo sulu-yexe xaree medaa faluya
fm perhaps 30 or what island

pà&cixcixi.
 small

"Ulithi consists of thirty or so small islets."

The above examples constitute the evidence against the hypothesis that all coordinate NP's 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>; xafedéxé "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 S's 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 [gè]_{con} *[yeliwici-li
 sukuun lee ye bisbisi]_S

which violates the co-occurrence restriction indicated above. This

difficulty has led to the incorporation of BR15 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 hypothesized 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 pããcixcixi]_S

[xaree]_{CON}*[Yulidiy yilaa malboo medaa faluya pããcixcixi]_S

This difficulty will be solved by generating sulu-yexe xaree medaa from BR15 since both sulu-yexe and medaa are NP's.

There are some other examples which need brief attention. Examine the following.

E 205 (a) Re ma xacuya-ya xala-li male wee me yiree-li se-wo
 hb take food man from at

mê se-wo wolo.
 turtle

"They would take the man's food from every turtle."

(b) Se-male mê se-male yilaa re paaleglege.
 fm big

"Everybody was very big."

(c) Se-wo fiit yilaa se-yexe mê ruwê-wo yinci.
 10 2

"one foot is twelve inches."

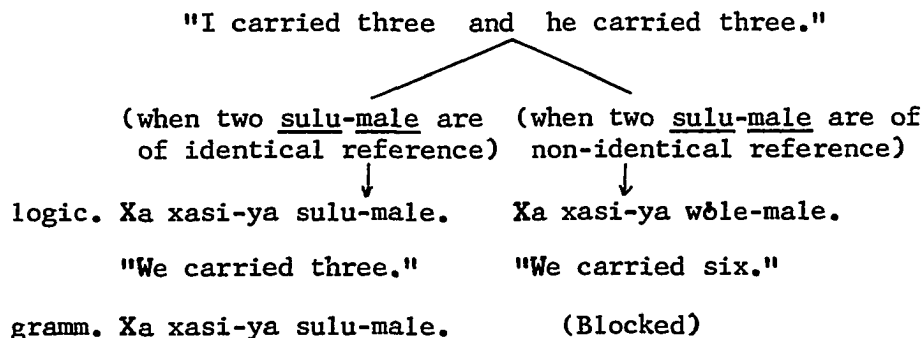
(d) Gaag mê yiy xa xasi-ya sulu-male.

"He and I carried three (animals)."

The above sentences contain numerative compounds. In (a) & (b),

se-wo mé se-wo and se-male mé se-male may be introduced neither by a conjunction reduction T nor by BR15, 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-Nucl₁ mé se-Nucl₁ 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 gé se-wo fiit yilaa ruwé-wo yinci which is grammatical but logically inconsistent. As will be seen under Numerative Compounds, se-yexe mé ruwé in this case is viewed as generated by BR15. 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 gé yiy 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 wóle-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 gé ye xasi-ya sulu-male.



As a result of the postulation of BR15, a great number of sentences have double sources, i.e. BR15 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 mé Coon melee xa sa loxo.
 fm Pm go

but: *Coon mé gaag melee xa sa loxo.

"John and I went."

(b) Yaa-mami gaag mé Coon babiyoro melee.
 Cl(gen.) book this

but: *Yaa-mami Coon mé gaag babiyoro melee.

"This is John's and my book."

(c) Gaag mé yiy melee xa sa kóókomo.
 Yiy mé gaag fm play

"He and I played around."

(d) Se-male yelusu xaree medaa yiy yaramata wee.
 ghost or what, person
 something

but: *Medaa xaree se-male yelusu yiy 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

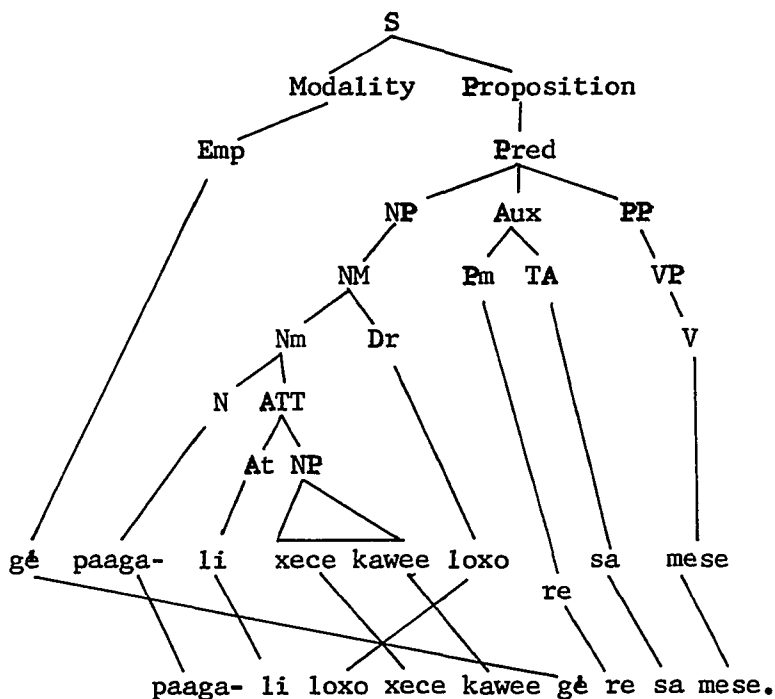
4.8.4.1. Nominal particles are grouped under prenominal Mn and post nominals Dr and Int. Mn is placed one level higher than Dr and Int for

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 BR18). If an attributive construction (ATT) follows the head noun, Dr or Int is obligatorily placed between the head noun followed by At (BR19) 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 gé re sa mese.
 all Dr rat dm fm die

"All those rats died."

deep:



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

E 211 wa

(a) [Wa]_{Mn} [Coon]_{NM} melee ye be buu doxo.

"John also will come."

(b) [Wa]_{Mn} [sulu-male]_{NM} "three more"

E 212 hooc

[Mooc]_{Mn} [yixalaa]_{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 kākāāta-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-cōō 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} [maléxé 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, day thus- pretty
and far
- yaa-la /yiy/ sa mele]_{COM} gè yixalaa ye
her & now
- ttagage yiree-la /yiy/.
ugly for-her
- "And former days she was pretty but now she is ugly."

- (b) Yulidiy yilaa se moda-li faluya tottolo p^{aa}cixcixi
 fm one group island low small
 lagace-li yikuwerèè [mè [tabo]_N[li]_{At}[diye]_{Dr}[Pasifik]_{NP}]_{PrepP}
 side at end west
 [mè 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 [xarèta-[li]_{At}[[faluya]_{Nm}[loxo]_{Dr}]_{NP}]_{NM} [mè
 that that end island
 yifaga-li loxo Caroline Island]_{PrepP}
 north

"It is the northern-most island of the Caroline Islands."

- (d) Xarèta-[li]_{At}[daxe]_{Dr}[pallege]_{NP} yixi wee re sa dorofi-ya
 end big fish dm catch
 mè 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 /yiy/]_{NP}
 that bigness-its
 "That's all."
- (b) [[[Yiy]_{Nm} [cox]_{Int}]_{NM}]_{NP} [yaa-la /yiy/ fisexi-ya /yiy/]_{NP}
 he Cl(gen) burn
 "He burnt himself."
- (c) Yiwee gè Lodow mè Yasor yilaa malboo be [[[[ka sulu-yexe]]
 and perhaps each 30 NUC Nm
 [cox]_{Int}]_{NM}]_{NP} [yaramata]_{NP} [yiyage]_{PrepP}
 person there

"And perhaps there are about thirty people living on each of Lodow and Yasor."

- (d) [Dèelapa]_N[li]_{At}[cox]_{Int}[yima]_{NP} yilaa ye towase.
 most fm destroyed

"Most of the houses were destroyed."

- (e) [Se-male]_{Nm} [ho]_{Int} gè tay malawa.
 one fm ng alive

"No one survived."

- (f) [[Medaa]_{Nm} [ho]_{Int}]_{NM} xo be le wa fèèru-ya?
 what also do

"What are you also going to do?"

- (g) [[Yixalaa]_{Nm} [ho]_{Int}]_{NM} gè ciil mele yiy 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

- [Yiy]_{Nm} [loxo]_{Dr} [cox]_{Int} [yaa-la /yiy/ 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 (BR17) 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 dèdèrè xapala-li melee lawu-[li] [lulapa-^Nli]_{At}
 weave clothes that child At king
 Losiyop]_{NP} [lee]_{Dm}

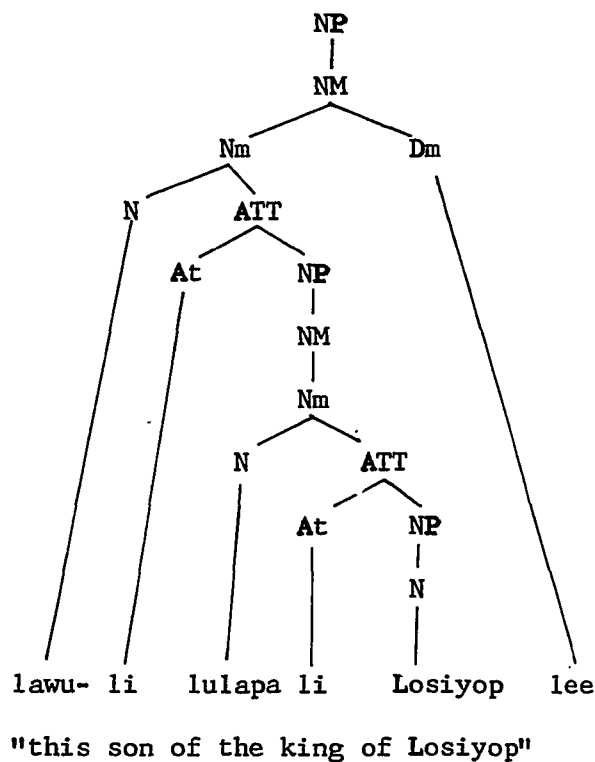
"You (pl)! Weave the clothes of this son of the king
 of Losiyop."

(b) Re sa tafaale doxo [còò]_N-[li]_{At} [fedexe]_{NP} [kawee]_{Dm}
 come- people fight
 back

"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



Secondly, the loose relation between N and the related Dm may be

but: melwee tama-mu

"that father of yours"

Also differing from Dyen's Trukese (1965:21), no sequence of two or more Dm's 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 feefelee wee but not *tama-li feefelee wee we. The Ulithian construction tama-li feefelee wee we occurs only when some embedded sentence follows. Thus we, like lã "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.

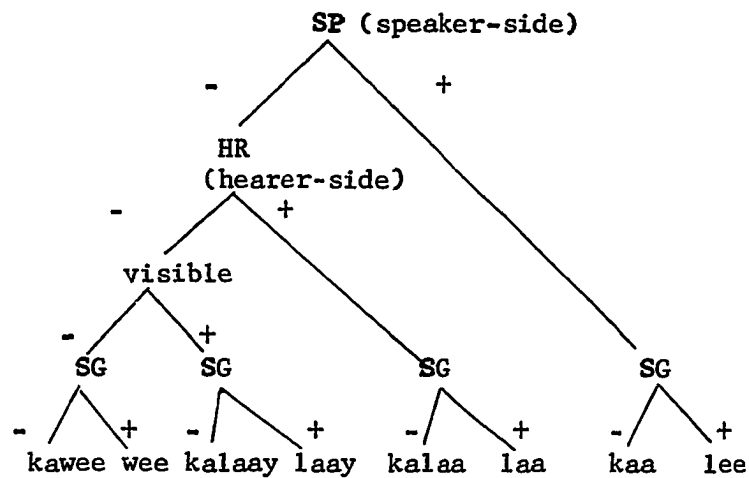


FIGURE 8

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 neutralized in them. TABLE X shows all the features relevant to the differentiation of demonstrative enclitics.

TABLE X

FEATURES OF DEMONSTRATIVE ENCLITICS

	<u>kaa</u>	<u>lee</u>	<u>kawee</u>	<u>wee</u>	<u>kalaay</u>	<u>laay</u>	<u>kalaa</u>	<u>laa</u>	<u>kafaa</u>	<u>faa</u>
Q	-	-	-	-	-	-	-	-	+	+
<u>temporal</u>										
future	-	-	-	-	+	+	+	+	0	0
past	-	-	+	+	-	-	+	+	0	0
<u>deictic</u>										
SP	+	+	-	-	-	-	-	-	0	0
HR	(-)	(-)	-	-	-	-	+	+	0	0
visible	(+)	(+)	-	-	+	+	(+)	(+)	0	0
SG	-	+	-	+	-	+	-	+	-	+

- redundancy rules: 1. $\langle +SP \rangle \longrightarrow \begin{cases} \langle -HR \rangle \\ \langle +visible \rangle \end{cases}$
2. $\langle +HR \rangle \longrightarrow \langle +visible \rangle$

Examples of the demonstrative suffixes are given below.

E 225 (a) Yado [faa] melee ye sa mese?
time Dm fm

"Which time (when) did he die?"

(b) [Yaa]-[li] [[yaramata] [faa]] [[babiyo] [lee]] ?
N At Nm Dm NP NM Dm NP

"Which person's book is this?"

(c) [[Tappe]-[li] At [[pese] Nm [kafaa] Dm NP] NP [melee] NP ?
kind N At dog Nm Dm NP NP NP

"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. BR18 and BR19 define attributive constructions, which are of high frequency of occurrence in Ulithian texts. The reason for assigning At to the following NP (BR19) 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.

BR19 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 l& [se-wo]_{NP} [faluya]_N
fm stay that one island
[-li]_{At}[[[mommaye]_N[-li]_{At}[[[yegaage]_N[-li]_{At}[mogoyo]_{NP}]_{Nm}]_{NP}]_{Nm}]_{NP}
good work food

"Falalap has always been a good island for farming."

- (b) Yiwee g& buraxo wee ye sa tegi-ya Magiyag l& ye
then smoke dm direct which
mele [meldowa-li yiy&ro-li lamo-li Yulidiy]_{PrepP}
stay west south lagoon

"Then the smoke was directed to Mangiyang which is

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 conditions if the NP dominates an N having the feature <+Pro> (TR 21)
- (3) Realization 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. yima-yire pese kaa and yima-li pese kaa "these dogs' house"). This fact supports not only the single node (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 & 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	<u>N</u>	<u>At</u>	<u>NP(a)</u>	<u>NP(b)</u>
	yaa-	li	yeliwici (lee)	babiyoro "(this) boy's book"
	yaa-	la	(*yiy)	babiyoro "his book"
	yaa-yire		yeliwici (kaa)	babiyoro "these boys' book"
	yaa-yire		Coon mē Ben	babiyoro "John's and Ben's book"
	yaa-yire		(yir) mē Ben	babiyoro "Ben's and their book"
	yaa-yire		(*yir)	babiyoro "their book"
	yaa-mami		(gaag) mē Ben	babiyoro "Ben's and my book"
	yaa-mami		(*xaamami)	babiyoro "our (excl) book"
	yaa-miyi		(xeel) mē Ben	babiyoro "Ben's and your book"
	yaa-miyi		(*xaamiyi)	babiyoro "Your (pl) book"
	yaa-	ca	(gaag mē xeel) mē 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 generalization 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 + $\begin{bmatrix} -SP \\ -HR \\ -SG \\ +Ani \end{bmatrix} \Rightarrow$ yire Hence:
 a. *waa-yire yiir
 b. waa-yire tamolo kaa
2. N $\Rightarrow \emptyset$ Hence:
 $\begin{bmatrix} +Pro \\ -Emp \end{bmatrix}$
 a. waa-yire
- E 231 1. At + N \Rightarrow yire Hence:
 $\begin{bmatrix} +Pro, -SP \\ -HR, -SG, +Ani \end{bmatrix}$
 a. waa-yire
2. At + +N \Rightarrow yire Hence:
 $\begin{bmatrix} -Pro \\ -SP, -HR \\ -SG, +Ani \end{bmatrix}$
 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 séséré kofa-li medaa?

"What are you talking about?"

(b2) Kofa-li medaa melee xo séséré?
 result what fm saying

"What are you talking about?"

(b3) Medaa melee xo sēsērē 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 (TR's 11, 13, 21 & 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
 F1 F1 F2 F2

= ⇒ Pm se-wo fiit yela- At pese wee
 $\begin{matrix} F_2 & F_2 & F_1 & F_1 \end{matrix}$

(a1) by PR14 = ⇒ 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
 $\begin{matrix} F_1 & F_1 <+Emp> & F_2 & F_2 \end{matrix}$

= ⇒ pese wee Emp yela- At yiy Pm se-wo fiit
 $\begin{matrix} F_1 & F_1 \Rightarrow F_3 & F_3 & F_2 & F_2 \end{matrix}$

= ⇒ pese wee Emp Pm se-wo fiit yela- At yiy
 $\begin{matrix} F_2 & F_2 & F_3 & F_3 \end{matrix}$

= ⇒ pese wee Emp Pm se-wo fiit yela- At
 $\begin{matrix} F_2 & F_2 & F_3 & F_3 \end{matrix}$

(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 yir
 $\begin{matrix} F_2 & F_2 & F_3 & F_3 \end{matrix}$

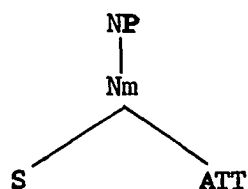
= ⇒ pese kawee Emp Pm se-wo fiit yela- At
 $\begin{matrix} F_2 & F_2 & F_3 & F_3 \end{matrix}$

(c2) = ⇒ Pese kawee yilaa ye se-wo fiit yela-yire.

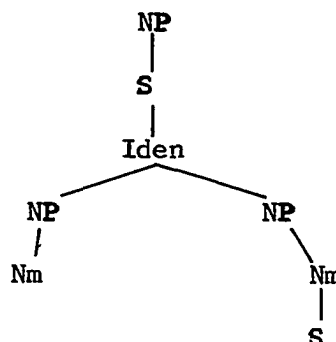
4.8.6.3. Two types are found in which a sentence is nominalized in attributive constructions (BR 18). One of them contains a sentence (S) in the head position of an attributive construction, and the other contains an S in the position appositive to an attributive construction. The first may be called the head-S type, and the second the appositive-S

type. The two types may be derived through base rules, in particular BR18, plus nominalization transformation. That is, in BR18, $Nm \rightarrow S \sim ATT$ is related to the first, and $Nm \rightarrow S$ 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 cap*Pi*-ya yaa-yire kakkataxace soxo-yire
start their throwing Cl -their
xobaye.

"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	"what I see"
		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 behavior 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 S's 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) [[[Weri-ya-yi]_{NP} [pe^[+N]_{+Ani}]_S]_{NP} [melee]_{NP}
[+N]
[+Ani]

"This is the dog that I saw."

(b) [[[Weri-ya-mu]_{NP} [cale]_{NP}]_S]_{NP} [melee]_{NP}
water
[+N]
[-Ani]
[+drink]

"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} [babiyo ro lee]_{NP}
carry book
[+N, -Ani]

"This book is what I've brought."

(e) [Yitoli-ya-yi weya]_{NP} [yixi lee]_{NP}
put dr fish
out [+N
+Ani
+edible
...]

"This fish is what I've taken out."

- (f) [Dorofi-ya-yire]_{NP} [male lee]_{NP}
 catch bird
 [+N
 +Ani
 ...]

"This bird is what I've caught."

- (g) [Kamaaxo-ya-la]_{NP} [feefelee 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] [+N
 +Cl] +Ani]

"This is my (living object) dog."

- (b) [[[Guda-ca]_{NP} [faca]_{NP}]_S]_{NP} [melee]_{NP}
 [+N] [pandanus
 +Cl] +N
 +chew] +chew]

"This is our (incl) (chewing object) pandanus."

- (c) [Lema-mu]_{NP} [cale lee]_{NP}
 [+N] [water
 +Cl] +N
 +drink] +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 satisfactorily accounted for by positing deep structure S's 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 yule-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

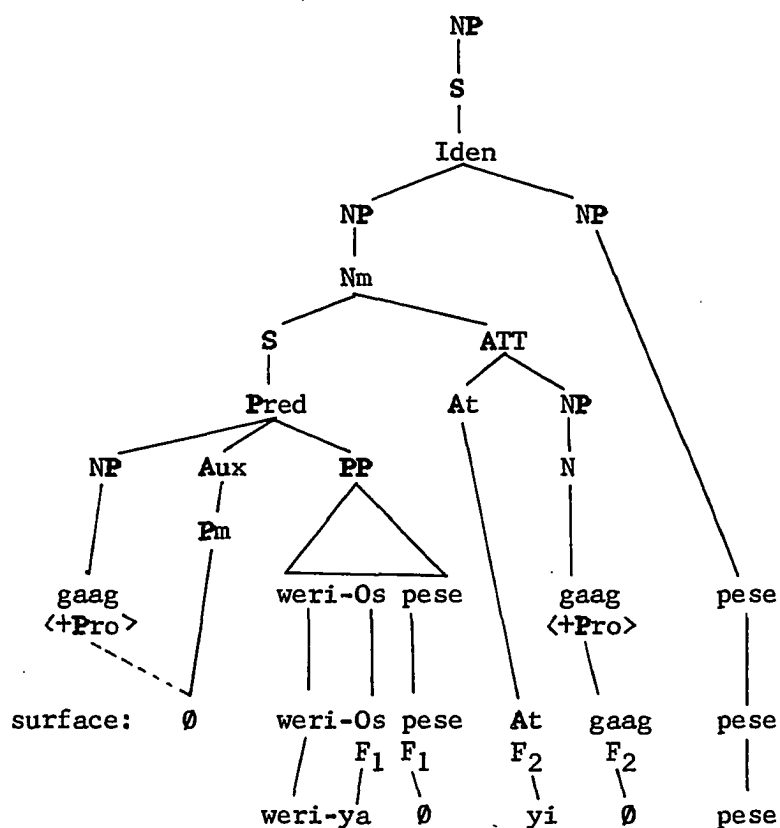
"We (incl) will have the book.")

(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.

E 239



Secondly, there is a small subclass of verbs, both intransitive and transitive, which may not be nominalized 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

cepepe "to kick" : *cepepe-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 referentially to the preceding N. The lack of nominalization 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 BR17 but by BR12, 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 nominalized verb.

- (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 mé
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 [yiyage]_{PrepP}]_S]_{NP}]_{NP}
navigate anaph

"That's the reason for the chief of Ponnapp becoming
a navigator."

- (f) Pese lee yilaa [[yaa]_N [-la]_{At} [/yiy/]_{NP} [[faga gali-
give to
yeyi /gaag/]_S]_{NP}]_{NP}

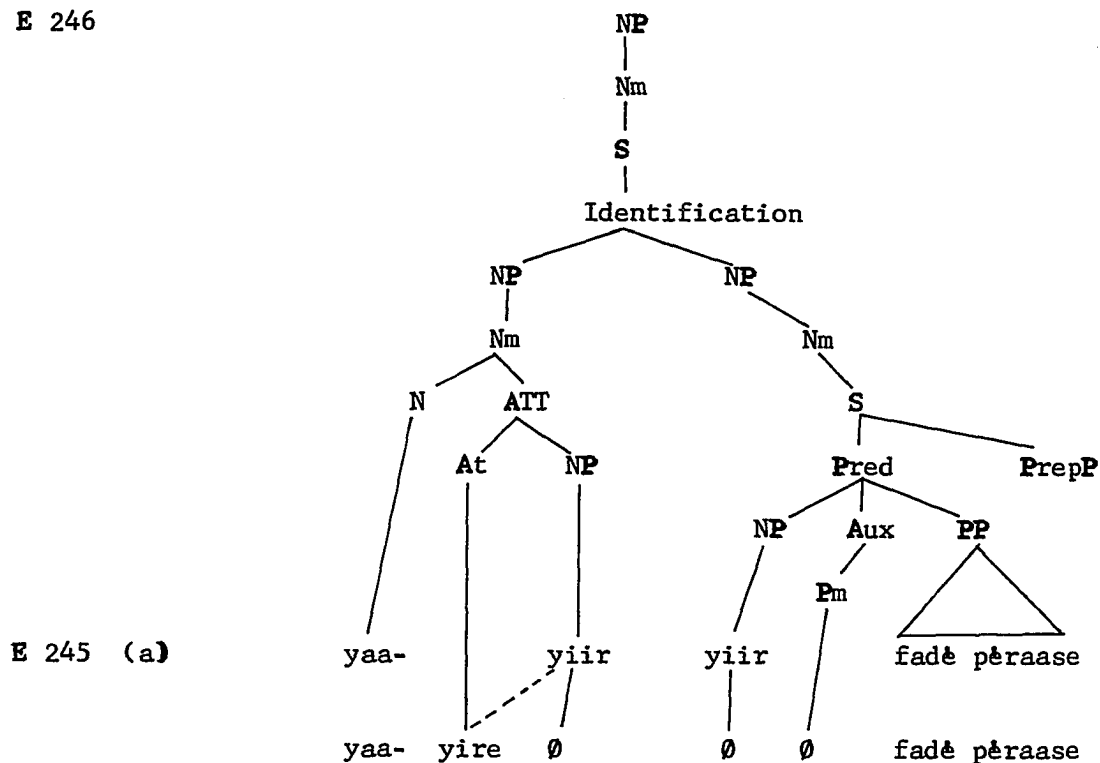
"This dog is what he gave to me."

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 nominalized 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 nominalized 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.

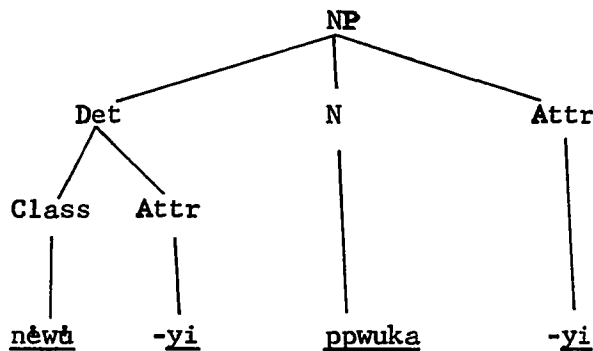
E 246



4.8.6.4. In Trukese, Benton dichotomizes attributions into possessive and referential (1968: Ch 5) and formalizes 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).

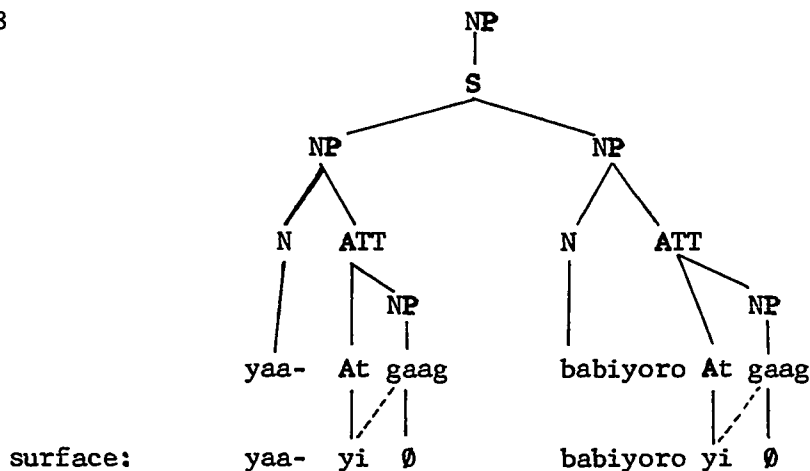
E 247



"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 categorial 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," pawwu "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

	<u>lalow</u> yesterday	<u>medaa</u> what	<u>wòò-</u> on	<u>yixi</u> fish	<u>tèxtaa</u> doctor	<u>yila-</u> inside	<u>yiree-xulè</u> at	<u>bisi-lemá-</u> song	<u>lema-</u> broth	<u>lema-</u> drink
[__ATT]	-	-	+	+	+	+	+	+	+	+
<poss>	(-)	(-)	-	-	-	-	-	-	+	+
<C1>	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	-	+
[__At<+Pro>]	(-)	(-)	-	-	-	+	+	+	(+)	(+)
[<+C1>__]	-	+	-	+	+	-	-	+	(-)	(-)
[__At<+Ani>]	(-)	(-)	-	+	-	+	+	(+)	(+)	(+)

Different kinds of referential meanings are noticeable in the following examples.

E 249 (a) <u>baréxo-yire</u>	"dance for them"
<u>bage-mu</u>	"hostile feeling against you"
yaa-yi <u>xulè-miyi</u>	"my song for you (pl)"
<u>tèxtaa-li male</u>	"animal doctor"
<u>Ben -li yiyaa</u>	"Ben from where?"
yaa-yire male kawee <u>fedexe-li feefele</u>	"those men's fighting over women"
<u>wòò-li fase lee</u>	"on this stone"
<u>yixi-li Yasor</u>	"fish from Yasor"
<u>yila-li yiha</u>	"inside the house"
mè <u>yiree-li mogoyo</u>	"from eating"
<u>pakka-li tamolo</u>	"shooting of the chief"
<u>tagi-yi</u>	"crying for me"
<u>senseye -li yalo-li Meriken</u>	"a teacher of English"

yeliwici-li sukuun "student"

- (b) Ye sa rogrogo kapata-li yixi lã ye coolopa.
 rumor about fish many

"He heard the rumor about the fish which are abundant."

Gaag se-male còò-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 BR18, BR20, and BR21, and for the lexical formatives, to the Lexicon under 4.8.1.

NUC is placed in disjunctive relation with N in BR18, 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} [lã xo dipali-ya]_{COM} yiyee
 which that want this

xaree yilaa?
 or that

"Which is the one that you want, this or that?"

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) téét yiid "some of them"
 (f) ruwé-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 yiid
 (b) se-xaye yiree "a tree"
 (c) téét yaramata "some people"
 (d) ruwé-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

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 struction 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 ruwé-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} [ruwé-male]_{NuCm}]_{VP} [l& 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 come 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 m̄ Yasor yilaa malboo be [ka sulu-yexe]_{NUC}
fm maybe

[cox]_{Int} [yaramata]_{NP} [yiyage]_{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- star fm shine
gether

"Stars were shining three by three."

- (g) Ka [t̄t̄t̄]_{Qnt} pese ḡ 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 BR20. 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): tét "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 analyzed 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. ruwé "two," sulu "three") never replace se-. Besides, the three Qnt members share the unique characteristic that they never occur after ordinalizer (Ord) xa. For these reasons, suxufed and sibis are treated as units, alongside of tét.

Tét and sibis are almost always interchangeable, 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	$\left\{ \begin{array}{l} \text{tét} \\ \text{sibis} \\ \text{suxufed} \end{array} \right\}$	cale	bo lema-yi /gaag/.
	put			as drink-my
			NUC	

"Bring $\left\{ \begin{array}{l} \text{some} \\ \text{some} \\ \text{a little} \end{array} \right\}$ water for me to drink."

(b) [Xa1] $\left\{ \begin{array}{l} \text{tét} \\ \text{sibis} \\ \text{*suxufed} \end{array} \right\}$ cox yaramata melee re be loxo.
Mn
only NUC

"Only a few people will go."

(c) Xasi-ya doxo [suxufed]_{NUC}

"Bring a little here."

(d) Yoor [sibis]_{NUC} [soyuu]_{NP}

"We have some soy sauce."

(e) [Tét]_{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 ordinalizer (+Ord) xa seems to be the same morpheme as the causative xa. Ordinal numbers are expressed by

xa + Nus + $\left\{ \begin{array}{l} \text{Nucl} \\ \text{Num} \end{array} \right\}$ + 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 yiŋa "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 "first person"

but: mataṁṁóó-li yaramata

or: ṁṁóó-li yaramata

In case of composite numerative stems, each stem may be ordinalized (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) mé (xa-)se-male-li yixi "11th fish"
 10 1

(b) (xa-)se-garase(-li) mé (xa-)se-buxuya(-li) mé
 (xa-)sulu-yexe(-li) mé (xa-)ruwé-male-li ṁale
 "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-ruwé-rale-li	yegaage	"Tuesday"
	day		
	(Nucl)		
	xa-sulu-rale-li	yegaage	"Wednesday"
	xa-faay-rale-li	yegaage	"Thursday"
	xa-lima-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 l& 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 ruwè-male yeliwici "two children"
 <+ani> <+ani>

ruwè-male /At/ yeliwici kalaa "two of those children"
 <+ani> <+ani>

xa-ruwè-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, feefe "woman," male "bird," male "man," xatuu "cat," etc.

Except for the most general classifier wo, all the Nucl's 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-cayè "leaf-like object"	
babiyo "torn piece of paper"	cayè "leaf"
fadèlè "paddle"	mage "pandanus mat"
paddulu "coconut palm"	
se-depi "flat piece"	
babiyo "sheet of paper"	coo "slice of copra"
fòtoxuraaf "picture"	fulowaa "piece of bread"
magaaxu "clothes"	màyi "breadfruit"
pexe "wall"	yiree "piece of wood"
se-fase "round object"	
bulaxa "taro"	fase "stone"
kuméètiya "potatoe"	mata "eye"
mmulu "spool of thread"	salapiya "money"
subuyasii "onion"	xarfada "apple"
se-gólo "bundle of ten"	
luu "coconut"	
se-male "animate"	
liyooso "toy"	tarmale "boy"
xece "rat"	yixi "fish"
yuléélapa "old woman"	
se-mata "kind"	
fase "stone"	yíña "house"
yiree "tree"	
se-paa "lei-like object"	
marmara "lei"	yara "a kind of tree"

se-pade "speech"	
kapatapata "speech"	
se-péyé "drop"	
fulorase "flower"	yinkii "ink"
se-raa "branch"	
raa "branch"	
se-rale "day"	
rale "day"	
se-ree "side"	
belaa "shoe"	dudu "breast"
magaaxu "torn piece of clothes"	pawwu "arm"
pèè "feather"	
se-tabo "half piece"	
fulowaa "half a piece of bread"	mmulu "thread"
tale "piece of rope"	xoxolo "string made from coconut leaf"
yawu "string"	
se-wo "general object"	
babiyo "book"	dèrè "woman's lavalava"
ggata "hole"	kaxaro "box"
luu "coconut"	mogoyo "food"
paca "tail"	salapiya "money"
se-womu "bundle"	
luu "coconut"	wucu "banana"
se-xaye "tree-like or book-like object"	
babiyo "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 BR15. 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 mé se-wo babiyoro		"11 books"
se-buxuya mé ruwè-yexe		"120"
se-garase mé se-male yaramata		"1,001 persons"
se-garase mé diwa-buxuya mé wòle yexe mé wálu-wo...		
		"1968..."

4.8.7.9. There is a set of numerals which is not syntactically relevant, i.e. the rapid counting numerals.

yòòd	"one"	wòól	"six"
ruy	"two"	fiis	"seven"
yeel	"three"	wáál	"eight"
faag	"four"	diiw	"nine"
liim	"five"	se-yexe	"ten"

When more than ten objects are counted serially, counting starts again from yòòd.

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 characterized 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 buu doxo yiir senseye kalaa mē Yap.
 come dr they

 (lit. they those teachers are from Yap)
- (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) [[Yiir]_{NP} [senseye kalaa]_{NP}]_S
"They are those teachers."

- (b) [[Yiyy]_{NP} [babiyyoro wee]_{NP}]_S
"It is that book."

- (c) [[Yiir]_{NP} [faluya kawee]_{NP}]_S
"They are those islands."

- (d) [[Yiyy]_{NP} [malaa]_{NP}]_S
"It is that."

- (e) [[Xeel]_{NP} [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 yiiir "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 xààtaa?
 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 [1à [xo mele lagace-li tade melee xo be
 +Pro who near sea fm

dorofi-ya /yiy/]_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 underlined (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 pronominalization. To that extent, pronouns have dual functions, i.e. both as nominals and as substitutes. Observe the following examples.

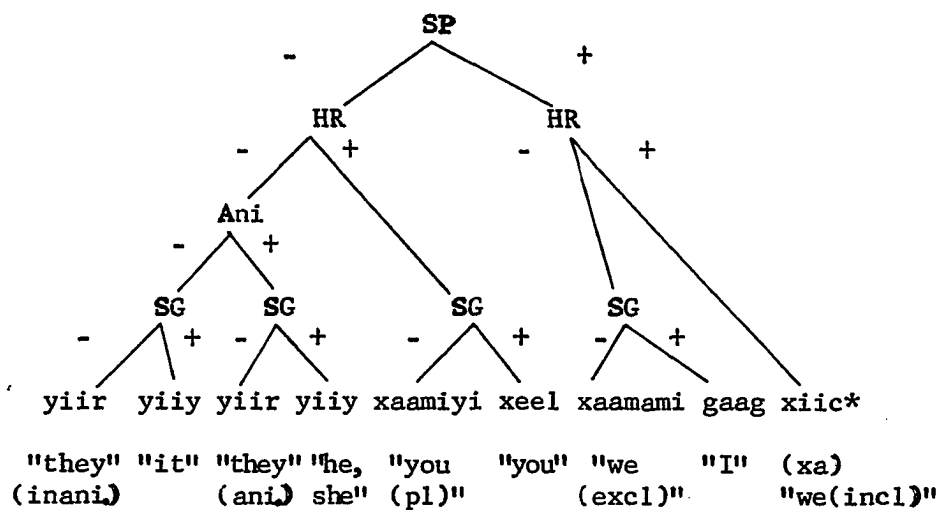
E 272 (a) ¹Mooc xaamami melee xa sa buu doxo.
(nominal)

"Just we (excl) have come."

(b) [Tèxtaa kalaay re mommaye]_{NP} yilaa re sèrè bo
 dm good fm say that
[yìir]_{NP} melee re buu doxo mé Meriken.
<+Pro> fm
(substitute)

"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. $\left[\begin{array}{l} +SP \\ +HR \end{array} \right] \rightarrow \langle -SG \rangle$

2. $\left\{ \begin{array}{l} \langle +SP \rangle \\ \langle +HR \rangle \end{array} \right\} \rightarrow \langle +Ani \rangle$

*xiic and xa occur in free variation before si (Pm), otherwise xiic.

FIGURE 9

FEATURES OF PRONOUNS

Although no formal differentiation is made by $\langle +Ani \rangle$ and $\langle -Ani \rangle$, 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 + $\left\{ \begin{array}{l} yiy \\ yiir \end{array} \right\}$) or -li "of" + inanimate noun but not with -yi "my" (\Leftarrow = At + gaag), -yire "their (ani.)" (\Leftarrow = At + yiir of $\langle +Ani \rangle$ or $\langle +Ani, -SG \rangle$ noun), etc. indicates that in deep structures yicuu- occurs only with a formative having a feature matrix

[+Pro]
[-Ani] , which excludes all the pronouns but yiiy and yiiir 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" (m̩l- + 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 BR17 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 \Leftarrow = m̩l- + lee) or realized as a portmanteau (e.g. yiiyee "this" \Leftarrow = yi- + lee).

The demonstrative elements may be subclassified as below.

(1) demonstratives proper

<u>m̩l-</u> type	<+SG>	<-SG>
	melee "this"	makaa
	malaa "that"	makalaa
	malaay "that(yonder)"	makalaay

	melwee "that(unseen)"	makawe
<u>yi-</u> type	yiiyee "this"	yikaa
	yilaa "that"	yikalaa
	yilaay "that(yonder)"	yikalaay
	yiwee "that(unseen)"	yikawe

(2) prepositional demonstratives

locational	<+SG >	<-SG >
	yixaa "here"	yikaa "here(pl)"
	yixalaa "there"	yikalaa "there(pl)"
	yixalaay "over there"	yikalaay "over there (pl)"
	*yixawe	*yikawe
temporal	yixalaa "today, now"	yixalakaa "nowadays"
	yixawe "before"	yixakawe "old days"

(3) interrogative demonstratives yifaa "which" yikafaa "which (pl)"

4.8.9.2. It seems that the stem of the m̄al- type is related to m̄ale "something" and that of the yi- type to yiiy "it (pronoun)." The meaning difference between the m̄al- 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 m̄al- 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 (al) Medaa melee?

"What's this?" (when the speaker does not know what it is)

"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) Yiyee melee babiyoro [-li]_{At} [melwee]_{NP}

"Here is the book about that."

(c) Ye pallege yiree lee mē yimòò-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}
all day fm

[saga-yire /yiir/]_{NPs}
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.

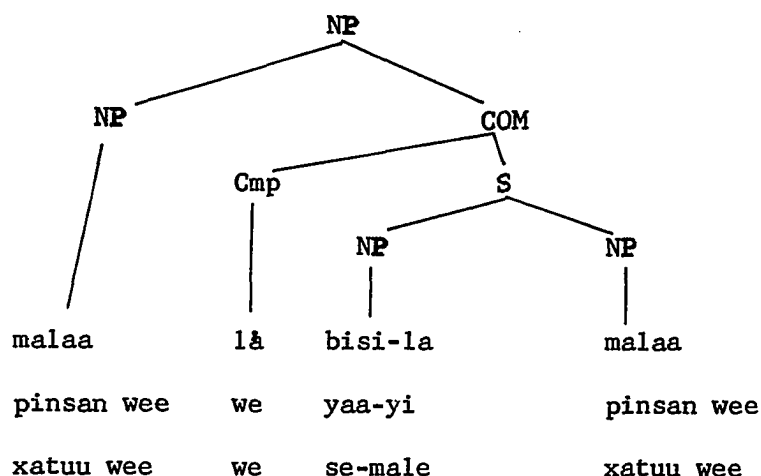
The variety of relations existing between a demonstrative antecedent and

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.

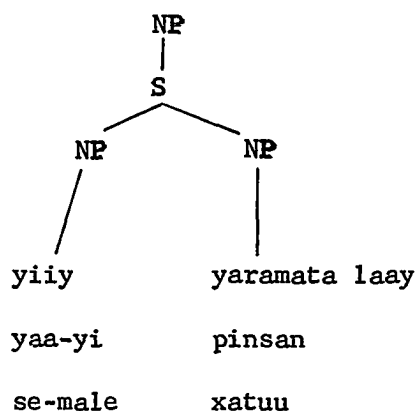
E 281	A	B
	malaa bisi-la	*bisi-la malaa
	*yaramata laay yiiy	yiiy yaramata laay
	pinsan wee yaa-yi	yaa-yi pinsan
	xatuu wee se-male	se-male xatuu

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 nominalized 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 (TR's 13 & 22) and the complementizers (+Cmp) by TR 41. The reason for recognizing 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

NPNP1NP2

(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 favor the deep structure given in E 282 A is E 284 in which a conjunctive lā obligatorily occurs where a demonstrative enclitic is lacking. The fact that lā is elsewhere a conjunctive always followed by a sentence leads to the interpretation that lā sulu-male and lā lawu-yi are embedded sentences.

E 284 Yeliwici lā sulu-male lā lawu-yi yilaa re mele
 child fm stay

yiree-li sukuun.
 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 feefelee wee melee ye sa
 towase. "That grave of the husband of the girl has
 been destroyed,"

has roughly the following deep structure.

"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 lã xala-ca
 carry kinds food good which

mê wôô-li [malaa faluya-yire /yïir/]_{NP}
 from on island

"They brought various good foods for us (incl)
 from that island of theirs."

(e) Ye sa wa loxo yiwee ñiri-la /yïiy/
 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 bôôdu-li xiti wee te yoor se-male lã
 nose octopus who

ye xagi-ya.

"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 \Rightarrow yixaa
2. yixa- \Rightarrow yi- / [k...]_{Dm}
 thus: yixa- + kaa \Rightarrow yikaa
 yixa- + kalaay \Rightarrow 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 \Rightarrow yixalaa
2. yixala- \Rightarrow yixa- / (ka)wee
 thus: e.g. yixala- + wee \Rightarrow 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 l& 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 color-its
 "What is the color of that?"
- (f) [Yifaa]_{NP} [yiiy Darxos]_{NP} ?
 "Where is Dargos?"
- (g) {Yikafaa}
 Yifaa } [yiiir tarmale kawee]_{NP} ?
 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 : babiyyoro faa "which book?"

yikafaa: babyoro 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 yima-li yaramata faa "house of which person?"

 yima-li faluya faa "house of which island?"

but: *yima-li yifaa

Cf. yima-li yiyaa "house of where?"

 *babiyoro-li yifaa

Cf. babyoro-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 nominalization, 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} fm meelee [yida-la]_{NP} "Marda is her name."

(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] [yifaa]_{PP} [yado-li yaa-la riirii melwee mega-mu]_{NP}
 Aux 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 } yiir yaramata kawee?
 { Yikafaa }

"Where are those people?"

Cf. * { Yifaa } yaramata kawee?
 { Yikafaa }

(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 tarhale?

"Where are boys?"

(b) Yifaa yiir tarhale?

"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 yigād "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

	<u>medaa</u>	<u>yiitey</u>	<u>yiiyaa</u>	<u>yig&ad</u>	<u>yifaa & yikafaa</u>
Q	+	+	+	+	+
Dm	-	-	-	-	+
time	-	-	-	+	(<u>+</u>)
place	-	-	+	(-)	(<u>+</u>)
human	-	+	(-)	(-)	(-)

4.8.10.2. Medaa and yiitey constitute the closest related subset from a syntactic point of view. Differing from yig&ad 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 m̄ 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 liliwale]_{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 ruwè-male l̄ 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 ḡ 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_{NP} ?

(lit. shade of what is-this?)

(b) Ye sa masèrè faa-li_{At} [medaa]_{NP} ?
 sleep

"Under what did he sleep?"

(c) Yaa-li_{At} [yiitey]_{NP} salapiya melee xo sa pèrà-ya?
 money fm steal

"Whose money did you steal?"

(d) Yiima-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.

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...yiyage if medaa is focussed.

E 304 (a) Xo tagi [{bo } medaa] PrepP?
cry {yiree-li}

"What do you cry for?"

(b) Medaa melee xo la ssogo gali-yeyi [yiyage] PrepP ?
become mad to-me (anaph)

"Why should you be so angry at me?"

(c) Medaa melee xo buu doxo [yixaa] PrepP [yiyage] PrepP
come here

"What did you come here for?"

For the focus transformation, see TR 11, and for the anaphoric yiyage 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 responses.

E 305 (a) Meta-li yima-li medaa melee?

"In front of what house is this?"

response: yima-li karosiin "house for kerosene
storage"

or: yima-li pese "dog house"

(b) Meta-li yima medaa melee?

"In front of what house is this?"

response: *yiha semen* "house made of cement"

or: *yiha kobraa* "house made of iron"

In E 305 (a), *medaa* refers to purpose or usage of *yiha*, but in E 305 (b) it refers to the substance that *yiha* is made of. Adjectivization 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 [mè yiiyaa]PrepP [yiiy dempoo laa]NPs*
from that dispatch

"Where did the dispatch come from?"

(d) *[Se-male]NUC [re-yiiyaa]NP [fefelee 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 [mé yiiyage]_{PrepP}

"Where did the dog kill the bird?"

4.8.10.4. Yigád "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 yigád, however, anaphoric yiiyage normally does not appear though it is grammatically allowable if mé "from" is not preceding. If mé precedes yigád in the deep structure, yiiyage may not replace yigád if the latter is focussed and preposed. Observe the examples below.

E 308 (a) Yigád melee sa fedexe Tom mé Ben wóó-li Fadalay (yiiyage)?
fight and on

"When did Tom and Ben fight on Fadalay?"

(b) Yigád melee xo loxo yixalaay (yiiyage)?
go there

"When did you go there?"

(c) Xo sa tamaaye yigád?
sick

"When were you sick?"

(d) Ye tamaaye mé yigád?

"Since when has he been sick?"

Cf. *yigád melee ye tamaaye mé yiiyage?

*mé yigád melee ye tamaaye mé yiyage?

but: Mé yigád melee ye tamaaye?

Occurrence of yigád as the NP in an attributive phrase is illustrated below.

E 309 (a) Babiyoro-li yigád melee?

"What age is this book about?"

(b) La-li yigád 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 yigád?
at,in

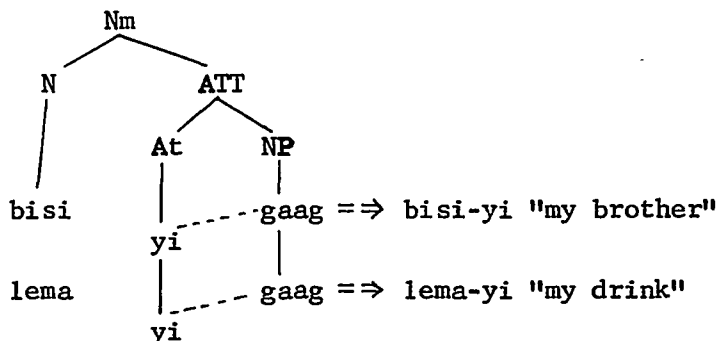
"When (lit. in when) is he coming?"

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 BR18.

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 nominalization, while lema- may. It is clear, however, that the nominalization 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 nominalized structure.

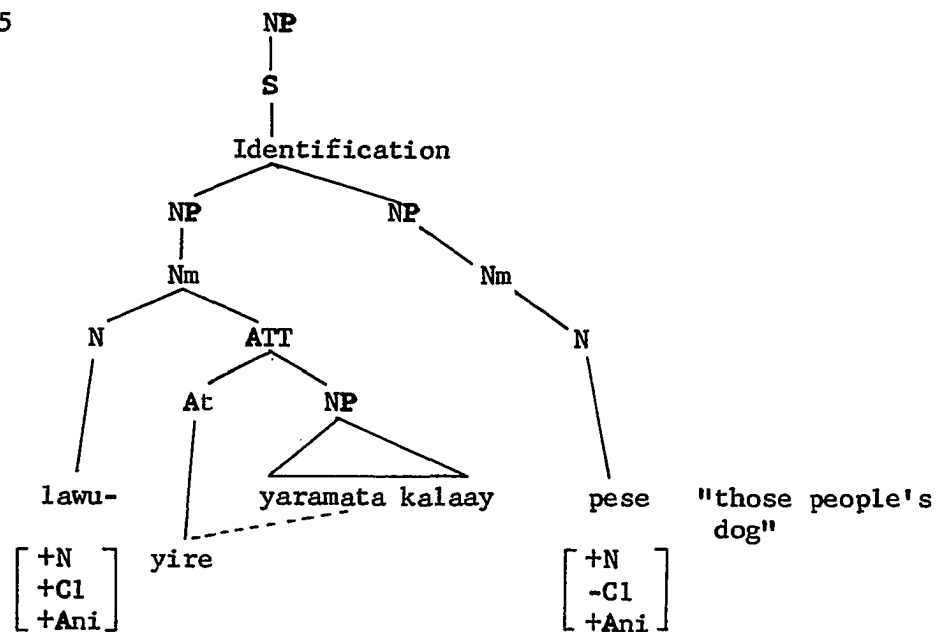
E 313 [Weri-ya-yi pese]_{NP} [melee]_{NP}

"This is the dog I saw."

Thus, all classifiers may be nominalized as in E 312 (b), but not all appositively nominalized forms involve classifiers.

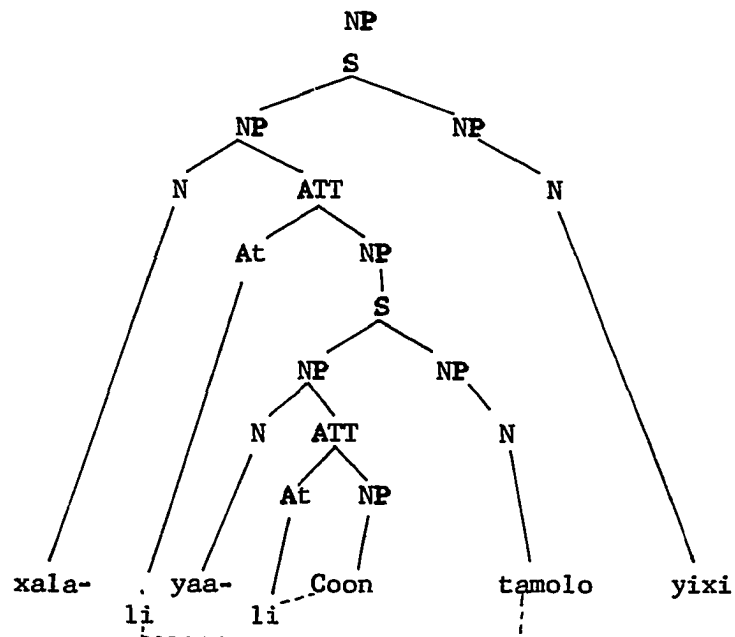
In defining the class of possessive classifiers, E 314 looks like a border-line case.

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) yima-la yima "his house" (lit. his shelter house)
 <+Cl> <-Cl>
- yima-la "his shelter"
 <+Cl>
- (b) 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 honorable 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"
déégécé	"uninhabited island"	: faluya	"island"
fala	"men's house"	: fala	"men's house"
faluya	"island"	: faluya	"island"
fiyaye-	"wrung object"	: coo	"copra"
gudè-	"chewing object"	: faca	"pandanus fruit"
lawu-	"child, property intimately associated with person"		
	fótoxuraaf "photograph"	liyooso	"toy"
	moniyaa "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	"tabacco"
libe	"grave-object:"	: libe	"hole in the ground"
liliya-	"place"	: ciyaa "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," p̄eraase "rice," yixi "fish"	
silā-	"honorific female, mother" : naanaa "mother," repsece "foreigner"	
soxo	"long-slender object"	
	bobawē "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"
	wootobay "scooter"	
xala-	"cooked food"	
	lufidi "poi"	m̄ayi "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"	cayélafaca "hat"
	dewusu "god"	pinsan "pencil"
	sare "big knife"	tontom "harmonica"
	xaluru "umbrella"	xoomaa "rubber"
yifa	"shelter"	
	sukuun "school"	yifa "house"
yulééga	"pillow"	
	fase "stone"	tabo yiree "a piece of wood"
	yulééga "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 characterized 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) xulè-yi "song about me"

yaa-yi xulè "my song"

(c) liluwale-yi "thought concerning me"

yaa-yi liluwale "my thought"

(d) liyooso-yi "statue of me"

{ yaa-yi } liyooso "statue owned by me"
{ lawu-yi }

4.9. Complement Construction (COM)

4.9.1. Constituent Structure

BR 22 COM \longrightarrow Cmp[^]S

Lexicon

bo	"as, that"	+Cmp, [-NP ₁ [___ X NP ₁ Y] _{COM}]
lã	"as, that"	+Cmp
we	"as, that"	+Cmp, +past, -visible

4.9.2. General

BR 9 and BR15 each contain a category COM as in:

BR 9 VP → VB (NP) (COM)

BR15 NP → NP (COM)

BR22 expands COM into a complementizer (Cmp) followed by a sentence (S). The COM in BR 9 may be called the verb phrase complement and that in BR15 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 S's under the domination of NP.

$$\text{NP} \rightarrow \left\{ \begin{array}{l} \text{NP} \quad \text{S} \\ (\text{ART}) \quad \text{N} (\text{S}) \end{array} \right\}$$

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 & 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 lâ ye yaali melee.
 who own this

"The one who owns this will come."

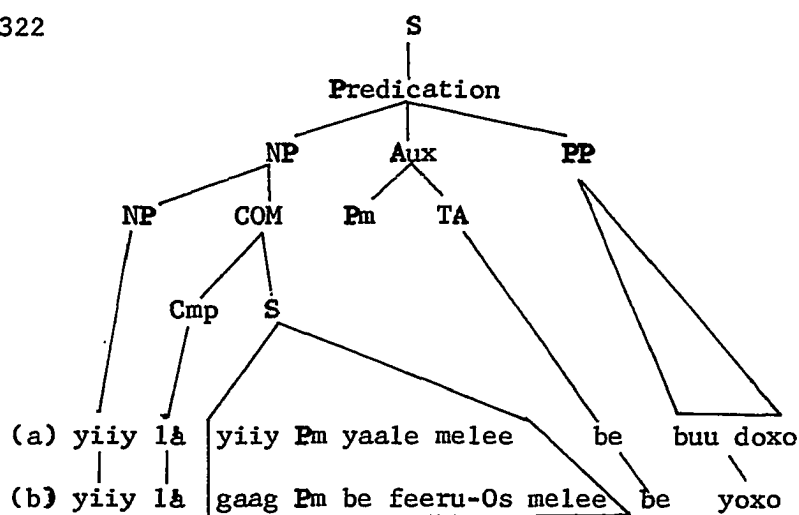
(b) noun phrase "complement"

Ye be yoxo lâ yi be fêêru-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 complementizers in English (e.g. that, for...to, ('s)...ing) through transformation. In Ulithian, however, I have set a lexical category Cmp to introduce complementizers directly from the base, because selection of different complementizers changes the meanings of sentences.

E 323 Lefeecixi kawee re sa fēeru-ya $\left\{ \begin{array}{l} \text{(a) bo} \\ \text{(b) la} \\ \text{(c) we} \end{array} \right\}$ re be le ddare.

"Those girls $\left\{ \begin{array}{l} \text{(a) tried to run(away).} \\ \text{(b) planned to run(away).} \\ \text{(c) were ready to run(away).} \end{array} \right.$ "

The framework of complement constructions for the discussion in this section is summarized as below.

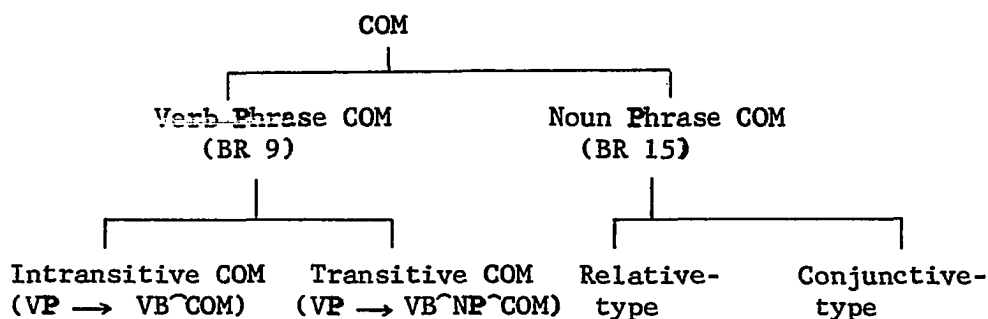


FIGURE 10

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 $Vb^{\wedge}NP^{\wedge}COM$ (see BR 10) actually does not occur-- only $Vb^{\wedge}COM$ does.

4.9.3. Verb Phrase Complements

The two subtypes are intransitive and transitive complements. The former is characterized 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. sère "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 /yiy/ 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 yiyee]_{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 [metéxé]_{PP} [lâ ye be suu logo la-li yalapa wee]_{COM}
 be- stand in
 araid

"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 /yiyi/]_{COM}
 help

"He asked all the people if they could help him."

- (c) Feefele wee ye te [dipali-yVre]_{VB} [re-côô kawee]_{NP} [bo re
 be maxala]_{COM}
 divorce

"The woman did not want these people to get divorced."

- (d) Paaga-li yaramata gè re sa [wewedi-ya]_{VB} [tamolo wee]
 all waiting

[lâ 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 l'ebaaxili 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 reflex 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.

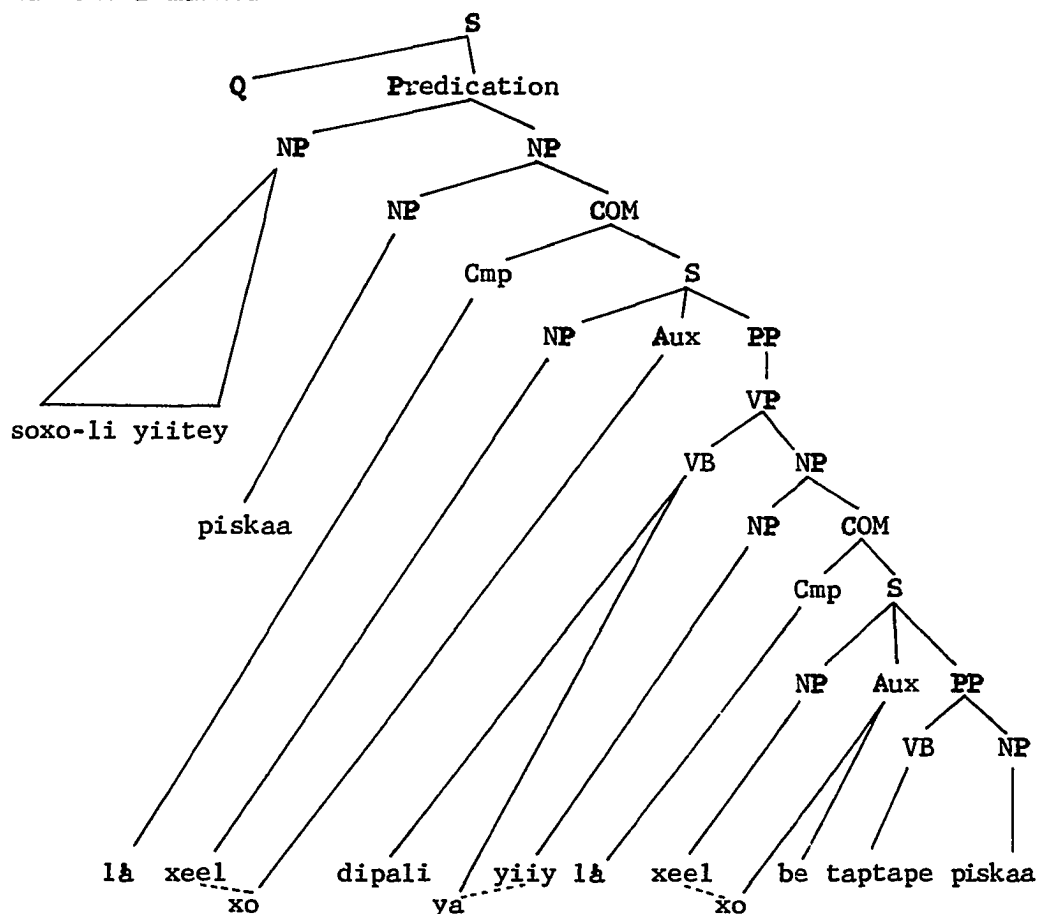
E 326 [Soxo-li yiitey]_{NP} [[piskaa]_{NP} [lâ xo dipali-ya (lâ)
Cl who

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} [babiyofo faa]_{PP} [lã xo dipali-ya]_{COM}]_{NPs?}

"Which book do you want?"

(b) [Yegaage]_{NP} [[lã ye wããrese]_{COM}]_{NPs}

"What is hard is work."

(c) [Ye te]_{Aux} [yoor]_{PP} [mẽ yiree-yire]_{PrepP} [lã yeliwici-li sukuun]_{NPs}

"There is none among them who is a student."

(d) [[Lã male]_{COM}]_{NP} [ye te]_{Aux} [ma mmala]_{PP} [[bo re be te ma
man 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 predictable 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 yiiir (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

- (h) Yi xula-ya l& te yoor [[/yiy/]_{NP} [l& // ye be buu weya
know-it that exist go out

yiyage]_{COM}]_{NP}
there

"I knew that nobody would come out there."

- (i) Xa madare bo xa be meri-ya yiha-li Suutumil bo
disperse so- search because
that

[[/yiy/]_{NP} [l& // ye ta mele yiree-li yiha-la]_{COM}]_{NP} g&
at fm

yiy 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} [[yiha]_{NP} [l& yiha-li Peyacam //]_{COM}]_{NP}
that

"That's Peyacam's house."

- (b) [[Yegaage]_{NP} [l& 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} [l& xala-ca //]_{COM}]_{NP}
carry Cl

"They brought our food."

- (d) Ye sa xacagi-ya [[melwee tama-la]_{NP} [we tamolo-li Lodow//]]
love that COM NP

"She loved her father, the chief of Lodow."

- (e) Buyexaw ye sa la mele wòò-li [[Yoor mè Xilop]_{NP} [we
ruwè-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} [lâ xo yulemi-ya//]_{COM}]_{NP} ?
bigness water drink
"How much water did you drink?"
- (b) Ye coolopa [[bulaxa]_{NP} [lâ re fadêxu-ya//]_{COM}]_{NP} ?
much taro plant
"Did they plant much rice?"
- (c) [Feda-yaye]_{NP} [[pinsan]_{NP} [lâ xo be cuwayi-ya//]_{COM}]_{NP} ?
Nucl buy
"How many pencils are you going to buy?"
- (d) Ye sa [feda-male]_{PP} [[xarexe]_{NP} [lâ 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 male]_{NP}
talk to a man
[lâ Marpaa yida-la //]_{COM}]_{NP}
"Yiduwecox talked to a man whose name is Marpa."
- (b) [Yifaa]_{NP} [mê yiree-li [[babiyo ro kaa]_{NP} [ye cêccaa
red

dɛla-la //]_{COM}] _{NP}] _{PrepP} [/yiy/ lɛ yaa-mu] _{NP} ?
 color

"Which of the red books is yours?"

(5) head of a prepP

E 334 (a) Ye be le la meri-ya [[se-wo leboso] _{NP} [lɛ ye towee
 go search one place ng

ma yoor yixu-li wolo [mɛ yiyage] _{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

[mɛ yiyage] _{PrepP}] _{COM}] _{NP} gɛ ye sa yoxo magmege
 // fm possible success

we yaa-la.

"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)

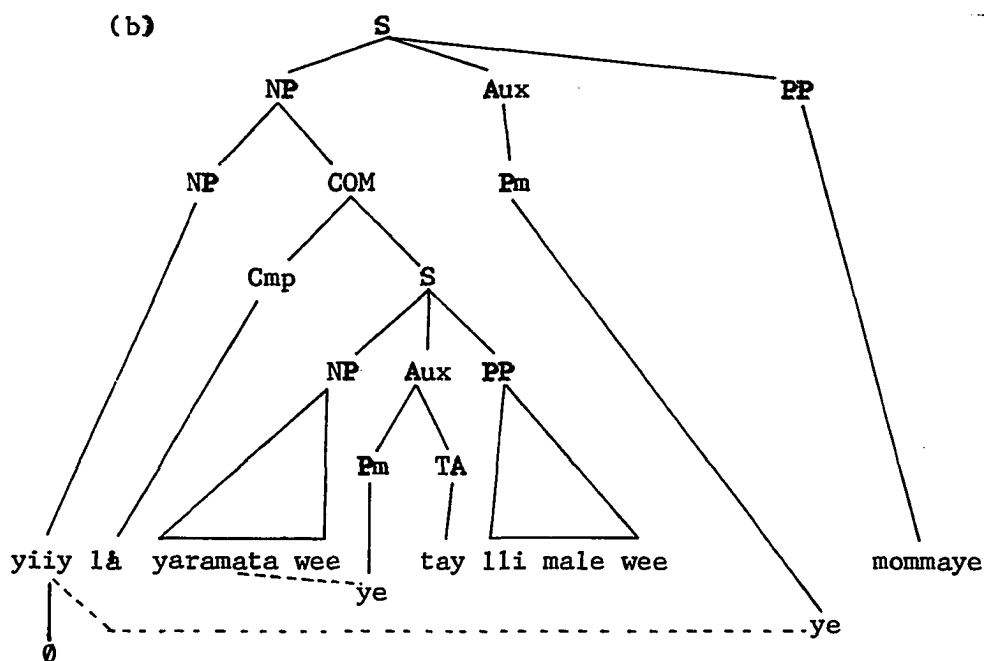
(c) Yi be sɛrɛ logo [[leboso] _{NP} [lɛ yi be mele [yiyange]]]
 say dr // PrepP COM NP

"I will tell in it the place where I am going to stay."

(d) Ye be [yifaa] _{PP}] [yado] _{NP}] [lɛ xo be mele [wɔɔ-li Xuwam] [//]]
 time PrepP PrepP COM

"When will it be the time that you are going to stay
 on Guam?"

"It is good that he didn't kill the bird."



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 mo [faa-li se-wo]_{PrepP} [[/yiyi/] _{NP} lã 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 liliwale]_{NP} lã 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 [[/yiy/]_{NP} [la 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 [[/yiy/]_{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 wóó cox [[/yiy/]_{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 [[/yiy/]_{NP} [bo yi be loxo Saapan]COM]NP
wishing

"I wish I could go to Japan."

- (b) Ye sa dipali-ya [[/yiy/]_{NP} [bo ye be xula-ya kofa-li
want 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 gè re be le
send words all turtle fm

xasi-ya gali Moxmox yimòò-li malaa re be teed lli-ya]COM]NP
 carry to before ng kill

"He ordered all the turtles to be brought to Mogmog before
 they were killed."

(d) Re sa xula-ya [[/yiiy/]NE[bo sa yixu fedexe wee]COM]NP
 over

"They knew that the fighting was over."

(e) Yi te dipali-ya [[/yiiy/]NE[là ye be yule xacii]COM]NP
 drink liquor

"I don't want him to drink liquor."

E 338 attributive

(a) Ye wòò cox fèèru-[li]At[[melwee]NE[xo teed fèèru xala-ca]COM]NP
 similar make, do make

"It seems that you haven't cooked our food."

(b) Ye be yifaa [yado-la [[/yiiy/]NE[là xo be mele wòò-li
 PP time-its stay on

Meriken]COM]NP]NPs

"How long will you be staying in America?"

Cf. Ye be [yifaa]PP[[yado]NE[là xo mele wòò-li Meriken]COM]NPs

"When will you be in America?"

4.9.6. Complementizers

The meaning difference between the complementizers (bo, là, and we) is slight and thus not easy to translate into English. Very often, they may replace each other except in relative type complements. Là occurs most frequently in texts and we the least. Bo never occurs as a

complementizer for a relative clause. We has apparently the same temporal (+past) and spacial (-visible) feature as the demonstrative enclitic (+Dm) wee, while lã 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 lã and bo which have the CV form. The base form differentiation may be supported by their functional difference. Dm wee is realized as [we] by the final vowel dropping rule which does not apply to Cmp we (PR 40).

In relative type complements, lã and we are dropped optionally, in fact preferably, when preceded by a demonstrative enclitic (+Dm).

E 339 (a) Ye sa [xola-yeyi]_{PP}[[babiyo kawe]_{NP}// xo faga]_{COM}]_{NPs}
 arrive-me send

"I received those letters you sent."

(b) [[Yaramata kaa]_{NP}// lawu-yi]_{COM}[lã 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 lã and we do not drop after a demonstrative enclitic, there is a selectional restriction, i.e. we goes with wee and kawee but lã elsewhere.

E 340 Ye mommaye yegaage { l̥a } Yiduwer ye f̥e̥ru-ya.
 we
 lee l̥a
 wee we
 *lee we
 *wee l̥a

"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 l̥a (TR 42). Thus, it may be assumed that only l̥a 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 adjectivization transformations. Three types of adjectival constructions may be distinguished according to which elements in deep

structures have been adjectivized: nominal, verbal, and prepositional. These adjectivized elements will be called adjectivals, which are accordingly of three kinds: noun-derived, verb-derived, and PrepP-derived.

E 342 (a) nominal (noun-derived)

[Epiya fasamaxa]_{NP} [melwee]_{NP}
beach pebble

"That is a pebble beach."

(b) verbal (verb-derived)

[Yima-mu]_{NP} [yima mommaye laay]_{NP} ?
good dm

"Is that good house yours?"

(c) prepositional (PrepP-derived)

[Melwee wob-li Meriken]_{NP} yilaa ye lëllaaye.
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 enclitic, while the PrepP-derived follows it.

4.10.2. Adjectivizations

The three types of adjectival constructions have different derivative sources in deep structures. That is, though they share the highest level structural index $NP^{\wedge}COM$ (BR15) as the source, they are derived from different structures of the COM: the nominal type from

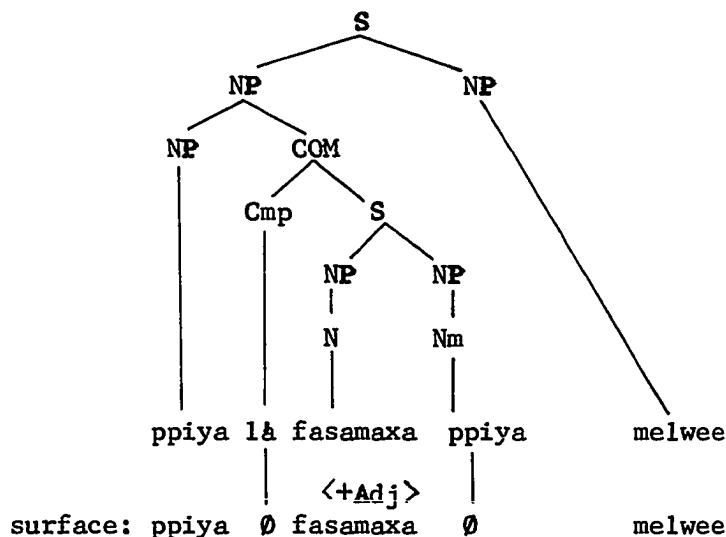
identification, and the verbal and the prepositional types from predication sentences. The verbal type is different from the prepositional type in that the former is related to the verb in the predication and the latter to the prepositional phrase.

Some lexical items, such as complementizers, and the grammatical formative *Pm* are obligatorily dropped in the course of the adjectivization (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 adjectivization TR. First, in the nominal type, the noun to be adjectivized 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 complementizer, *lâ* must be present.

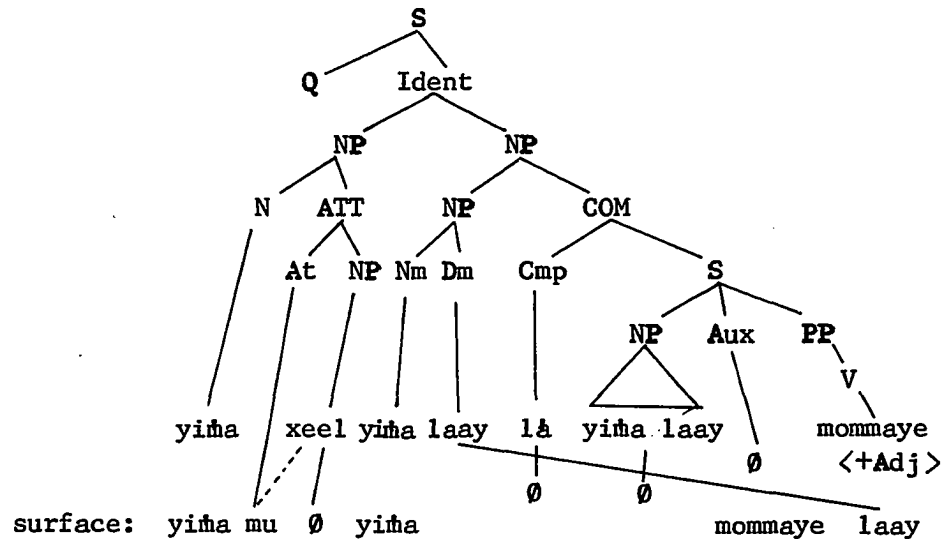
Thus, for example, the deep structure in E 343 underlies the sentence in E 342 (a).

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).

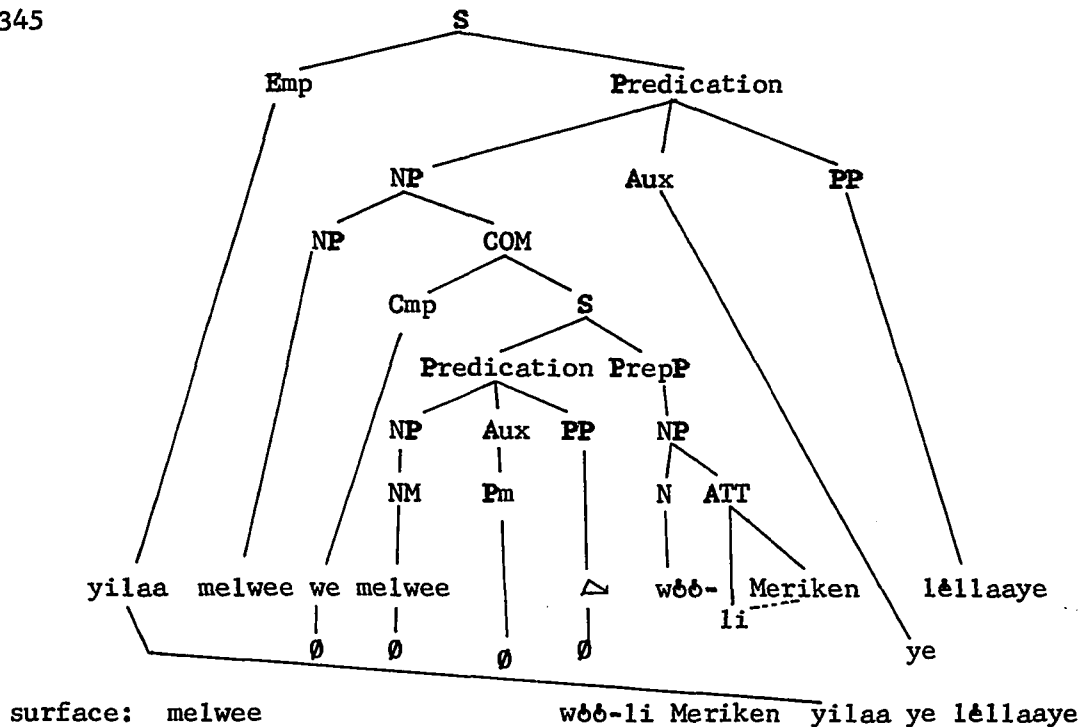
E 344



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 (mé "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).

E 345



A question may be raised as to whether the complementizers once deleted may be uniquely recoverable, i.e. whether it is we or lâ 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 lâ elsewhere. However, predictability is not possible when no Dm is present, since both lâ 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-adjectivized form containing lâ rather than one containing we.

E 346 se-male xatuu mommaye = se-male xatuu lâ 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 adjectivized in which the complementizer is la. 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 male "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 adjectivization 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"	;	yima 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 adjectivized. Compare the following sentences.

- E 348 (a1) [Yiŋa medaa]_{NP} [melee]_{NP}?(adjectival)
 "What kind of house is this?"
 Yiŋa semen. but: *yiŋa pese; *yiŋa pallege
 "Concrete house." *"dog house" "big house"
- (a2) [Yiŋa-li medaa]_{NP} [melee]_{NP}?(attributive)
 "What is this house for?"
 Yiŋa-li pese. but: *yiŋa semen; *yiŋa pallege
 "dog house."
- (b1) [Mogoyo medaa]_{NP} fm melee xo dipali-ya? (adjectival)
 "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 adjectivization 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"	cayélapalapa	"wide"
ccawu	"heavy, expensive"	céccaa	"red"
coolopa	"many, much"	déxédéxé	"crippled"
damumuu	"wild"	faalaxa	"weak, lazy"
fésidala	"famous"	fèèriyexe	"cunning"
fele	"just"	kacapara	"false, lie"
kélòxo	"hungry"	kkaga	"sharp"
kkatéésé	"true"	kkela	"strong"
lapa	"big, old"	lébaaxe	"secret"
lèllaaye	"long"	limismisi	"cunning"
macee	"mistaken"	macéxcéxé	"soft"
mada	"cooked"	malawa	"alive"
malfiliifi	"thin(flat ob.)"	maluluu	"tame, mild"
maséssélé	"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"	mochooco	"busy"
madagadaga	"active"	moocoooco	"short"
mucoccoro	"muddy"	pallege	"big"

"These three good men are their children."

(b) [Te yiy]_{NP} [se-male male 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 kafa] _{NP} [melwee]_{NP?}
 dm
 box big which

"Which big box was that?"

(e) Ye colo [se-wo butawe ttagaréxé [lâ] fasuyo-li Loorob]_{NP}
 hang, one basket handy, simple Cmp weave NP
 throw-on

"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 adjectivization 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 feefe] _{NP} kamudiidiya]_{NP} [yiwee]_{NP}
 pretty that

"She is a pretty girl."

Cf. *Kamudiidiya se-male feefe yiwee.

- (a2) [Te-kamudiidiya]_{COM} se-male feeefele.]_{NP} [yiwee]_{NP}
 very-pretty

"What a pretty girl she is!"

Cf. *Se-male feeefele 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-céccaa "very red"

In the case of non-adjectivized constructions, intensification of a verb with the feature <+Adj> is effected in two ways: (1) By means of xaréta "end" to which the <+Adj> verb is attributive as in the following.

E 351 Ye [xaréta-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 xarêta-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 adjectivization. Thus, for example, E 353 is nearly unacceptable, in favor of E 354.

E 353 (a) (*) [Rase xarêta-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 lã ye xarêta-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 (BR19) in the order of intensifying N + <+Adj> V + head N.

E 355 (a) [Melee]_{NP} yilaa [xarêta-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 male*
 good man

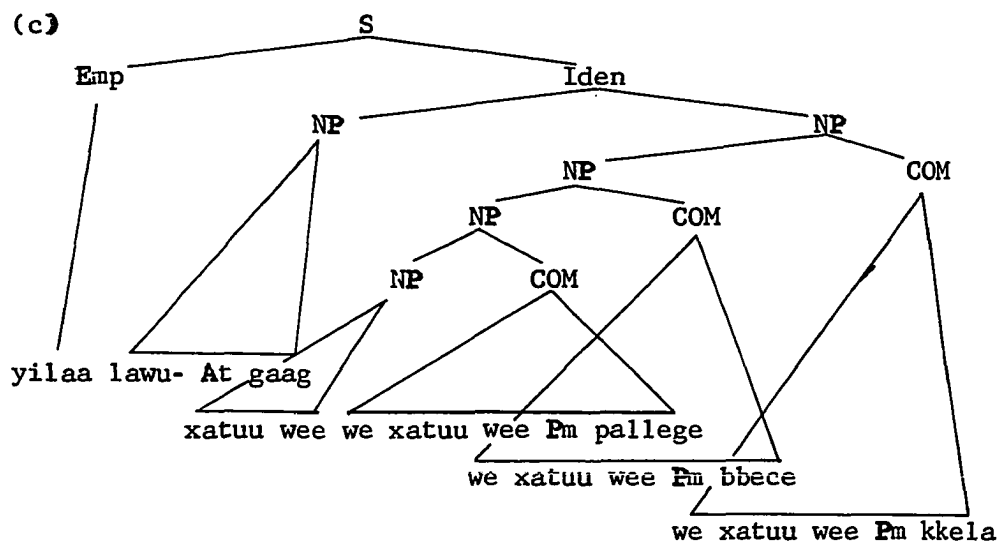
"very good man"

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 adjectivization T (see TR's 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).

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



(f) [Xaréta-li melmélé ye buu doxo]_{NP} [yilaa [[1a-li 1961]]]
 end,last typhoon come that in 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 subsections 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

(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 "futuraity," 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 "futuraity" 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 sa's 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 (Eng. "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 realized 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 realization. Examples of imperative constructions

follow.

E 361 subject with <+HR, +SG >

- (a) Faga melee gali-yVre paaga-yire yeliwici.
 give, this to all children
 send

"Give this to all the children!"

- (b) Xasuu-ya talaga-mu.
 make- your-ear
 stand

"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- you
 hurry

"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 >

- (a) Xa towee yoldi-ya babiyoro kalaa yaa-mu.
 open book dm Cl

"Don't open your (pl) books!"

- (b) Xa teye doxo lã 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} si sa mogoyo.
{Xa }
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) Fêfêêru-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 NP's because of the syntactic disagreement between them and the co-occurring Em's (e.g. xo <+HR> and tama-yi <-HR>). As has been mentioned, the subject NP's 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."

My tê "for a moment" occurs only in imperative constructions as indicated in 4.4.7.

E 367 Tê 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 nonlinguistic action, while an interrogative is concerned mainly with a linguistic response. The syntactic behaviors 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 fêëru medaa.
fm do <+Q>

"He is the one who did something."

- (c) Yi te xula-ya xaree xa sa xââtaa
 know by-any- [+V what-happen]
 chance [+Q]

"I don't know what happened to us (excl)."

- (d) Yi be le sêré cox yida-li feda-wo mē yiyage.
 say just name [+Nus] from there
 [+Q]

"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
 fm maybe 30 or <+Q>

pââcixcixi.
 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 fêêru 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 $\langle +Q \rangle$, each existing independently in deep structures. As will be discussed in the following section, any NP may be either $\langle +Emp \rangle$ or $\langle -Emp \rangle$. Then the following generalization may be made. If **Q** alone or followed by $\langle +Q, -Emp \rangle$ word(s) occurs in the deep structure of a main sentence, it is a yes-no question; if **Q** and a $\langle +Q, +Emp \rangle$ word occur, it is a so-called wh-question; and if only one or more $\langle +Q \rangle$ words appears, it is simply a declarative sentence. Suppose no **Q** is postulated in the categorial component, the formal characterization 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? \rightarrow

[$+Q$]
[-Emp]

"He saw something?"

(b) Ye weri medaa? \rightarrow

[$+Q$]
[+Emp]

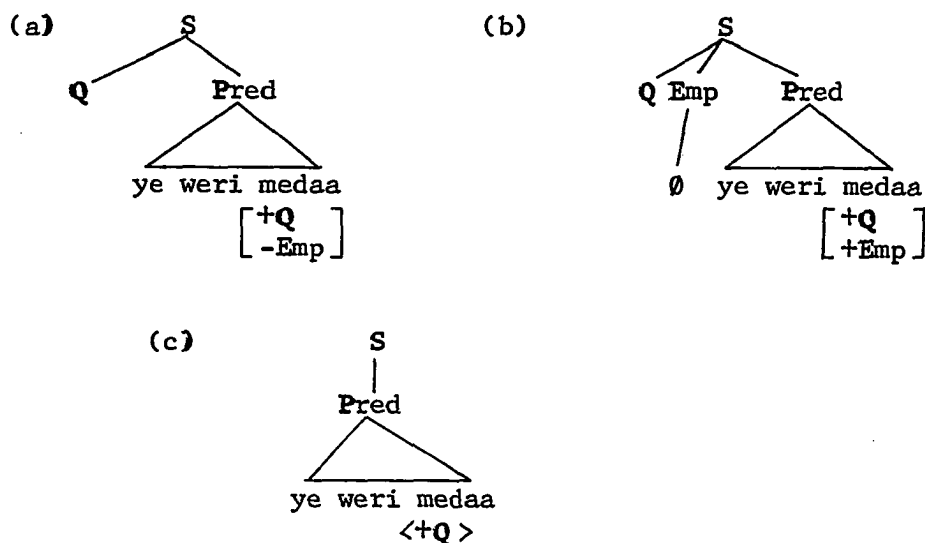
"What did he see?"

(c) Ye weri medaa. \rightarrow

$\langle +Q \rangle$

"He saw something."

Deep structures



Among the interrogative words, yi(ka)faa "which, what, where" and yigad "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 recognized 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
 yigād "when" +N, +time, +Emp
 yiiyaa "where" +N, +place
 feda- "how many" +Nus
 -faa, -kafaa "which" +Dm
 xāātaa "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 TR's 9 and 10.

E 372 (a) Xo be siilaye wōō-li Meriken?
 long

"Are you going to stay long in America?"

(b) Xo sa gucu-li mogoyo-li māyi?
 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 sêrê?

"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) Yigâd melee ye mese tama-mu?

"When did your father die?"

(e) Yu buu doxo mé yiyaa yiy dempoo laa?

"Where did the dispatch come from?"

(f) fedaa-male tarmale kalaa lawu-la?

"How many boys does he have?"

(g) Yado faa melee xo be buu doxo yiyáge walsuu?
time which anaph tomorrow

"What time are you coming tomorrow?"

(h) Xeel xo sa xââtaa?

"What happened to you?"

(i) Ye xââtaa lâ xo la dabe-yeyi?
that become follow-me

"How come you have come to follow me?"

(j) Xo sa fedaa-yeyi?

"What did you do with me?"

(k) Yi be fedaa-xo?

"What shall I do to you?"

(l) Xo be le fedaa-yVre re-côô kawee?

"What will you do with them?"

For details on <+Q> words except for xáataa and fedá, 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 mé "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 realization 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.

<u> </u> <u>melee</u>	(selective)	: "it is <u> </u> that . . ."
<u> </u> <u>yilaa</u>	(topic & contrastive):	"as for <u> </u> "
<u> </u> <u>gé</u>	(topic)	: "as for <u> </u> , <u> </u> also, in case of <u> </u> "
<u> </u> \emptyset	-	: "as for <u> </u> "

Melee and yilaa are apparently demonstratives proper in form, but not in meaning, since they are free from any spatial (deictic) and temporal features. Gé is the same in form as conjunctive gé, 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 gê se-male senseye.

"That woman is also a teacher."

or "In case of that woman, she is a teacher."

(d) Feefele laay \emptyset se-male senseye.

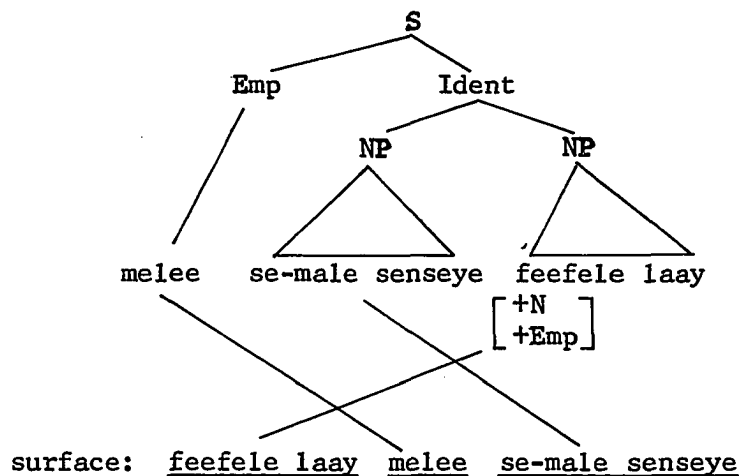
"(As for) that woman, she is a teacher."

(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 $\langle +\text{Emp} \rangle$ to NP, so that only that NP which is specifically marked with $\langle +\text{Emp} \rangle$ may undergo a focus transformation. Thus, for example, E 374 (a) is regarded as having the following deep structure.

E 375



For the transformation process, see TR's 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 NP's occur.

E 376 (a) Fadè-li luu yilaa male melee re ma fèèru-ya.
 planting man hb do

"As for the planting of coconuts, it is men who
 do the job."

(b) Gaag yilaa walsuu melee yi be loxo yiyage lamaliyele.
 tomorrow anaph morning

"As for me, I will go tomorrow morning."

(c) Bogo-yi melee gaag mo melee yi be le loxo.
 tonight rather

"Tonight, I would rather go."

- (d) Paabiya kawee sulu-male gè ruwè-male mè yiree-yire Ø
 pig from

re bii daxe mè Yap.
 come east

"Two out of the three pigs are from Yap."

- (e) Te sèpala-li cox waa melee yìir còò kalaa Ø
 canoe- they people
 house

yaa-yire sèpala kalaa Ø re ma taptape yìiyage.
 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 NP's in a simple way. It is proposed that this problem be solved by recognizing 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 recursively self-expanded in the structural change in a TR to match the number of occurrences of NP's with the <+Emp> feature. Thus observe the following (Cf. TR 11).

E 377 SD: Emp...NP₁...NP₂...NP_n...

<+Emp> <+Emp> <+Emp>

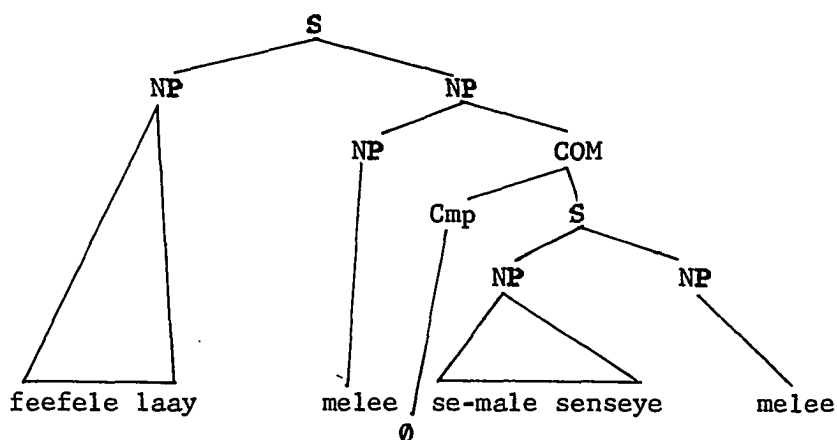
SC: NP₁ +Emp +NP₂ +Emp...NP_n +Emp...

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 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 yima-yi.

[+Dm] fm
[+SP]

"This is my house."

(b) Yilaa melee yima-yi.

[+Dm] fm
[+HR]

"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.

 └───┬───┘ strong & brave
 X

"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."

- (a) Yiyee melee rii-yi //.
this

"This is my wife."

- (b) Yiwee melee tama-yi //.
that

"That (unseen) is my father."

- (c) Libertus melee tɔ senseye //.

"Libertus is not a teacher."

- (d) Gaag melee Yagpaluy //.

"I am Yagpaluy."

E 387

subject of Predication

- (a) Tɛ̀t mɛ̀ yiyage melee // ye totoo gali wɔlwulu
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 pɛ̀ra-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 ruwè-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) Yigàd melee ye be capPi sukuun lee // ?

"When does this school begin?"

- (c) Yado faa melee xo be buu doxo yiyage walsuu?
time which // tomorrow
"What time are you coming tomorrow?"
- (d) Mooc yixalaa melee yi be le loxo //.
just now
"I will go right now."
- (e) Yixalaay melee re tay mele yiyage.
over-there //
"They are not over there."
- (f) Lagace-li tade melee yi be le loxo yiyage.
side sea //
"I will go to the side of the ocean."
- (g) Mè yiyaa melee ye buu doxo kacidoo laa yiyage?
from where movie //
"Where did the movie come from?"
- (h) Medaa melee xo mammale yiyage?
(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 //.

- E 396 head of a prepositional phrase
- (a) Yiyee faluya-li Losiyop yilaa ye mele se-male yaramata
 this, live
 here
- yiiyage lã Loorob malaa yida-la.
 // that that name
- "Here on the island of Losiyop, there lived a
 person whose name was Loorob."
- (b) Yiree-li yiy melmélé lee yilaa ruwé-male yaramata lã
 at typhoon
- re mese yiiyage.
 die //
- "By this typhoon, two persons were killed."
- (c) Yoco wee yixalaay, yoco wee yixalaay yilaa xa be
 reef over-there
- ma la xacawara yixi mē yiiyage.
 go carry //
- "You (pl), go and get fish from the reef over there
 and the reef over there!"
- (3) Gé
- E 397 subject of Identification
- (a) Paaga-yire gé senseye //.
- "As for all of them, they are teachers."
- (b) Xaamami gé yeliwici-li sukuun //.
- "We (excl) are also students."
- E 398 subject of Predication

- (a) Se-male gè // ye sèrè 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 gè xa si sa lli-xica //.
 just kill

"We killed ourselves."

- (c) Te paaga-li fedèxè gè // ye mommaye.
ng all meat good

"Not all meat is good."

E 399 object of the main verb

- (a) Ye sa xula-ya là paaga-li loxo Yulidiy lee gè ye be
 know dm

le boxatali-ya //.

TA 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 gè ye ssèxu gè ye fidii
 island full get-
 together

pallegege-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 gè Buyexaw ye la buu doxo yiyage
 gè paaga-li fèèrmele gè te yoor yiyage.
 then all things there

"When Buyexaw came to the Ulithi Atoll, there was

nothing there."

- (b) Yixalaa mo gê ciil mele // yiy fase laa lécéécé-li yipélé
 now even still stone

laa wób-li Moxmox.

"Even now, there still exists that stone in the middle
 of the menstruation house on Mogmog."

- (c) Lalow gê re sa kagali-yeyi // bo lamaliyele yiree-li
 tell me that morning at

ruwé-wo kulok gê 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 mé yiree-li sukuun mé Xuwam gê
 boundary my leave

gaag mé 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 \emptyset // ye sa molo mē yiree-li mogoyo.

"As for the man, he has finished eating."

E 404 object of the main verb

(a) Re-cóó kawee \emptyset yi sa dabe-ya //.

"I followed those people."

E 405 attributive to an NP

(a) Yiir \emptyset ye kkela yaa-yire // yegaage.
strong work

"They are hard workers."

(b) Lulu wee \emptyset ye tay yoxo yadamaxi-la // yiree-li waxedexe
female ng endurance at manner
possible

kaa yaa-yire gali-ya.
dm to-her

"The girl couldn't endure their conduct toward her."

(c) Yeliwici kawee \emptyset ye te tuxili dipa-yire // yiyage.
not sure feeling

"Those boys are not sure about it."

(d) Makalaa xaamiyi xa sēsērē \emptyset ye te xafedēxē 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

BR23 $\left[\begin{array}{c} Vp \\ Vpr \end{array} \right] \longrightarrow \left[\begin{array}{c} V \\ Vprs \end{array} \right] \text{ (Os)}$

Lexicon

yeyi	"me"	+0s, +SP, +SG
xo	"you"	+0s, -SP, -HR, +SG
ya	"him,her,it"	+0s, -SP, -HR, +SG
xica	"us(incl)"	+0s, +SP, +HR
xomami	"us(excl)"	+0s, +SP, -HR, -SG
xomiyi	"you(pl)"	+0s, -SP, +HR, -SG
yVre	"them"	+0s, -SP, -HR, -SG

For <+Vprs> bases, see 4.7.1.

4.12.2. Object Suffixes (+0s)

As indicated elsewhere, the constituent 0s 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 0s 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 (PR's 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 [1:i-(y)] "kill him"
 [fə:ru-(y)] "make it"

- [fago-(y)] "miss him"
 [xaməɖava-__] "explain it"
 [ɖabwe-(y)] "follow him"

That is, the suffix is realized 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 nominalized before an attributive suffix (TR 36).

- E 407 [1:iyey] "what I killed"
 [1:iyəm^W] "what you killed"
 [1:iyal[>]] "what he killed"
 [1:iyel[◁] se mal[◁]] "what someone killed"
 [1:iyac] "what we (incl) killed"
 [1:iyæ:r] "what they killed"
 [xaməɖavayey] "what I explained"
 [xaməɖavayəm^W] "what you explained"
 [xaməɖavayal[>]] "what he explained"
 [xaməɖavayel[◁] se mal[◁]] "what someone explained"
 [xaməɖavayac] "what we (incl) explained"
 [xaməɖavayæ:r] "what they explained"

...

If in E 407 the forms (e.g. [ye], [yə] and [ya]) between a verb stem (i.e. [1:i], [xaməɖava]) and an attributive suffix (e.g. [y], [m^W], [l[>]], [l[◁]], [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 PR's in 3.6.3.

(2) Exactly the same morphophonemic behavior may be noticed in many words which are not transitive verbs. For example, [falu(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	[faluyey]	"my island"
	[faluyəm ^w]	"your island"
	[faluyal ^{>}]	"his island"
	[faluyel ^{<} se mal ^{<}]	"someone's island"
	[faluyæ:r]	"their island"
	[cuyey]	"my disappearance"
	[cuyəm ^w]	"your disappearance"
	[cuyal ^{>}]	"his disappearance"
	[cuyel ^{<} se mal ^{<}]	"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 [xamədava] as follows.

E 409	lli-ya	"kill him"
	fēēru-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 PR's 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 archi-vowel(V) can account for the lengthening of 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 (PR's in 3.6.3).

Examples in which object suffixes appear follow.

E 410 (a) Re sa weri-yeyi la-li tentoo wee yima-yi.
see in CI

"They saw me in my tent."

(b) Re xafaga-xo loxo.

"They sent you over."

(c) Kassiya-ya Lourdes.

"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.

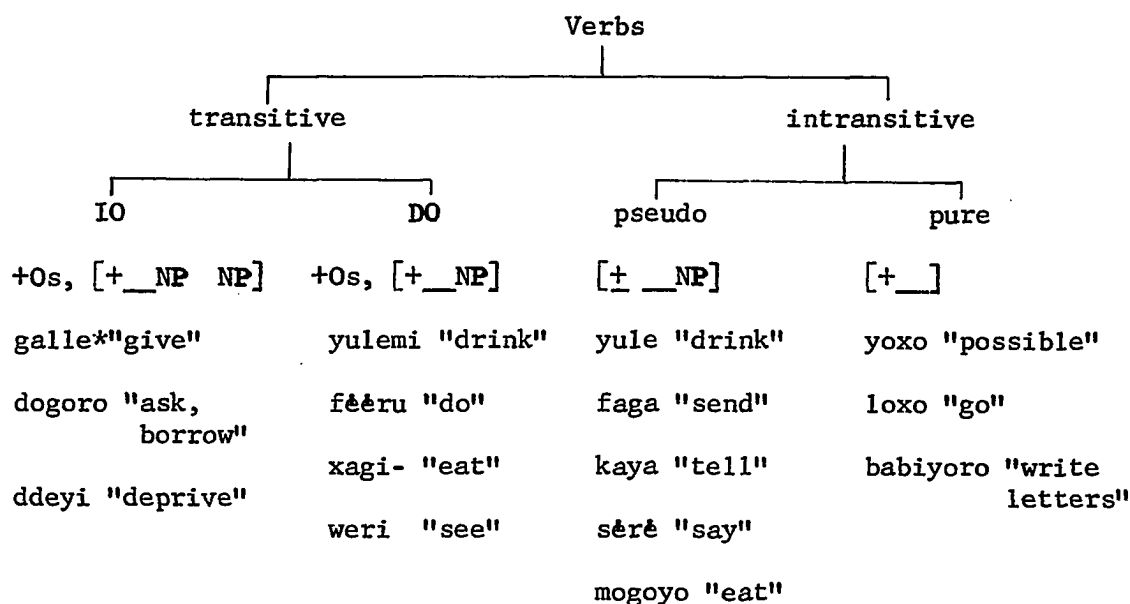
E 411	gali	"to"	gali-yeyi	[ɟ aliyey]	"to me"
			gali-xo	[ɟ aluxU]	"to you"
			gali-ya	[ɟ ali]	"to him"
			gali-xica	[ɟ aligic]	"to us(incl)"
			gali-xomami	[ɟ alugumam]	"to us(excl)"
			gali-xomiyi	[ɟ alugumi]	"to you"
			gali-yVre	[ɟ ali:r]	"to them"

For the syntax of verbal prepositions, see 4.7.5.

Verbs may be classified in many ways according to their morphological formations, subcategorizational 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) NP's, 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.



*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 $\langle +\text{Adj} \rangle$, which is based on the adjectivization 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 mê "from" which occur with verbs having the $\langle +\text{direction} \rangle$ 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"

loxo ffad	"go naked"
mele ffad	"stay idly"
memee 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"
	yima	"house"	:	yimiyima	"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"	:	pallegege	"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"
mehee	"to look for"
paapaa	"to count"
pixpigi	"to hit"
rogrogo	"to hear"
taptape	"to write, use"

Examples of non-reduplicated pseudo-type intransitive verbs follow.

E 420	cagaxe	"to hang"
	dèrè	"to weave"
	ffèsè	"to call"
	lèbaaxe	"to hide"
	lule	"to roll"
	yidi	"to dip"
	yule	"to drink"

Pseudo-type intransitive verbs are characterized by their co-occurrence 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)	fadè	pèraase	"to plant rice"
	fadèxu-ya	pèraase	"to plant the rice"
(b)	mogoyo se-wo	màyi	"to eat a (part of) breadfruit"

xagi-ya se-wo m̄ayi "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 transitivizing 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 yima "I will nail houses." Furthermore, it can be a transitive stem as evidenced in Yi be ciifeli-ya yima 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.

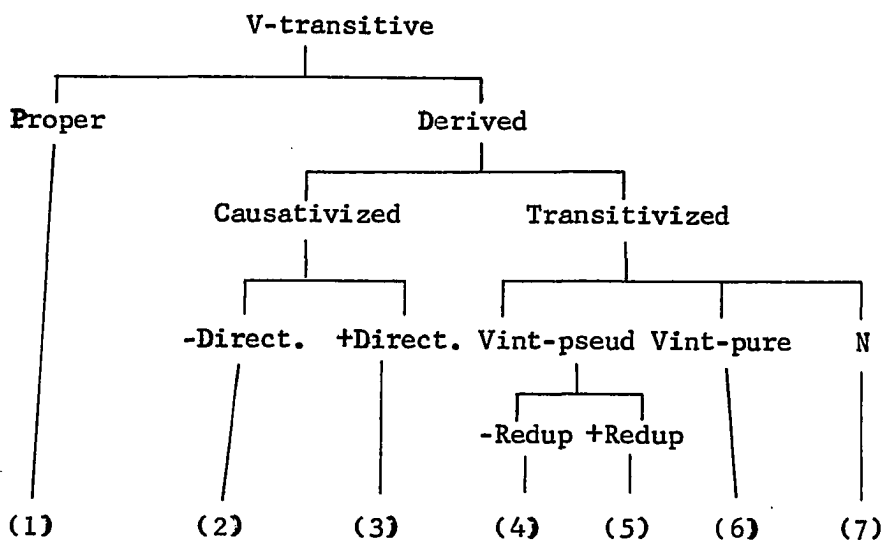


FIGURE 12

A SUBCLASSIFICATION OF TRANSITIVE VERBS

Examples follow.

E 423 (1)

bbulu	"to dirty"	cèlè	"to suspend"
dabe	"to follow"	dogoro	"to ask, borrow"
falixi	"to tread on"	faxo-	"to pity"
fèèru	"to make"	fisexi	"to burn"
galle-	"to give"	kamaaxo-	"to watch"
kassiya	"to ask"	kiliili	"to clear"
lixidi	"to leave off"	lli-	"to kill"
lusu-	"to chew"	mammagi	"to remember"
meri	"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"	xabóle	"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>

xabaréxo	"to let dance"	(← = baréxo "to dance")
xabááye	"to make float"	(← = báá "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")
xaddélé	"to illuminate"	(← = ddélé "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")
xamaséré	"to let sleep"	(← = maséré "to sleep")
xamololo	"to finish"	(← = molo "to be completed")

xaholo	"to hide"	(← = holo "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")
xacalkara-	"to sweeten"	(← = calkara "sweet")
xaccawu-	"to make heavy"	(← = ccawu "heavy")
xacéccali-	"to redden"	(← = cēccaa "red")
xacoolopa-	"to increase"	(← = coolopa "many")
xalapa-	"to increase"	(← = lapa "big, much")
xaléllaye-	"to lengthen"	(← = léllaye "long")
xamalawa-	"to make alive"	(← = malawa "alive")
xammalawa-	"to widen"	(← = mmalawa "wide")
xamommaye-	"to better"	(← = mommaye "good")
xahocococo-	"to shorten"	(← = hocococo "short")

- xapallege- "to make big" (← = pallege "big")
 xaparagara- "to make yellow" (← = paragara "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")
 xasoopéya- "to make clumsy" (← = soopéya "clumsy")
 xataxiyata- "to heighten" (← = taxiyata "high")
 xateffoya- "to make anew" (← = teffoya "new")
 xattiri- "to make fast" (← = ttiri "fast")
 xawâarese- "to make difficult" (← = wâarese "difficult")
 xawecici- "to make small" (← = wecici "small")

E 425 (3)

- xabbulélogo- "to let crouch" (← =bbulélogo "to crouch")
 xaboldaxe- "to begin" (← = boldaxe "to begin")
 xabuudoxo- "to let come" (← = buudoxo "to come")
 xacimadaxe- "to arise" (← = cimadaxe "to rise")
 xadareloxo- "to make walk" (← = dareloxo "to walk")
 xaddaweloxo- "to let go far away"
 (← = ddaweloxo "to go far away")

E 426 (4)

- balesi "to inspect" (← = balle "to inspect")
 cagaxeli "to hang" (← = cagaxe "to hang")
 dêrégú- "to weave" (← = dêré "to weave")

fadéxu "to plant"	(← = fadé "to plant")
fféségu "to call"	(← = ffésé "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)

bàaxi- "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 transitivizers. The division is made into the prefix, suffix, and zero types.

(1) Prefix

Causativizer 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 transitivizing marker but has some meaning, mostly "in favor of" but occasionally "against." Observe the examples in E 430.

E 430 (a) Ye be fawuxili-ya.

"He will row for him."

(b) Yiŋa wee re dimalawaxili-yeyi mē yiyage yilaa
give-birth-to me from there fm

ye mele yixalaa.
stay there

"The house in which I was born is over there."

(c) **Xa be ggataxili-yeyi bo yoor mata-li pãwũ-yi**
 hurry-against exist head hand

lã 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 xabõlexili-ya babiyoro wee yaa-yi we ye sa**
 miss book mine

towase.
 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 transitivizes 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 transitivizing 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")
	wuhulu	"to cook"	(← = wuhu "hearth")
	xamélu	"to whistle to (him)"	(← = xamé "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")
	dérégu-	"to weave"	(← = dère "to weave")
	fféségu	"to call"	(← = ffésé "to call")

(iii) -xi or -xu

E 433	bāxi-	"to float"	(← = bā "to float")
-------	-------	------------	---------------------

cepexi-	"to kick"	(← = cepcepe "to kick")
dixi-	"to sew"	(← = diddi "to sew")
falexu-	"to throw down (coconuts)"	(← = falfale "to throw down")
lewaxi-	"to lick"	(← = lewlewa "to lick; lewa "tongue")
dééxu-	"to climb"	(← = déédéé "to climb")
fadéxu-	"to plant"	(← = fadé "to plant")
ffèrèxu-	"to bind"	(← = ffèrè "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")
	mosodu-	"to cut (rope)"	(← = mosmoso "to cut (rope)")

(v) -si or -su

E 435	besi	"to untie"	(← = bebee "to untie")
	balesi	"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

	meri	"to look for"	(← = memee "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 transitivizing 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 ɛ and ɔ) 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. xéru- "to shave"), -é (e.g. célé- "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"
	câlê (-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) tarmale 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 causativized

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> NP's
 (for additional examples, see the examples in 4.12.4).

- E 441 bebee yawu "to untie lines"
 fadè yiree "to plant trees"
 cêlcêlê 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) còò- "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 nominalizer, 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-molmolo	"hide and seek" (molo "to hide")
	lika-subsubu	"action of tattoo imitation" (subu "to tatoo")

(6) cayé- (a rare prefix indicative of flat surfaces, apparently related to cayé "leaf")

E 447	cayé-cixcixi	"narrow, thin"
	cayé-lapala	"flat"
	cayé-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"
	malelapa	"old man, uncle, grandfather"
	salapa	"excellent" (<u>sa-</u> has no meaning) or "excellent person" (e.g. se-male salapa "an excellent person")
	tamalapa	"true father"
	yuléélapa	"old lady" (<u>yuléé-</u> has no meaning)

(8) la-

This prefix seems to have been derived from the pseudo-prepositional la- "in," but fossilized 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

$$\text{RR 3} \quad \left[\begin{array}{l} +N \\ -\text{Pro} \\ -\text{Dm} \end{array} \right] \longrightarrow \langle \underline{+SG} \rangle$$

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 $\langle \underline{+SG} \rangle$ 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) Yima-li yiitey makalaay?

$$\left[\begin{array}{l} +N, -\text{Pro} \\ +Q, -\text{Dm} \\ +SG \end{array} \right]$$

"Whose (sg.) houses are those?"

(a2) Yima-yire yiitey makalaay?
 $\langle -SG \rangle$

"Whose (pl.) houses are those?"

(b1) Yima-li feeefele malaay.

$$\left[\begin{array}{l} +N, -\text{Pro} \\ -Q, -\text{Dm} \\ +SG \end{array} \right]$$

"That is a girl's house."

(b2) Yima-yire feeefele malaay.
 $\langle -SG \rangle$

"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 recognizable between $\langle +SG \rangle$ in a lexical item, the lexical entries of the nominals with the features $\langle +N \rangle$, $\langle -Pro \rangle$, and $\langle -Dm \rangle$ may be assigned $\langle +SG \rangle$ 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. $\begin{cases} \text{xiic "we (incl)"} \\ \text{xaamami "we (excl)"} \end{cases}$

(b) $[+N, +Dm]$: melee "this" vs. makaa "these"
yiyee "this" vs. yikaa "these"

RR 4 $\left\{ \begin{array}{l} \langle +Cl \rangle \\ \langle +Nuc1 \rangle \\ \langle +Pro \rangle \\ \langle +Dm \rangle \end{array} \right\} \longrightarrow \langle +def \rangle$

RR 4 assigns $\langle +def \rangle$, 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 $\langle +def \rangle$ formatives, because in general the class of transitive verbs occur only with the NP which contains a $\langle +def \rangle$ element.

RR 5 $\left\{ \begin{array}{l} \langle +Cl \rangle \\ \langle +Nuc1 \rangle \\ \langle +Q \rangle \\ \langle +Dm \rangle \end{array} \right\} \longrightarrow [- _ Dm]$

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.

$$\text{RR 6 } \left\{ \begin{array}{l} \langle +\text{Pro} \rangle \\ \langle +\text{Q} \rangle \\ \langle +\text{Dm} \rangle \end{array} \right\} \longrightarrow [- _ \text{ATT}]$$

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.

$$\text{RR 7 } [+ _ \text{NP}_1 \wedge \text{NP}_2] \longrightarrow [+ _ \text{NP}_1]$$

$$\text{RR 8 } [- _ \text{Os}, + _ \text{NP}] \longrightarrow [- _ \text{Os}]$$

$$\text{RR 9 } [+ _ \text{PrepP}^*] \longrightarrow [+ _]$$

*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."

NOTES TO CHAPTER IV

1. The possibility of the treatment of possessive and numerative classifier constructions in Micronesian languages by means of appositive nominalization was originally suggested by Dr. B.W. Bender in a University of Hawaii seminar in the fall of 1968.
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.

CHAPTER V

TRANSFORMATIONAL SUBCOMPONENT

5.1. General

It is assumed that BR's 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) $\left[\begin{array}{l} \text{Pro} \\ \text{SP} \\ \text{HR} \\ \text{Ani} \\ \text{SG} \end{array} \right]$ 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 PR14.

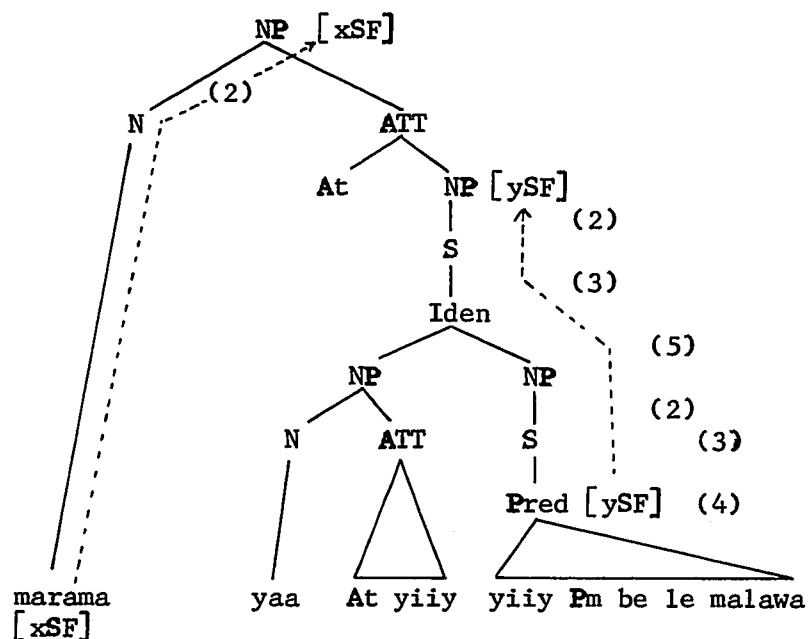
- (2) $\text{NP} \longrightarrow [\text{xSF}] / [\text{x} \left\{ \begin{array}{l} \text{N} \\ \text{NUC} \\ \text{S} \end{array} \right\} \text{Y}]_{\text{NP}}$
 $[\text{xSF}]$

$$(3) \quad S \longrightarrow [xSF] / [X \begin{array}{l} \{ \text{Pred} \} \\ \{ \text{Iden} \} \\ [xSF] \end{array} Y] \quad S$$

$$(4) \quad \text{Pred} \longrightarrow \begin{bmatrix} -\text{Pro} \\ -\text{SP} \\ -\text{HR} \\ -\text{Ani} \\ +\text{SG} \end{bmatrix}$$

$$(5) \quad \text{Iden} \longrightarrow [xSF] / [NP \overset{\sim}{NP}]_{[xSF]} \text{Iden}$$

Conventions (2) - (5) are adopted to assign syntactic features to NP's appearing in certain rules where the NP's 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!"

$$\begin{bmatrix} \text{gaag} \\ +\text{Pro} \\ +\text{SP} \\ -\text{HR} \\ +\text{Ani} \\ +\text{SG} \end{bmatrix} \cup \begin{bmatrix} \text{yiiy} \\ +\text{Pro} \\ -\text{SP} \\ -\text{HR} \\ +\text{Ani} \\ +\text{SG} \end{bmatrix} = \begin{bmatrix} +\text{Pro} \\ +\text{SP} \\ -\text{HR} \\ +\text{Ani} \\ +\text{SG} \end{bmatrix}$$

The resulting matrix is the same as that of xaamami "we(excl)." Thus the P_m occurring with gaag mē yiyi "I and he" will copy the union of the two feature matrices (see TR 1), and PR 14 will realize this union as xa, as in the case of the P_m 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, P_m , 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 (PR14), 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 P_m feature copying

$$\begin{array}{cccccc}
 \text{SD:} & \text{X} & \text{NP}_1 & \left[\begin{array}{c} \left\{ \begin{array}{l} \{m\acute{e}\} \\ \{g\acute{e}\} \end{array} \right\} & \text{NP}_2 & \text{P}_m & \text{Y} \\ \left[xSF \right] & & \left[ySF \right] & & & & \\ & & \text{xaree} & & & & \\ & & \text{con} & & & & \\ & & * & & & & \\ & & & & & & \end{array} \right]_a & & & & & & \\
 & 1 & 2 & 3 & 4 & 5 & & & & & & & \\
 \\
 \text{SC:} & 1, & [2 \ 3] & , & 4 + \left[\begin{array}{c} [xSF \ U \ ySF] \\ [ySF] \\ [xSF] \end{array} \right]_a , & 5
 \end{array}$$

TR 1 states that a P_m 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.

- E 455 (a) [pese wee]_{NP} Pm sa mese
 dog dm TA die
 $\left[\begin{array}{l} +N \\ -Pro \\ -SP \\ -HR \\ +Ani \\ +SG \end{array} \right]_{qSF}$ "That dog died."
- = ⇒ pese wee Pm sa mese
 $qSF \left[\begin{array}{l} -Pro \\ -SP \\ -HR \\ +Ani \\ +SG \end{array} \right]$
- (b) [gaag] [mè] [Ben] Pm loxo
 I NP₁ con NP₂ go
 $\left[\begin{array}{l} +N \\ +Pro \\ +SP \\ +SG \end{array} \right]_{qSF}$ $\left[\begin{array}{l} +N \\ -Pro \\ -SP \\ -HR \\ +Ani \\ +SG \end{array} \right]_{rSF}$ "Ben and I went."
- = ⇒ gaag mè Ben Pm loxo
 $qSF \quad rSF \left[\begin{array}{l} +Pro \\ +SP \\ -HR \\ -SG \end{array} \right]$
- (c) [gaag] [xaree] [bisi- At gaag] Pm be loxo
 NP₁ con brother NP₂ TA
 $\left[\begin{array}{l} +N \\ +Pro \\ +SP \\ +SG \end{array} \right]_{qSF}$ $\left[\begin{array}{l} +N \\ -Pro \\ -SP \\ -HR \\ +SG \end{array} \right]_{rSF}$
 "My brother and I will go."
 = ⇒ gaag xaree bisi- At gaag Pm be loxo
 $qSF \quad rSF \left[\begin{array}{l} -Pro \\ -SP \\ -HR \\ +SG \end{array} \right]$

TR 2 At & Os feature copying

SD: X { At } Z where Y ≠ NP
 { Os Y } [xSF]
 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 [yulêêlapa kaa]_{NP} [paabiya kawee]_{NP}
 Cl old woman dm pig dm
 [+N]
 [-Pro]
 [+Ani]
 [-SG]]_{qSF}
 = ⇒ lawu- At yulêêlapa kaa paabiya kawee
 [-Pro]
 [+Ani]]_{qSF}
 [-SG]

"Those pigs belong to these old women."

(b) xeel Pm mogoyo xala- At yiyi mē xala- At
 you eat food he
 cila At yiyi
 friend
 [+N]]_{qSF} [+N]
 [-Pro]]_{rSF} [-Pro]
 [+Ani]]_{rSF} [-SP]
 [+SG]]_{rSF} [-HR]
 [+SG]]_{rSF} [+Ani]
 [+SG]]_{rSF} [+SG]]_{qSF}

"You ate his and his friend's food."

= ⇒ xeel Pm mogoyo xala- At yiyi mē xala- At
 [+Pro]]_{qSF} [-Pro]
 [-SP]]_{qSF} [+Ani]
 [-HR]]_{qSF} [+SG]
 [+Ani]]_{qSF}
 [+SG]]_{qSF}
 cila At yiyi
 rSF [-Pro]
 [+Ani]]_{qSF}
 [+SG]

(c) raxe At Ben Pm melee lepada- At raxe At
 $\left[\begin{array}{c} +N \\ -Pro \\ +Ani \\ +SG \end{array} \right]_{qSF}$ $\left[\begin{array}{c} +N \\ -Pro \\ -Ani \\ +SG \end{array} \right]_{rSF}$

Tom mē feefelee wee
 woman
 $\left[\begin{array}{c} +N \\ -Pro \\ +Ani \\ +SG \end{array} \right]_{sSF}$

"Ben's age is between Tom and the woman."

= ⇒ raxe At Ben Pm melee lepada- At raxe At
 $\left[\begin{array}{c} -Pro \\ +Ani \\ +SG \end{array} \right]_{qSF}$ $\left[\begin{array}{c} -Pro \\ -Ani \\ +SG \end{array} \right]_{rSF}$ $\left[\begin{array}{c} -Pro \\ +Ani \\ +SG \end{array} \right]$

Tom mē feefelee wee
 sSF

(d) yiy Pm sa lli Os xatuu kalaa
 kill cat
 $\left[\begin{array}{c} +N \\ -Pro \\ +Ani \\ -SG \end{array} \right]_{qSF}$

"He killed the cats."

(e) yiy Pm sa xaxusu gali Os paddêlê kawee
 set fire to dry wood
 $\left[\begin{array}{c} +N \\ -Pro \\ -Ani \\ -SG \end{array} \right]_{qSF}$

"He set fire to the dead trees."

= ⇒ yiy Pm sa xaxusu gali Os paddêlê kawee
 $\left[\begin{array}{c} -Pro \\ -Ani \\ -SG \end{array} \right]_{qSF}$

r--

For more discussions on TR 3, see 4.2.3.

E 457 (a) [gaag Pm loxo] gè [ruwè-male Pm loxo]
 $\left[\begin{array}{c} +\text{Pro} \\ +\text{SP} \\ -\text{HR} \\ +\text{SG} \end{array} \right]_S$ 2 Nucl $\left[\begin{array}{c} -\text{Pro} \\ +\text{Ani} \\ -\text{SG} \end{array} \right]_S$

= ⇒ gaag mè ruwè-male Pm loxo
 $\left[\begin{array}{c} +\text{Pro} \\ +\text{SP} \\ -\text{HR} \\ -\text{SG} \end{array} \right]$

"I and two persons went."

(b) [yaa- At gaag babiyoro melee] gè [yaa- At Coon
 Cl (gen) $\left[\begin{array}{c} +\text{Pro} \\ +\text{SP} \\ -\text{HR} \\ +\text{SG} \end{array} \right]$ book this $\left[\begin{array}{c} -\text{Pro} \\ +\text{Ani} \\ +\text{SG} \end{array} \right]$

babiyoro melee]_S

= ⇒ yaa- At gaag mè Coon babiyoro melee
 $\left[\begin{array}{c} +\text{Pro} \\ +\text{SP} \\ -\text{HR} \\ -\text{SG} \end{array} \right]$

"This is my and John's book."

(c) [gaag Pm mogoyo yixi]_S gè [gaag Pm mogoyo kumèètiya]_S
 fish potato

= ⇒ gaag Pm mogoyo yixi mè kumèètiya

"I ate fish and sweet potatoes."

(d) [yiiy Pm weri Os gaag]_S gè [yiiy Pm weri Os
 see $\left[\begin{array}{c} +\text{Pro} \\ +\text{SP} \\ -\text{HR} \\ +\text{SG} \end{array} \right]$ $\left[\begin{array}{c} -\text{Pro} \\ +\text{Ani} \\ +\text{SG} \end{array} \right]$

yaramata wee]_S
 person dm

Plural Pm, At, and Os elements are optionally changed to singular if the associated NP has the feature <-Pro>. Thus, re = ⇒ ye;
 <+Pm>
 yire = ⇒ li; and yVre = ⇒ ya.
 <+At> <+Os>

E 458 (a) yiy Pm xataxace Os xece kawee [we]_{Cmp} xece kawee
 throw rat dm <-Pro>

Pm malawa
 [-Pro] alive
 [+Ani]
 [-SG]

= ⇒ yiy Pm xataxace Os xece kawee we xece kawee
 OP

Pm malawa
 [-Pro]
 [+Ani]
 [+SG]

"He threw those rats which were alive."

(b) senseye kalaa Pm buu logo mē Meriken
 teacher dm come dr
 <-Pro> [-Pro]
 [+Ani]
 [-SG]

= ⇒ senseye kalaa Pm buu logo mē Meriken
 OP [-Pro]
 [+Ani]
 [+SG]

"Those teachers came from America."

(c) gaag Pm fisexi Os pese kawee
 burn [-Pro] <-Pro>
 [+Ani]
 [-SG]

= ⇒ gaag Pm fisexi Os pese kawee
 OP [-Pro]
 [+Ani]
 [+SG]

"I burnt those dogs."

(d) $yima \text{ At } pese \text{ kaa} \Rightarrow yima \text{ At } pese \text{ kaa}$
 $\begin{bmatrix} -Pro \\ +Ani \\ -SG \end{bmatrix} \langle -Pro \rangle \quad OP \quad \begin{bmatrix} -Pro \\ +Ani \\ +SG \end{bmatrix}$

"house of these dogs"

Cf. surface structures + PR14:

$yima-yire \text{ pese } kaa \Rightarrow yima-li \text{ pese } kaa$
 OP

TR 5 P_m feature shift (OP)

SD: X NP_1 $[xaree]_{con}$ NP_2 P_m Y
 $\begin{Bmatrix} \langle +SP \rangle \\ \langle +HR \rangle \\ \langle -SG \rangle \end{Bmatrix}$
 1 2 3 4 5 6

SC: 1, 2, 3, 4, $\begin{bmatrix} \langle +SP \rangle \\ \langle +HR \rangle \\ \langle -SG \rangle \end{bmatrix}_2 \xRightarrow{P_m} \begin{bmatrix} \langle -SP \rangle \\ \langle -HR \rangle \\ \langle +SG \rangle \end{bmatrix}_2$, 6

By TR 1, P_m copies the feature composition of the second NP if two NP's are connected by xaree "or." TR5 states that different feature compositions of the P_m occurring in the above SD may optionally be neutralized into a matrix corresponding to 3rd per. sg. For example,

$\begin{Bmatrix} yi \\ re \\ xa \\ \dots \end{Bmatrix} \Rightarrow ye$
 $\langle +P_m \rangle$

$\langle +P_m \rangle$

E 459 (a) Emp xeel xaree gaag P_m sa loxo

$\begin{bmatrix} +Pro \\ +SP \\ -HR \\ +SG \end{bmatrix}$

= ⇒ Emp xeel xaree gaag Pm sa loxo
 OP $\begin{bmatrix} +\text{Pro} \\ -\text{SP} \\ -\text{HR} \\ +\text{SG} \end{bmatrix}$

"You or I went."

(b) gaag xaree xeel xaree yiid Pm weri baarkoo
 $\begin{bmatrix} +\text{Pro} \\ -\text{SG} \\ -\text{HR} \\ -\text{SG} \end{bmatrix}$

= ⇒ gaag xaree xeel xaree yiid Pm weri baarkoo
 OP $\begin{bmatrix} +\text{Pro} \\ -\text{SG} \\ -\text{HR} \\ +\text{SG} \end{bmatrix}$

"I or you or they saw the ship."

TR 6 reduction of sentences involving PrepP's, Mn's, Mv's and
 Int's (OP)

SD: $X_1 \begin{bmatrix} \text{PrepP}_1 \\ \text{Mn}_1 \\ \text{Mv}_1 \\ \text{Int}_1 \end{bmatrix}_a Y_1 [\text{g}^{\acute{e}}]_{\text{con}} X_1 \begin{bmatrix} \text{PrepP}_2 \\ \text{Mn}_2 \\ \text{Mv}_2 \\ \text{Int}_2 \end{bmatrix}_a Y_1$
 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]_{PrepP}]_S g^é [gaag Pm be
 <+loc>

loxo [xaleesiyaa]_{PrepP}S
 <+loc>

= ⇒ [gaag Pm be loxo sukuun mē 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 (E98) and

4.7.2. Examples follow.

E 461 (a) yiy Pm sube [mē yixaa]_{PrepP} gē yiy Pm sube
 born from here

[raxe wee]_{PrepP}
 year dm

= ⇒ yiy Pm sube [mē yixaa raxe wee]_{PrepP}

"He was born here last year."

(b) Imp xeel Pm kamaaxo Os yiy [cox]_{Int} gē Imp
 watch just

xeel Pm kamaaxo Os yiy [mo]_{Int}
 for a
 while

= ⇒ Imp xeel Pm kamaaxo Os yiy [cox mo]_{Int}

"Look at it just for a while!"

TR 7 TA juxtaposition

SD: X₁ TA Y₁ [gē] X₁ TA Y₁
 <-neg> con <+neg>

1 2 3 4 5 6 7

SC: 1, 2, 6, 3

conditions: 1. [SD]_S gē S
 <+subord>

2. NP Gmp [SD]_S

See 4.4.6 (E 76 - E 81) for related discussions.

E 462 (a) [mogoyo Pm be lapa gè mogoyo Pm te lapa]_S gè
 food TA TA <+subord>
 <-neg> <+neg>
 "will" "not"

Emp gaag Pm towee mogoyo
 won't eat

= ⇒ mogoyo Pm be te lapa gè Emp gaag Pm towee
 mogoyo

"If the food is not enough, I won't eat."

(b) yiy [lâ] [yiy Pm be xagi Os yiy gè yiy Pm
 eat

te xagi Os yiy]_S Pm te ma mmale
 hb possible

= ⇒ yiy lâ yiy Pm be te xagi Os yiy Pm te ma
 mmale

"He must eat it."

Cf. surface structure + PR14:

Ye te ma mmale lâ 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]_{Pred₁} [ye]_{con} [yiir Pm loxo]_{Pred₁} [capPi]_{trunk}
 go and so

At se-xaye xiliyewa]_{PrepP}
 1 Nucl a kind
 "tree" of tree

= ⇒ yiir Pm loxo ye capPi At se- xaye xiliyewa

SD: X Q Emp [Y W Z]_{Proposition} R
 [+Q]
 [+Emp]
 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) teacher [+Q]
 [+Emp]

= ⇒ Emp yaa- At xeel senseye yiitey
 [+Q]
 [+Emp]

"Who is your teacher?"

(b) Q Emp yiiy Pm weri medaa
 see [+Q]
 [+Emp]

= ⇒ Emp yiiy Pm weri medaa
 [+Q]
 [+Emp]

"What did he see?"

TR 11 focus

SD: X Emp Y NP₁ Z NP₂ ... R NP_n W where n ≠ 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 2's
 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 mé yiy]NP Pm sa loxo
<+Emp>

= ⇒ gaag mé yiy Emp gaag mé yiy Pm sa loxo

"I and he went."

Cf. a surface structure + PR 14:

Gaag mé yiy melee xa sa loxo.
fm

(b) Emp yaa-[At [re-cóó kalaay]NP]ATT xabolbolo Pm
C1 people lamp
<+Emp>

[teffoya]PP
new

= ⇒ re-cóó kalaay Emp yaa- At re-cóó kalaay

xabolbolo Pm teffoya

"As for the people, their lamp is new."

Cf. a surface structure + PR14:

Re-cóó kalaay \emptyset ye teffoya yaa-yire xabolbolo.
fm

(c) Emp Bexaw Pm sa +Prog mogoyo [wolo cox]NP
<+Emp> <+Emp>just
turtle

[wóó At yaa- At yiy [[yiy Pm <+Prog> mele]S]NP]PrepP
on live

= ⇒ Bexaw Emp wolo cox Emp Bexaw Pm sa <+Prog>

mogoyo wolo cox wóó At yaa- At yiy yiy Pm

<+Prog> mele

"As for Bexaw, it was just turtles that she was
eating for her living."

Cf. a surface structure + PR14 + PR's 15 & 16:

Bexaw \emptyset wolo cox melee ye sa mommogoyo wòò-li
 fm fm
 yaa-la 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 NP₁ Y]_S { At } NP₁ Z
 { ATT }
 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
 NP₁ see dog NP₁

= ⇒ [Pm weri Os pese wee]_S [At gaag] [pese wee]
 NP₁ ATT NP₁

= ⇒ [Pm weri Os]_S At gaag pese wee

"That dog is what I saw."

Cf. surface structure + PR14:

Weri-ya-yi pese wee.

TR 13 pronominalization

SD: X NP₁ Y NP₁ Z

 { [xSF] } { [xSF] }

 { <xtime> } { <xtime> }

 1 2 3 4 5

SC: 1, 2, 3, ANAPH, 5

 { [xSF] }

 { <xtime> }

where ANAPH = $\begin{cases} \text{yiiyage} / \left\{ \begin{array}{l} ((\text{Prp})(\text{N} \sim \text{At})) \\ \text{<xtime>} \quad \left[\begin{array}{l} \text{<+loc>} \\ (\text{Vpr}) \end{array} \right] \text{---} \end{array} \right. \text{PrepP} \\ \text{<+Pro> U[xSF]} \quad \text{otherwise} \end{cases}$

This rule defines the pronominalization of the second NP when two NP's have identical reference. Recursive application of the rule pronominalizes all the NP's that have identical reference except for the initial one. Pronominalization 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-còò kalaay Pm <+Prog> mogoyo gè re-còò kalaay
people dm

Pm <+Prog> sefeedele
talk

= ⇒ re-còò kalaay Pm <+Prog> mogoyo gè yiid Pm

<+Prog> sefeedele

"The people over there are eating and talking."

(b) yeliwici kaa Pm <+Prog> tuxu Os fagali yeliwici
child dm hit together

exist limitlessly."

Cf. surface structure + PR14:

Ye be le meri-ya se leboso lã ye towee ma yoor
yixu-li wolo mē yiyage.

TR 14 pronoun feature shift (OP)

SD:	X	NP ₁ <+Pro>	mē	NP ₂ [xSF]	Y
	1	2	3	4	5
SC:	1, 2 U[xSF], 3, 4, 5				

E 469	gaag mē [rii At gaag]	Pm	loxo
	NP ₁ spouse NP ₂		
	[+Pro]	[-Pro]	
	[+SP]	[+Ani]	
	[+SG]	[+SG]	

= ⇒ xaamami mē 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 mē rii At gaag Pm loxo we(excl)
-------	--

"We (excl) and my wife went."

TR 15 <Pro> feature shift

SD:	X	NP	Aux	Y	Vb	{PrepP}	Z
		*					
	1	2	3	4	5	6	7
SC:	1, 3, 4, 5,	{ 2 6 }, 7					
		{ 6 2 }					

A subject NP is obligatorily postposed 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) tarmhale laa Pm kkela
 boy that strong

= ⇒ Pm kkela tarmhale 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 yiyi]_{NP} Pm se wo fiit

= ⇒ bobawe lee Emp Pm se wo fiit yela- At yiyi

"As for this bamboo, its length is one foot."

(c) piis koor kalaay Pm buu doxo [mè Meriken]_{PrepP}
 come dr from

= ⇒ Pm buu doxo piis koor kalaay mè Meriken

Pm buu doxo mè Meriken piis koor kalaay

"Those Peace Corps volunteers are from America."

(d) [gaag mè Ben]_{NP} Pm masèré
 sleep

= ⇒ Pm masèré gaag mè Ben

"Ben and I slept."

TR 18 At deletion

SD:	X	{ NuCm } [Qnt]	At	NP [+def] [-SG]	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"	
	téét	At	yaramata kaa = ⇒	téét yaramata kaa	
	some		person <u>dm</u>	"some of these people"	

TR 19 appositive nominalization

SD:	X	[[NP ₁ NP ₂] _S]NP	Y							
		<table style="border-collapse: collapse; margin: auto;"> <tr> <td style="border: 1px solid black; padding: 2px;"><+Pro></td> <td style="border: 1px solid black; padding: 2px;"><-Pro></td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;"><+Cl ></td> <td style="border: 1px solid black; padding: 2px;"><-Cl ></td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;"><+Nucl>₂</td> <td style="border: 1px solid black; padding: 2px;"><-Nucl>₂</td> </tr> </table>	<+Pro>	<-Pro>	<+Cl >	<-Cl >	<+Nucl> ₂	<-Nucl> ₂		
<+Pro>	<-Pro>									
<+Cl >	<-Cl >									
<+Nucl> ₂	<-Nucl> ₂									
	1	2	3 4 5	6						
SC:	1, 2, 3, 5, 6									

See 4.5.3 for the related discussion.

E 475 (a)	yifaa	[[[yiyi] _{NP₁} [Loorob] _{NP₂}] _S]NP	→	
	where	he		
	= ⇒ [yifaa] _{NP} [yiyi Loorob] _{NP} →			
	"Where is Loorob?"			

(b)	gaag Emp	[ruwé male] _{NP}		[[[lawu- At gaag] _{NP₁} [pese] _{NP₂}] _S]NP		
		2	Cl			(animate)
	= ⇒ gaag Emp [ruwé male] _{NP} [lawu- At gaag pese] _{NP}					
	"As for me, I have two dogs (my dogs are two)."					

(c) $yiiy \text{ Pm } cuwayi \text{ Os } [[[se \text{ yaye}]_{NP_1} [piskaa]_{NP_2}]_S]_{NP}$
 buy 1 Nucl spear
 (long ob.)

$= \Rightarrow yiiy \text{ Pm } cuwayi \text{ Os } [se \text{ yaye } piskaa]_{NP}$

"He bought a fishing spear."

TR 20 pronoun preposition

SD: X $[NP_1 \text{ con } NP_2]_{NP}$ Y
 $[NP_1 \text{ * } NP_2]_{Iden}$
 $\langle -Pro \rangle$ $\langle +Pro \rangle$
 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) $\text{Pm } loxo [[bisi \text{ At } gaag]_{NP_1} \text{ m\`e } [gaag]_{NP_2}]_{NP}$
 $\langle -Pro \rangle$ and $\langle +Pro \rangle$
 "brother"

$= \Rightarrow \text{Pm } loxo \text{ gaag } \text{m\`e } bisi \text{ At } gaag$

"My brother and I went."

(b) $[[senseye]_{NP_1} [gaag]_{NP_2}]_{Iden}$

$= \Rightarrow gaag \text{ senseye}$

"I am a teacher."

TR 21 pronoun deletion

SD: X $\left[\begin{array}{l} \{At\} \\ \{Os\} \end{array} \right. \text{ R} \left. \right]$ N $\left[\begin{array}{l} * \\ \text{Pm} \\ * \end{array} \right]$ Z
 $*$ $\langle +Pro \rangle$
 $\left[\text{Pm } Y \text{ PP } W \right]_a \left[\begin{array}{l} [xSF] \\ [ySF] \end{array} \right]_b \left[\begin{array}{l} * \\ * \end{array} \right]_a$
 $[xSF]$ $[xSF]$
 1 2 3 4 5

where $x_{SF} \neq y_{SF}$

and $W = \emptyset$ or PrepP

SC: 1, 2, $\begin{bmatrix} \emptyset \\ (3) \end{bmatrix}_b$, 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 yiid Emp Pm xacagi Os yiy
all of them

\Rightarrow paaga- At Emp Pm xacagi Os

"Everybody loved her."

Cf. a surface structure + PR14:

Paaga-yire gè re xacagi-ya.
fm

(b) xiic Pm be loxo
we(incl)

\Rightarrow Pm be loxo xiic (by TR 17)

\Rightarrow Pm be loxo

"We will go."

(c) Pm loxo gaag mè melwee bisi-At gaag
that brother

$\begin{bmatrix} +\text{Pro} \\ +\text{SP} \\ -\text{HR} \\ -\text{SG} \end{bmatrix}$	$\begin{bmatrix} +\text{Pro} \\ +\text{SP} \\ -\text{HR} \\ +\text{SG} \end{bmatrix}$
---	---

\Rightarrow Pm loxo (gaag) mè melwee bisi- At

"I and that brother of mine went."

Cf. surface structure + PR14:

Xa loxo (gaag) mè melwee bisi-yi.

(d) [babiyo At gaag m̄ Coon]_{NP} [melee]_{NP}

$$\begin{bmatrix} +\text{Pro} & +\text{Pro} \\ +\text{SP} & +\text{SP} \\ -\text{HR} & -\text{HR} \\ -\text{SG} & +\text{SG} \end{bmatrix}$$

= ⇒ babiyo At (gaag) m̄ Coon melee

"This is a book about John and me."

(e) Pm mommaye yiy l̄ yaramata wee Pm tay lli Os male wee

$$\begin{bmatrix} +\text{Pro} \\ -\text{SP} \\ -\text{HR} \\ +\text{SG} \end{bmatrix} \quad \begin{bmatrix} +\text{Pro} \\ -\text{SP} \\ -\text{HR} \\ +\text{SG} \end{bmatrix} \quad \text{person} \quad \text{ng kill bird}$$

= ⇒ Pm mommaye l̄ 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

$$\begin{bmatrix} \text{xSF} \\ +\text{Pro} \\ \text{xSF} \end{bmatrix}$$

 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 l̄ lawu- At gaag pese kaa = ⇒ pese kaa l̄

lawu- At gaag yiy = ⇒ pese kaa l̄ lawu- At "my dogs"

TR 23 yiyage deletion

SD: X $\left[\begin{array}{l} * \\ \text{Vpr} \\ \left\{ \begin{array}{l} \text{bo} \\ \text{NP} \end{array} \right\} \\ \langle +\text{loc} \rangle \end{array} \right] \text{yiyage} \text{yiyage} \text{Y}$

$$\left. \begin{array}{l} \text{yiyage} \\ \text{yiyage} \end{array} \right]_a$$

 1 2 3 4

SC: 1, $\begin{bmatrix} (3) \\ (3) \\ 3 \end{bmatrix}_a$, 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} cayêlapa
 ng possible to width
 At yiiy <+Emp>

= ⇒ cayêlapa At Emp Pm towee yoxo sulu wo mayiyel
 gali yiiyage

= ⇒ cayêlapa 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>

= ⇒ yiyaa Emp Pm mele yiyage ↘
 <+place>

"Where does he live?"

(e) [yixaa]_{NP} [leboso lā gaag Pm sube [mē leboso]_{PrepP}]_{NP}
 here place Cmp born from

= ⇒ yixaa leboso lā Pm sube mē yiyage

"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 [tē kalla doxo]_{PP}
 for a look hither
 moment

= ⇒ Imp Pm tē kalla doxo

= ⇒ tē 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 yiy
 you (pl) ta listen

= ⇒ Imp Pm sa talega Os yiy

= ⇒ Pm sa talega Os

"You (pl). Listen!"

Cf. surface form + PR14: 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 sg. Pm deletion (1) (OP)

SD: X [NP (Emp)] [+Pm] { TA } [*] Z
 [*]_a [-SP] { Mv } [W PP Y NP]_a
 [+SG]

 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}
 [-SP] TA
 [-HR]
 [+SG]

= ⇒ 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 sg. Pm deletion (2) (OP)

SD: # [+Pm] [+N] X gè Y
 [-SP] [+Dm]
 [-HR]
 [+SG]

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 yiy Pm yiwee cox gè yiy Pm sa tagi
 [+N]
 [+Dm]

= ⇒ Pm yiwee cox gè Pm sa tagi

"Just then he cried."

TR 28 gè deletion (1) (OP)

SD: # [+N] X [gè]_{con} S where X = Int or Ø
 [+Dm]
 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 gè Pm sa kaya gali Os
 $\left[\begin{array}{l} -SP, -HR \\ +SG \end{array} \right]$ tell to $\left[\begin{array}{l} -SP, -HR \\ +SG \end{array} \right]$

= ⇒ yiwee Pm sa kaya gali Os

"Then he taught him."

TR 29 gè deletion (2) (OP)

SD: X Pm Y gè Pm Z where Y does not contain Pm
 $\left[\begin{array}{l} Pm \\ xSF \end{array} \right]$ $\left[\begin{array}{l} Pm \\ xSF \end{array} \right]$
 1 2 3 4 5 6

SC: 1, 2, 3, 5, 6

If two predication markers on both sides of gè "and" have identical features, gè may optionally be dropped.

E 485 lefeecixi wee Emp Pm lutu daxè gè Pm sa xapatapata
 girl dm $\left[\begin{array}{l} -SP \\ -HR \\ +SG \end{array} \right]$ jump up $\left[\begin{array}{l} -SP \\ -HR \\ +SG \end{array} \right]$ talk

gali Os male wee
 to man

= ⇒ lefeecixi wee Emp Pm lutu daxè Pm sa xapatapata

gali Os male wee

"Leaping up, the girl spoke to the man."

TR 30 predication reduction

SD: $\left[\begin{array}{l} X \\ Pm \\ xSF \end{array} \right]$ Y₁ $\left\{ \begin{array}{l} Vb_1 \\ \underline{la} \\ \underline{buu} \quad \underline{doxo} \end{array} \right\}$ Z₁]_S $\left[\begin{array}{l} Pm \\ xSF \end{array} \right]$ Y₁ Vb₁ Z₁
 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 gè Pm sa dare loxo

-SP	-SP
-HR	-HR
+Ani	+Ani
-SG	-SG

= ⇒ Pm sa dare loxo dare loxo

"They walked and walked."

(b) Pm tuxu Os yaramata wee gè Pm tuxu Os yaramata wee

+SP	+SP
+SG	+SG

= ⇒ 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 gè Pm be le kamaaxo Os baréxo

+SP	TA	+SP	watch	dance
+SG		+SG		

= ⇒ Pm be le la kamaaxo Os baréxo

"I will go and watch the dance."

(b) [Pm la]_S Pm buu doxo mè yiyaa
 [+HR] become, [+HR] from where
 [+SG] manage to [+SG]

= ⇒ Pm la buu doxo mè yiyaa

"Where did you manage to come from?"

(c) yuléélapa wee Emp Pm sa buu doxo gè Pm sa mogoyo

old woman	-SP	come <u>dr</u>	-SP
	-HR		-HR
	+SG		+SG

= ⇒ yuléélapa 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	$\left[\begin{array}{c} \text{Dad} \\ \text{Dr} \end{array} \right]_{\text{a}} \text{DIR}$	Y
	1	2	3	4	5
SC:	1, 2,	$\left[\begin{array}{c} (3) \\ \emptyset \end{array} \right]_{\text{a}}$, 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 Dad
 other

= ⇒ 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
 [+SP] let fall Dr
 [+SG]

= ⇒ 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 { Dr } Y]
 { Int } 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
 [-SP] alto- fishing
 [-HR] gether
 [+Ani]
 [-SG]

= ⇒ 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" nominalization

SD: X [Pm (te) V [(DIR) (Os) [* (Int)]_S At Y
[xSF] [*] [(DIR)]_a [xSF]
a [-Pro]
[+SG]

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] run [+SP]
[+SG] [+SG] "my going"

Cf. ddare-yi

(b) [[Pm [xabuu]_v [doxo]_{DIR} Os]_S At]_{NP} [yeliwici lee]_{NP}
[+HR] let [+HR] child dm
[+SG] come [+SG]

= ⇒ 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] ng throw [-Pro]
[+SG] [+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" nominalization

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

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
Cl [-Pro]
(gen) [+Ani] [-SG]

be buu doxo]S ⇒ [yaa- At yaramata kawee]NP [Pm
ta come

be buu doxo]S ⇒ yaa- At yaramata kawee be buu
doxo "those people's coming"

(b) [marama At yaa- At yiyi]NP [yiyi Pm be le malawa] S
month [-Pro] [+Pro] [+Pro] ta give birth
[-SP] [-SP] [-SP]
[-HR] [-HR] [-HR]
[-Ani] [+SG] [+SG]
[+SG]

(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 39 Dm postposition

SD:	X	Nm	Dm	$\left\{ \begin{array}{c} N \\ V \end{array} \right\}$	Y
				$\langle +Adj \rangle$	
	1	2	3	4	5
SC:	1, [2 4] _{Nm} , 3, 5				

See 4.10 for the related discussion.

E 496 (a) $[yima \text{ At}]_{NP} \left[\begin{array}{c} +HR \\ +SG \end{array} \right] \left[[yima]_{Nm} [laay]_{Dm} [mommaye]_V \right]_{NP} \langle +Adj \rangle$ (E495b)

= ⇒ yima At yima mommaye laay

"That good house is yours."

(b) $[[[[[xatuu]_{Mn} [lee]_{Dm} [[1\&]_{Cmp} [Pm \text{ pallege}]_S]_{COM}]_{NP} [[1\&]_{Cmp}$
 cat big

$[Pm \text{ bbece}]_S]_{COM}]_{NP} [[1\&]_{Cmp} [Pm \text{ kkela}]_S]_{COM}]_{NP}$
 white strong

= ⇒ [xatuu lee pallege]_{NP} 1& Pm bbece 1& Pm kkela

= ⇒ [[xatuu pallege]_{Nm} [lee]_{Dm}]_{NP} 1& Pm bbece 1& Pm kkela

= ⇒ [xatuu pallege lee bbece]_{NP} 1& Pm kkela

= ⇒ xatuu pallege bbece lee 1& 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:	#	X	$\left\{ \begin{array}{c} [Nm] \\ [Nm Dm]_a \end{array} \right\}$	$\left[\begin{array}{c} [1\&] \\ [we]_a \end{array} \right]$	NP	Pm	<u>te</u>	V	Y
				$\langle +Adj \rangle$					
	1		2	3		4	5	6	7

TR 42 Cmp lâ "that" deletion (OP)

SD: X { Pm (TA) PP (PrepP) } [lâ S]_{NP} Y
 V Os
 [+Pro]
 -SP
 -HR
 -Ani
 +SG
 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

See 4.9.6 (E 341) for the related discussion.

E 499 gaag Pm dipali Os yiy lâ gaag Pm be loxo Yulidiy
 [+SP]
 [+SG] ta go

= ⇒ Pm dipali Os lâ Pm be loxo Yulidiy = ⇒ Pm dipali Os

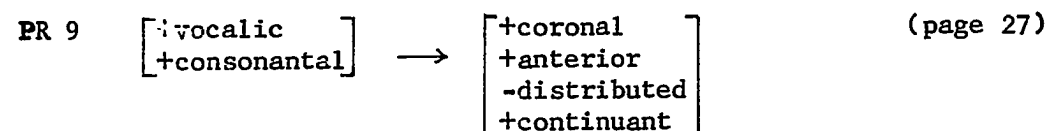
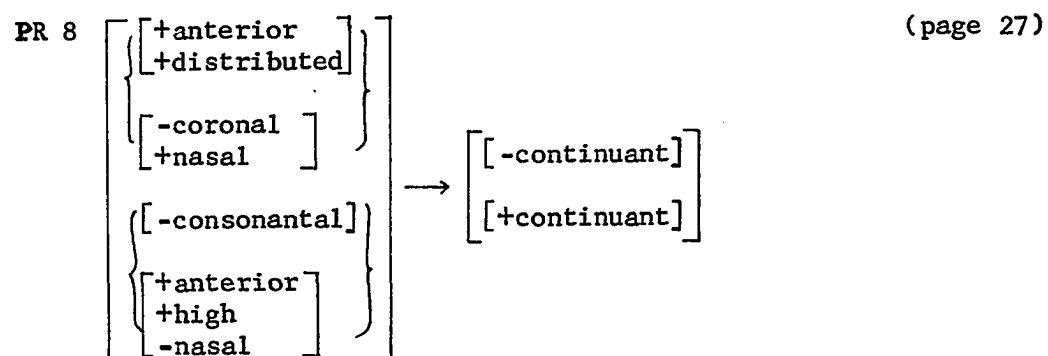
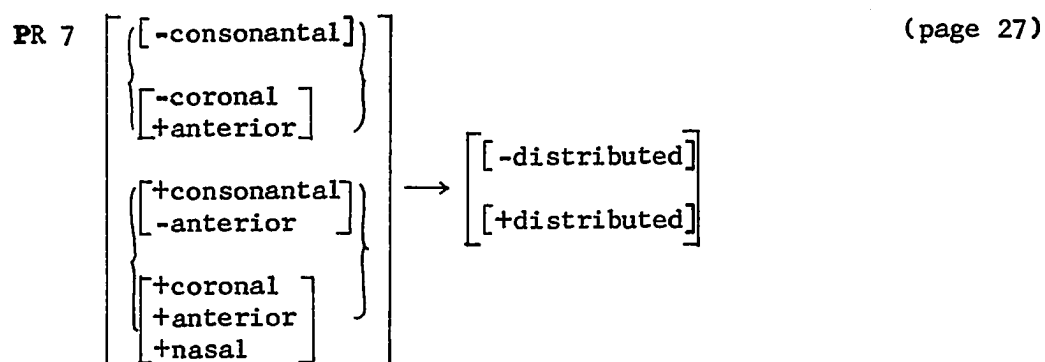
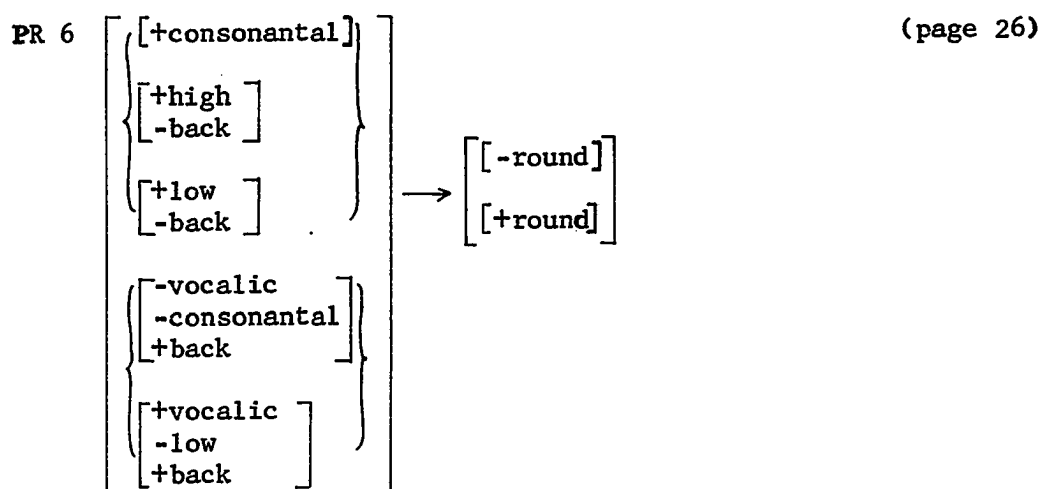
Pm be loxo Yulidiy

"I want to go to Ulithi."

Cf. Yi dipali-ya yi be loxo Yulidiy.

NOTE TO CHAPTER V

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 formalizes 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.



PR10 $\left\{ \begin{array}{l} [-\text{consonantal}] \\ [+nasal] \\ [+coronal \\ -distributed] \\ [+anterior \\ +back \\ +continuant] \end{array} \right\} \rightarrow [+voiced]$ (page 28)

PR11 $[+\text{consonantal}] \rightarrow [+release]$ (page 28)

PR12 $[+\text{consonantal}] \rightarrow [-\text{aspirated}]$ (page 28)

PR 13 $[+\text{vocalic}] \rightarrow [-\text{tense}]$ (page 28)

PR14 $\left[\begin{array}{l} [+SP, +SG] \\ [+HR, +SG] \\ [+Pro, -SP, -HR, +SG] \\ \left\{ \begin{array}{l} [-Pro, -SP, -HR, -Ani] \\ [-Pro, -SP, -HR, +Ani, +SG] \end{array} \right\} \\ [+SP, +HR] \\ [+SP, -HR, -SG] \\ [-SP, +HR, -SG] \\ [-SP, -HR, +Ani, -SG] \end{array} \right] \begin{array}{l}] \\] \\] \\] \\] \\] \\] \\] \end{array} \right]_1 + \left[\begin{array}{l}] \\] \\] \\] \\] \\] \\] \\] \end{array} \right]_3 \Rightarrow \left[\begin{array}{l} \left[\begin{array}{l} yi \\ yi \\ yeyi \end{array} \right]_1 \\ \left[\begin{array}{l} xo \\ mu \\ xo \end{array} \right]_1 \\ \left[\begin{array}{l} ye \\ [la] \\ [li] \\ ya \end{array} \right]_3 \\ \left[\begin{array}{l} si \\ ca \\ xica \end{array} \right]_1 \\ \left[\begin{array}{l} xa \\ mami \\ xomami \end{array} \right]_1 \\ \left[\begin{array}{l} xa \\ miyi \\ xomiyi \end{array} \right]_1 \\ \left[\begin{array}{l} re \\ yire \\ yVre \end{array} \right]_1 \end{array} \right]_2$ (page 58)

$$\text{PR15 } \langle +\text{Prog} \rangle + \begin{bmatrix} C_1(C_1)V_1(V_1)Z \\ C_1V_1C_2V_2 \end{bmatrix} \Rightarrow \begin{bmatrix} C_1V_1C_1(C_1)V_1(V_1)Z \\ C_1V_1C_2C_1V_1C_2V_2 \end{bmatrix} \\ / \# _ \left\{ \begin{array}{l} + \\ \# \end{array} \right\} \quad (\text{page 60})$$

$$\text{PR16 } C_1 \Rightarrow C_1C_1 \quad / \# C_1V_1 _ V_1Z \quad (\text{page 61}) \\ \text{where } C_1 = \text{a nasal, } \underline{k} \text{ or } \underline{x}$$

$$\text{PR17 } xVxx \Rightarrow kVkk \quad (\text{page 62})$$

$$\text{PR18 } \begin{bmatrix} sa \\ saab \end{bmatrix} \Rightarrow \begin{bmatrix} ya \\ yaab \end{bmatrix} \quad / [si]_{Pm} \# [_]_{TA} \quad (\text{page 62})$$

$$\text{PR19 (OP)} \quad \begin{bmatrix} u \\ i \end{bmatrix} \Rightarrow \begin{bmatrix} \acute{e} \\ e \end{bmatrix} / _ + \begin{bmatrix} \sim yi \\ \sim yire \end{bmatrix}_{At} \# \quad (\text{page 63})$$

$$\text{PR20 } V_1 + ya \Rightarrow \begin{cases} V_1V_1 \\ a^<a^< \end{cases} \quad / [_]_{Os} + \text{DIR} \quad (\text{page 64})$$

$$\text{PR21 } awu \Rightarrow \acute{o}\acute{o} \quad / _ + \begin{cases} \sim yi \\ \sim yire \end{cases}_{At} \quad (\text{page 65})$$

$$\text{PR22 (OB) (OP)} \quad 1(L)V \Rightarrow \emptyset \quad / \# CV _ + \begin{bmatrix} li \\ la \end{bmatrix}_{At} \# \quad (\text{page 65})$$

$$\text{PR23 } e \Rightarrow i \quad / u \# [y_xe]_{Num} \quad (\text{page 67})$$

$$\text{PR24 } a \Rightarrow \begin{bmatrix} \acute{e} \\ o \\ e \end{bmatrix} \quad / \quad u + \begin{bmatrix} \{ f_se \\ m_le \} \\ \{ y_le \\ y_ye \} \\ y_fe \end{bmatrix}_{Nucl} \quad (\text{page 67})$$

$$\text{PR25} \quad a \Rightarrow e / \begin{bmatrix} \text{se} \\ \text{faay} \\ \text{wble} \end{bmatrix}_{\text{Nus}} + [\text{y_le}]_{\text{Nucl}} \quad (\text{page 68})$$

$$\text{PR26} \quad + \Rightarrow \emptyset / \#Z_Z \left\{ \begin{array}{l} + \\ \# \end{array} \right\} \quad (\text{page 68})$$

$$\text{PR27} \quad \left\{ \begin{array}{l} e \\ \acute{e} \\ a \end{array} \right\} \Rightarrow V_1 / _ (\#) \begin{array}{l} C \\ [+back] \end{array} \begin{array}{l} V_1 \\ [+back] \end{array} Z\# \quad (\text{page 69})$$

$$\text{PR28} \quad a \Rightarrow \begin{bmatrix} \acute{e} \\ \left[\begin{array}{l} o \\ \acute{e} \end{array} \right]_2 \end{bmatrix}_1 / \begin{bmatrix} Vy \\ \tilde{a} \\ \left[\begin{array}{l} P \\ \tilde{P} \end{array} \right]_2 \end{bmatrix}_1 \quad _ \mu \# \quad (\text{page 70})$$

where $P = p, m, B$ ($B = b, \acute{m}, w$), single or double

and $\tilde{P} =$ any other C , single or double

and $\tilde{a} =$ any V other than \underline{a}

$$\text{PR29} \quad \text{ayire} \Rightarrow \acute{a}\acute{a}\text{re} / C_ \# \quad (\text{page 71})$$

$$\text{PR30} \quad V_1(V_1) \left\{ \begin{array}{l} \text{yire} \\ \text{yVre} \end{array} \right\} \Rightarrow V_1V_1\text{re} / _ \# \quad (\text{page 72})$$

$$\text{PR31} \quad a \Rightarrow \begin{bmatrix} e \\ \acute{e} \end{bmatrix} / \begin{bmatrix} \left\{ \begin{array}{l} Vy \\ \left\{ \begin{array}{l} i \\ e \end{array} \right\} C \end{array} \right\} \\ \left\{ \begin{array}{l} \acute{e} \\ o \\ u \end{array} \right\} C \end{bmatrix} _ \tilde{B} i \quad (\text{page 73})$$

where $\tilde{B} =$ any consonant other than $\underline{b}, \underline{m}, \underline{w}$

and $C =$ any consonant other than \underline{y} , single or double

$$\text{PR32} \quad \begin{bmatrix} a \\ aa \end{bmatrix}_1 \Rightarrow \begin{bmatrix} a^< \\ a^< a^< \end{bmatrix}_1 / \begin{bmatrix} \{ i \\ e \} \\ \{ a \\ \hat{o} \\ \# \} \end{bmatrix}_2 \tilde{B} _ C \begin{bmatrix} \# \\ \{ i \\ e \\ \hat{e} \} \end{bmatrix}_2 \quad (\text{page 74})$$

where \tilde{B} is any consonant (single or double) other than \underline{b} , \underline{m} , \underline{w}

and C is any consonant, single or double

$$\text{PR33} \quad aya \Rightarrow a^< a^< / C _ \begin{Bmatrix} \# \\ C \end{Bmatrix} \quad (\text{page 75})$$

$$\text{PR34} \quad \begin{bmatrix} o \\ Vq \end{bmatrix} \Rightarrow \begin{bmatrix} o \\ Vq \end{bmatrix} / _ C i \quad (\text{page 76})$$

where $Vq = \underline{ee}, \underline{\hat{a}\hat{a}}, \underline{\hat{o}\hat{o}}, \underline{oo}$

$$\text{PR35} \quad \begin{bmatrix} i \\ o \end{bmatrix} \Rightarrow u / \begin{bmatrix} C _ xo \\ ux _ \end{bmatrix} \quad (\text{page 77})$$

$$\text{PR36} \quad V_1 \Rightarrow V_1^* / _ xo\# \quad (\text{page 78})$$

where $V_1 \neq u, \hat{e}$

$$\text{PR37} \quad l \Rightarrow n / nV _ \quad (\text{page 79})$$

$$\text{PR38} \quad \begin{bmatrix} l \\ ll \end{bmatrix} \Rightarrow \begin{bmatrix} l^< \\ l^< l^< \end{bmatrix} / \begin{bmatrix} Vz \\ \{ a \\ o \\ \# \} \end{bmatrix} _ (C) \begin{bmatrix} Z \\ Vz \end{bmatrix} \quad (\text{page 79})$$

where $Vz = i, e, \hat{a}, u, \hat{e}$ ($\hat{Vz} = o, \hat{o}, a$)

and Z = any segment including zero

PR39 $m \Rightarrow \text{m} / \left\{ \begin{array}{l} _u\# \\ V_j _ \left\{ \begin{array}{l} u \\ o \\ \text{b} \end{array} \right\} \\ _V \text{m} \end{array} \right\}$ (page 80)

where $V_j = a, o, (\text{b}), u, \text{e}$

PR40 $\left[\begin{array}{l} [V_q] \\ [\tilde{V}_q]_1 \\ V \end{array} \right]_2 \Rightarrow \left[\begin{array}{l} [-voiced] \\ \emptyset \\ \emptyset \end{array} \right]_1 / \left[\begin{array}{l} Z \ x \ _ \# \\ Z \ \tilde{x} \ _ \# \end{array} \right]_2$ (page 81)

where $V_q = \left[\begin{array}{l} +vocalic \\ +back \end{array} \right]$ i.e. a, b, o, u

and $\tilde{V}_q =$ any V other than V_q

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

PR41 $CVC(v) \Rightarrow CVVC(v) / \# [_]_{Nm} \#$ (page 83)

where Nm is a syntactic category (a low

level noun phrase) and $v =$ voiceless V

PR42 $C \Rightarrow \emptyset / C _ \#$ (page 84)

PR43 $Cc \Rightarrow \emptyset$ (page 85)

PR44 $\# \Rightarrow \left\{ \begin{array}{l} \emptyset \\ / \left\{ \begin{array}{l} \{ E_m \} _ TA \\ TA \\ N _ (Adj) _ D_m \\ _ Num \end{array} \right\} \\ // \text{ elsewhere} \end{array} \right.$ (page 85)

PR45 $\begin{bmatrix} w \\ \\ y \end{bmatrix} \Rightarrow \emptyset / \left[\begin{array}{l} \left\{ \begin{array}{l} u_y \\ (u_c) \\ _u \end{array} \right\} \\ \left\{ \begin{array}{l} (ZC) _ (C) \\ V_1 _ V_1 \\ \left(\begin{array}{l} V _ Os // \\ Vh _ \sim At // \end{array} \right) \\ _ \left\{ \begin{array}{l} i \\ e \end{array} \right\} \end{array} \right. \end{array} \right]$ (page 86)

PR46 $u \Rightarrow i / _ C \left\{ \begin{array}{l} i \\ e \end{array} \right\} x$ (page 87)

PR47 $\left\{ \begin{array}{l} i \\ e \\ o \\ \acute{e} \end{array} \right\} \Rightarrow u / //B_C \left\{ \begin{array}{l} i \\ u \end{array} \right\} \left(\begin{array}{l} [+ant] \\ [+high] \\ [+back] \end{array} \right) \left(\begin{array}{l} [+voc] \\ [+high] \end{array} \right)$ (page 88)

PR48 $V \Rightarrow \begin{bmatrix} \emptyset \\ \\ \acute{z} \end{bmatrix}_2 / \left[\begin{array}{l} \left[\begin{array}{l} V \\ V_1 \end{array} \right] \left\{ \begin{array}{l} N \\ L \\ \tilde{N} \\ \tilde{L} \end{array} \right\} \\ _ C \left[\begin{array}{l} V \\ V_2 \end{array} \right] \left. \right]_2$ (page 88)

where $N = \underline{m}, \underline{n}, \underline{m}, \underline{g}$; $L = \underline{l}$

\acute{z} = high central unrounded glide

$V \neq V_1 \left\{ \begin{array}{l} \neq \\ = \end{array} \right\} V_2$

PR49 $m\acute{e} \Rightarrow m / _ (if // \Rightarrow \emptyset) [i]$ (page 90)

PR50 $(V_1) l \Rightarrow T_1 / V_1 _ (if // \Rightarrow \emptyset) T_1$ (page 91)

where $T = [+coronal] = \underline{t}, \underline{d}, \underline{c}, \underline{s}, \underline{r}, \underline{n}$

$$\text{PR51} \quad u(u) \Rightarrow [-\text{back}] / \left\{ \begin{array}{c} d \\ s \\ l \\ m \end{array} \right\} _ \tilde{B} \quad (\text{page 92})$$

$$\text{PR52} \quad \left\{ \begin{array}{c} b \\ d \end{array} \right\} \Rightarrow [-\text{voiced}] / _ \left\{ \begin{array}{c} // \\ [-\text{voiced}] \end{array} \right\} \quad (\text{page 93})$$

$$\left(\left[\begin{array}{c} -\text{vocalic} \\ +\text{anterior} \\ +\text{continuant} \end{array} \right] \right)$$

$$\text{PR53} \quad \left\{ \begin{array}{c} f \\ x \end{array} \right\} \Rightarrow [+voiced] / [+voiced] _ [+voiced] \quad (\text{page 93})$$

$$\text{PR54} \quad \left[\begin{array}{c} S_1 \\ \left\{ \begin{array}{c} l \\ n \\ g \end{array} \right\} \\ \left\{ \begin{array}{c} m \\ \text{h} \end{array} \right\} \end{array} \right] \Rightarrow [-\text{release}] / _ \left[\begin{array}{c} S_1 \\ \left\{ \begin{array}{c} c \\ // \end{array} \right\} \\ \left\{ \begin{array}{c} p, b, m, \text{h} \\ (//) \end{array} \right\} \end{array} \right] \quad (\text{page 94})$$

where $S = \left[\begin{array}{c} -\text{nasal} \\ -\text{continuant} \end{array} \right] = p, t, k, c, r$

$$\text{PR55} \quad \left\{ \begin{array}{c} p \\ t \\ c \\ k \end{array} \right\} \Rightarrow \text{slightly aspirated} / _ // \quad (\text{page 95})$$

$$\text{PR56} \quad \left[\begin{array}{c} C_1 \\ V_1 \end{array} \right] \Rightarrow [+tense] / (_) \left[\begin{array}{c} C_1 \\ V_1 \end{array} \right] (_) \quad (\text{page 95})$$

PR57 $x \Rightarrow \Rightarrow \left\{ \begin{array}{l} \text{fronted / } _ \left\{ \begin{array}{l} C \\ // \\ i, e, \text{ } \grave{a}, \acute{e}, u \end{array} \right\} \\ \text{slightly voiced / } // _ \acute{e} \\ x^{\grave{h}} / _ i, e, \text{ } \grave{a} \end{array} \right. \quad \text{(page 95)}$

PR58 $\left[\begin{array}{l} \{ \text{ay}\acute{e} \} \\ \{ \text{awu} \} \\ \text{ } \grave{a}w \\ \text{ } \acute{a}(y)i \end{array} \right] \Rightarrow \Rightarrow \left[\begin{array}{l} [\text{ } \acute{u} :] \\ [\text{ } \acute{u}] \\ \text{ } \acute{a}\acute{a} \end{array} \right] \quad \text{(page 96)}$

PR59 $\left[\begin{array}{l} V_1 V_1 \\ V \end{array} \right] \Rightarrow \Rightarrow \left[\begin{array}{l} \acute{V}_1 V_1 \\ \acute{V} / _ CCV \left\{ \begin{array}{l} C \\ \# \end{array} \right\} \end{array} \right] \quad \text{(page 96)}$

2. Constituent Structure Rules

BR 1 $S \longrightarrow S (\text{con} \hat{S}) \quad \text{(page 116)}$

BR 2 $S \longrightarrow (\text{Modality}) \text{ Proposition} \quad \text{(page 124)}$

BR 3 $\text{Modality} \longrightarrow \left(\begin{array}{c} Q \\ \text{Imp} \end{array} \right) (\text{Emp}) \quad \text{(page 125)}$

BR 4 $\text{Proposition} \longrightarrow (\text{SA}) \left\{ \begin{array}{l} \text{Predication} \\ \text{Identification} \end{array} \right\} (\text{PrepP}) \quad \text{(page 125)}$

BR 5 $\text{Predication} \longrightarrow \text{NP} \hat{\text{Aux}} \hat{\text{PP}} \quad \text{(page 133)}$

BR 6 $\text{Aux} \longrightarrow \text{Em} (\text{TA}) \quad \text{(page 133)}$

BR 7 $\text{PP} \longrightarrow (\text{Mv}) \text{VP} \quad \text{(page 133)}$

BR 8	Identification \longrightarrow NP \hat{N} P	(page 178)
BR 9	VP \longrightarrow $\left\{ \begin{array}{l} \text{VB (NP) (COM)} \\ \text{NP} \end{array} \right.$	(page 192)
BR10	VB \longrightarrow Vb (NP)	(page 192)
BR11	Vb \longrightarrow Vp (DIR) (Int)	(page 192)
BR12	DIR \longrightarrow (Dr) (Dad)	(page 192)
BR13	PrepP \longrightarrow (Prp) $\left\{ \begin{array}{l} \text{NP} \\ \text{PrV} \end{array} \right.$	(page 225)
BR14	PrV \longrightarrow Vpr \hat{N} P	(page 225)
BR15	NP \longrightarrow NP ($\begin{array}{l} \text{con NP} \\ \text{COM} \end{array}$)	(page 272)
BR16	NP \longrightarrow (Mn) NM	(page 272)
BR17	NM \longrightarrow Nm (Dm) (Dr) (Int)	(page 272)
BR18	Nm \longrightarrow $\left\{ \begin{array}{l} \text{N} \\ \text{NUC} \\ \text{S} \end{array} \right.$ (ATT)	(page 272)
BR19	ATT \longrightarrow At \hat{N} P	(page 272)
BR20	NUC \longrightarrow (Rpt) $\left\{ \begin{array}{l} \text{NuCm} \\ \text{Qnt} \end{array} \right.$	(page 272)
BR21	NuCm \longrightarrow (Ord) Nus $\left\{ \begin{array}{l} \text{Nuc1} \\ \text{Num} \end{array} \right.$	(page 272)

BR22 $\text{COM} \longrightarrow \text{Cmp}^{\wedge}\text{S}$ (page 372)

BR23 $\begin{bmatrix} \text{Vp} \\ \text{Vpr} \end{bmatrix} \longrightarrow \begin{bmatrix} \text{V} \\ \text{Vprs} \end{bmatrix} \text{ (Os)}$ (page 434)

3. Syntactic Redundancy Rules

RR 1 $\text{V} \longrightarrow \langle \underline{+}\text{Prog} \rangle$ (page 463)

RR 2 $\text{NP} \longrightarrow \langle \underline{+}\text{Emp} \rangle$ (page 464)

RR 3 $\begin{bmatrix} \underline{+}\text{N} \\ \underline{-}\text{Pro} \\ \underline{-}\text{Dm} \end{bmatrix} \longrightarrow \langle \underline{+}\text{SG} \rangle$ (page 465)

RR 4 $\left\{ \begin{array}{l} \langle \underline{+}\text{Cl} \rangle \\ \langle \underline{+}\text{Nuc1} \rangle \\ \langle \underline{+}\text{Pro} \rangle \\ \langle \underline{+}\text{Dm} \rangle \end{array} \right\} \longrightarrow \langle \underline{+}\text{def} \rangle$ (page 466)

RR 5 $\left\{ \begin{array}{l} \langle \underline{+}\text{Cl} \rangle \\ \langle \underline{+}\text{Nuc1} \rangle \\ \langle \underline{+}\text{Q} \rangle \\ \langle \underline{+}\text{Dm} \rangle \end{array} \right\} \longrightarrow [\underline{-} \underline{\text{Dm}}]$ (page 466)

RR 6 $\left\{ \begin{array}{l} \langle \underline{+}\text{Pro} \rangle \\ \langle \underline{+}\text{Q} \rangle \\ \langle \underline{+}\text{Dm} \rangle \end{array} \right\} \longrightarrow [\underline{-} \underline{\text{ATT}}]$ (page 467)

RR 7 $[\underline{+} \underline{\text{NP}}_1 \widehat{\text{NP}}_2] \longrightarrow [\underline{+} \underline{\text{NP}}_1]$ (page 467)

RR 8 $[\underline{-} \underline{\text{Os}}, \underline{+} \underline{\text{NP}}] \longrightarrow [\underline{-} \underline{\text{Os}}]$ (page 467)

RR 9 [+ PrepP] → [+]

(page 467)

4. Transformation Rules

TR 1 Pm feature copying

(page 474)

SD: X NP₁ Pm Y
 [xSF] { { m^é }
 { g^é }
 xaree } NP₂
 con [ySF]
 *]_a

 1 2 3 4 5

SC: 1, [2 3]_{NP} , 4 + [[xSF U ySF]]_a , 5
 [[xSF U ySF]]
 [ySF]
 [xSF]]_a [[xSF]]
 [xSF]]_a

TR 2 At & Os feature copying

(page 475)

SD: X { At } Z where Y ≠ NP
 { Os Y } NP
 [xSF]

 1 2 3 4 5

SC: 1, 2 + [xSF], 3, 4, 5

TR 3 reduction of coordinate sentences (OP)

(page 478)

SD: [X₁ NP₁ Y₁]_S [g^é [X₁ NP₂ Y₁]_S
 ([xSF]) ([vSF]) [xaree]_a ([ySF]) ([wSF])

SC: X_1 $[NP_1 \left[\begin{array}{c} \{m\acute{e}\} \\ \{g\acute{e}\} \\ \text{xaree} \end{array} \right]_a$ $NP_2]_{NP}$ Y_1
 $\left[\begin{array}{c} ([xSF \text{ U } ySF]) \\ ([xSF]) \end{array} \right]_a$ $\left[\begin{array}{c} ([vSF \text{ U } wSF]) \\ ([wSF]) \end{array} \right]_a$
 condition: NP_1 and NP_2 are not pseudo-prepositionals.

TR 4 number shift (OP) (page 480)

SD: X $\left[\begin{array}{c} * \\ \{At\} \\ \{Os\} \end{array} \right]_a$ NP $\langle -Pro \rangle$ $\left[\begin{array}{c} P_m \\ * \end{array} \right]_a$ Y
 $\langle -SG \rangle$ $\langle -SG \rangle$
 1 2 3 4 5

SC: 1, $\langle -SG \rangle = \Rightarrow \langle +SG \rangle$, 3, $\langle -SG \rangle = \Rightarrow \langle +SG \rangle$, 5

TR 5 Pm feature shift (OP) (page 482)

SD: X NP_1 $[xaree]_{con}$ NP_2 $\left[\begin{array}{c} P_m \\ \langle +SP \rangle \\ \langle +HR \rangle \\ \langle -SG \rangle \end{array} \right]$ Y
 1 2 3 4 5 6

SC: 1, 2, 3, 4, $\left[\begin{array}{c} \langle +SP \rangle \\ \langle +HR \rangle \\ \langle -SG \rangle \end{array} \right]_a \xRightarrow{P_m} \left[\begin{array}{c} \langle -SP \rangle \\ \langle -HR \rangle \\ \langle +SG \rangle \end{array} \right]_a$, 6

TR 6 reduction of sentences involving PrepP's, Mn's, Mv's and Int's (OP) (page 483)

SD: X_1 $\left[\begin{array}{c} PrepP_1 \\ Mn_1 \\ Mv_1 \\ Int_1 \end{array} \right]_a$ Y_1 $[g\acute{e}]_{con}$ X_1 $\left[\begin{array}{c} PrepP_2 \\ Mn_2 \\ Mv_2 \\ Int_2 \end{array} \right]_a$ Y_1
 1 2 3 4 5 6 7

SC: 1, [2 6] $\left[\begin{array}{c} \text{PrepP} \\ \text{Mn} \\ \text{Mv} \\ \text{Int} \end{array} \right]_2, 3$

TR 7 TA juxtaposition (page 484)

SD: X_1 TA Y_1 $[g\acute{e}]_{\text{con}}$ X_1 TA Y_1
 <-neg> <+neg>
 1 2 3 4 5 6 7

SC: 1, 2, 6, 3

conditions: 1. $[SD]_S \hat{g\acute{e}} \hat{S}$
 <+subord>

2. $NP \hat{Cmp} \hat{[SD]}_S$

TR 8 post-ye Predication deletion (page 485)

SD: X Pred₁ $[ye]_{\text{con}}$ Pred₁ PrepP Y
 1 2 3 4 5 6

SC: 1, 2, 3, 5, 6

TR 9 yes-no question (page 486)

SD: X Q Y Proposition Z
 1 2 3 4 5

where 4 does not contain a word having $\left[\begin{array}{c} +Q \\ +Emp \end{array} \right]$

SC: $\left\{ \begin{array}{l} 1, 3, 4 \rightarrow, 5 \text{ if X ends in QY Proposition } \underline{\text{xaree}} \\ \text{or} \\ 1, 3, 4 \rightarrow, 5 \text{ elsewhere} \end{array} \right.$

TR 10 interrogative word (with <+Emp>) question (page 486)

SD: X Q Emp [Y W Z] Proposition R
 [+Q]
 [+Emp]
 1 2 3 4 5 6 7

SC: 1,3,4,5,6,7 ↘

TR 11 focus (page 487)

SD: X Emp Y NP₁ Z NP₂ ... R NP_n W where n ≠ 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 2's
 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 489)

SD: [X NP₁ Y]_S { At } NP₁ Z
 { ATT }
 1 2 3 4 5 6 7

SC: 1, 3, 4, 5, 6, 7

TR 13 pronominalization

(page 490)

SD: X NP₁ Y NP₁ Z

{ [xSF] } { [xSF] }

{ <xtime> } { <xtime> }

1 2 3 4 5

SC: 1, 2, 3, ANAPH, 5

{ [xSF] }

{ <xtime> }

where ANAPH = $\left\{ \begin{array}{l} \text{yiyage / } \left[\begin{array}{l} (\text{Prp})(N \hat{=} \text{At}) \\ \text{<+loc>} \\ (\text{Vpr}) \end{array} \right] \text{PrepP} \\ \left\{ \begin{array}{l} [xSF] \\ \text{<xtime>} \end{array} \right\} \\ \text{<+Pro> U [xSF] \text{ otherwise} \end{array} \right.$

TR 14 pronoun feature shift (OP)

(page 492)

SD: X NP₁ mē NP₂ Y

{ <+Pro> } { [xSF] }

1 2 3 4 5

SC: 1, 2 U [xSF], 3, 4, 5

TR 15 Pro feature shift

(page 492)

SD: X At NP Y

{ <-Pro> } { <+Pro> }

1 2 3 4

SC: 1, <-Pro> $\xRightarrow{\text{At}}$ <+Pro>, 3, 4

TR 16 PrV permutation

(page 493)

SD: X NP [Vpr NP] PrV Y
 <-Pro> <+Pro>
 1 2 3 4 5

SC: 1, 3, 4, 2, 5

TR 17 subject NP postposition

(page 493)

SD: X NP Aux Y Vb {PrepP} Z
 *
 1 2 3 4 5 6 7

SC: 1, 3, 4, 5, $\left\{ \begin{array}{cc} 2 & 6 \\ 6 & 2 \end{array} \right\}, 7$

TR 18 At deletion

(page 494)

SD: X { NuCm } At NP Y
 { Qnt } [+def]
 [-SG]

1 2 3 4 5 where NuCm does not contain
 Ord

SC: 1, 2, 4, 5

TR 19 appositive nominalization

(page 495)

SD: X [[NP₁ NP₂]_S]_{NP} Y
 $\left[\begin{array}{c} \langle +Pro \rangle \\ \langle +Cl \rangle \\ \langle +Nucl \rangle \end{array} \right]_a$ $\left[\begin{array}{c} \langle -Pro \rangle \\ \langle -Cl \rangle \\ \langle -Nucl \rangle \end{array} \right]_a$
 1 2 3 4 5 6

SC: 1, 2, 3, 5, 6

TR 20 pronoun preposition

(page 496)

SD: X [NP₁ con NP₂]_{NP} Y
 [NP₁ * NP₂]_{Iden}
 <-Pro> <+Pro>
 1 2 3 4 5

SC: 1, 4, 3, 2, 5

TR 21 pronoun deletion

(page 496)

SD: X [[{ At } R]
 [Os] N
 <+Pro>
 * Pm
 Pm Y PP W]_a [[xSF]
 [ySF]]_b [*]
 Pm
 *]_a
 [xSF] [xSF]
 1 2 3 4 5

where xSF ≠ ySF

and W = ∅ or PrepP

SC: 1, 2, [∅] , 4, 5
 [(3)]_b

TR 22 pronoun deletion (2)

(page 498)

SD: X [NP₁ 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 498)

SD:	X	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">*</div> <div style="margin-bottom: 10px;">Vpr</div> <div style="margin-bottom: 10px;"><u>bo</u></div> <div style="margin-bottom: 10px;">NP</div> <div style="margin-bottom: 10px;"><+loc></div> </div>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">yiiyage <+time></div> <div style="margin-bottom: 10px;">yiiyage</div> </div>	Y
	1	2	3	4

SC: 1, $\left[\begin{array}{c} (3) \\ (3) \\ 3 \end{array} \right]_a$, 4

TR 24 imperative (Pm deletion) (OP)

(page 500)

SD:	Imp	Pm	PP	X
		<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 5px;">+HR</div> <div style="margin-bottom: 5px;">+SG</div> </div>		
	1	2	3	4

SC: 3, 4

TR 25 imperative (Imp deletion)

(page 500)

SD:	Imp	X	Pm	Y
			<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 5px;"><+HR></div> </div>	
	1	2	3	4

SC: 2, 3, 4

TR 26 3rd person sg. Pm deletion (1) (OP) (page 501)

SD: X $\left[\begin{array}{c} \text{NP (Emp)} \\ * \end{array} \right]_a$ $\left[\begin{array}{c} +Pm \\ -SP \\ -HR \\ +SG \end{array} \right]$ $\left\{ \begin{array}{c} \text{TA} \\ \text{Mv} \end{array} \right\}$ $\left[\begin{array}{c} * \\ \text{W PP Y NP} \end{array} \right]_a$ Z

1 2 3 4 5 6

SC: 1, 2, 4, 5, 6

TR 27 3rd person sg. Pm deletion (2) (OP) (page 502)

SD: # $\left[\begin{array}{c} +Pm \\ -SP \\ -HR \\ +SG \end{array} \right]$ $\left[\begin{array}{c} +N \\ +Dm \end{array} \right]$ X g \acute{e} Y

1 2 3 4 5 6

SC: 1, 3, 4, 5, 6

TR 28 g \acute{e} deletion (1) (OP) (page 502)

SD: # $\left[\begin{array}{c} +N \\ +Dm \end{array} \right]$ X [g \acute{e}] S where X = Int or \emptyset

1 2 3 4 5

SC: 1, 2, 3, 5

TR 29 g \acute{e} deletion (2) (OP) (page 503)

SD: X $\left[\begin{array}{c} Pm \\ xSF \end{array} \right]$ Y g \acute{e} $\left[\begin{array}{c} Pm \\ xSF \end{array} \right]$ Z where Y does not contain Pm

1 2 3 4 5 6

SC: 1, 2, 3, 5, 4, 6

TR 34 anaphoric ma (hb) adjunction (OP) (page 506)

SD: X ma Mv Y
1 2 3 4

SC: 1, 2, 3, 2, 4

TR 35 Dr-Dad permutation (OP) (page 506)

SD: X Dr Dad Y
1 2 3 4

SC: 1, 3, 2, 4

TR 36 attributive "head-S type" nominalization (page 507)

SD: X $\begin{bmatrix} \text{Em} \\ [\text{xSF}] \end{bmatrix}$ (te) V $\begin{bmatrix} (\text{DIR}) \\ * \\ a \\ [-\text{Pro}] \\ [+SG] \end{bmatrix}$ (Os) $\begin{bmatrix} * \\ (\text{DIR}) \\ a \end{bmatrix}$ (Int)]_S At $\begin{bmatrix} \text{At} \\ [\text{xSF}] \end{bmatrix}$ Y
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" nominalization (page 508)

SD: X $\begin{bmatrix} \text{yaa-} \\ [\text{xSF}] \end{bmatrix}$ $\begin{bmatrix} \text{At} \\ [\text{xSF}] \end{bmatrix}$ Y] _{NP} $\begin{bmatrix} \text{Em} \\ [\text{xSF}] \end{bmatrix}$ $\begin{bmatrix} \text{z} \\ \text{S} \end{bmatrix}$ _{NP} W
1 2 3 4 5 6 7 8

TR 41 Cmp deletion (OP)

(page 511)

SD: X Dm { 1& } Y
 { we }
 Cmp
 1 2 3 4

SC: 1, 3, 4

TR 42 Cmp 1& "that" deletion (OP)

(page 512)

SD: X { Pm (TA) PP (PrepP) } [1& S]_{NP} Y
 V Os
 [+Pro]
 [-SP]
 [-HR]
 [-Ani]
 [+SG]
 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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