

THE VERBAL SYNTAX OF EWE

by

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ABSTRACT

The subject of this study is the syntax of the verb in the Anlo dialect of Ewe. The categories of tense, aspect, mood and negation as well as the phonologically clitic pronouns are investigated, and it is claimed that these forms are described with maximal generality in terms of relatively simple base representations and a small number of grammatical transformations. The peculiar syntactic properties of verb phrases marked for aspect are viewed as a consequence of a more general rule applying to a class of syntactically complex nouns. Verbs are then broadly subcategorized in terms of the (base) syntactic environments they accept: these environments, stated as subcategorization features, are shown to play a pivotal role in the differentiation of the many semantic functions which may be associated with single verb stems. It is finally suggested that an adequate independent definition of the notion 'morphological rule' may permit certain more general statements about the form of Ewe grammar and the functioning of its rules.

This study is based primarily upon data collected by the writer during the course of field research in Legon and Anyako, Ghana.

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FOREWORD

The study which follows concerns Ewe verbal syntax in the narrower sense. The auxiliary system, the clitic pronouns, certain simple movement transformations, and the problem of verbal syntactic subcategorization have been considered, while the complex area of verbal 'serialization' and the syntax of predicate adjectives and nominals have not been dealt with.

The term 'verbal syntax' probably corresponds to no objectively definable part of the grammar. On the one hand, we find ourselves continually obliged to consider syntactic phenomena which do not directly involve the verb; on the other, there is reason to believe that much of the data under consideration falls more properly under the heading of morphology. The presentation therefore takes the form of a series of interrelated, to some extent cumulative essays on various topics centering around the Ewe verb. It is summarized in terms of a list of rules representing a subsection of the grammar of Ewe (Anlo dialect).

Perhaps the central problem in linguistic theory

at present is that of constructing a theory of grammar ample (powerful) enough to provide for all the phenomena known to occur in natural languages, while sufficiently constrictive (weak) to exclude the sort of data that one would never expect to find, outside of artificially constructed languages. It may safely be said that no existing theory meets this goal. Until reasonable progress is made in solving this problem, it is of little linguistic interest to demonstrate that some particular interpretation of a linguistic theory can generate a subset of the sentences of a language, excluding another subset of ungrammatical utterances. What would have an interest is a theory specific enough to force a decision in every case where we have a choice between two competing grammars, differing by at least one rule. For this reason an attempt has been made here to place a maximal amount of constraints upon the theoretical model, consistent with what is now known about Ewe. In several cases considered, it will prove sufficient to select among alternative proposed grammars.

It need hardly be said that the present study is indebted in an essential way to a great many people. In the first place, I should like to thank my thesis supervisor, Professor C.E. Bazell, for the help he has given me during the course of my studies at the School of Oriental and African Studies, and for the many comments and corrections he offered to a first version of this text. I am also indebted to Neil Smith for many highly instructive comments on earlier drafts of several chapters. From Mrs. Lily Baëta Mallet I have received much-appreciated help in finding many of the crucial examples of Chapters 2, 3,

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Needless to say, this work would not have been possible without the hospitality and generous help of many people in Anyako (Volta Region, Ghana), where most of my field research was conducted in the first half of 1970. My special appreciation goes to my close collaborators and instructors Godfred K. Blebu and Dickson Dovlo, Anyako residents who may claim responsibility for whatever success I had in acquiring fundamental notions of Ewe grammar during my stay. For their help in other matters I thank my host, Todia Kpogo Lãdzekpo, as well as Owusu Gbewonyo and Emmanuel Tay of the E.P. Primary School. At the University at Legon I received valuable assistance from Gilbert Ansre and members of the Institute of African Studies, from Alan Duthie, and from Kofi Dei, Cynthia Nutsugah, and Doris Senuvie, all students at the University.

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INTRODUCTION

The Ewe language as it is spoken in present-day Ghana and Western Togo is one of the better-known languages of West Africa. This is due in large part to the work of Diedrich Westermann, whose dictionaries (1905, 1954) and grammar (1907, 1930) have long served as a basis of reference for linguists concerned with typological problems and language universals, and interested in drawing upon African sources. In addition, this work served for many years as a prime source of reference for those who were involved in the construction of a standard language.

If the present study does not take the form of a critical examination of the work of Westermann and those who have followed him, it is not out of lack of recognition of the value and importance of this work, but due to a difference in scope and methodology. Westermann, Ansre and others have given us descriptive grammars of the language which cover to a greater or lesser extent most of its scientifically and linguistically interesting aspects. Here, we propose to narrow our sights and examine a series of selected topics central to Ewe syntax (but far from exhausting it), with the aim of discovering some of the regularities to be observed in the language at a more abstract level than previous investigations have considered, that of 'deep structure'.

It is found that by hypothesizing transformational relationships between representations of 'observed' sentences of the language and certain more abstract structures, we can achieve considerable simplification of the grammar, in the sense that fewer statements are required to describe it. Needless to say, this result has considerable interest. Assuming, as seems reasonable, that an individual in a learning situation tends to select the simplest (most general) of various possible systems for organizing the data available to him, a theory of language distinguishing various levels of syntactic representation, related among themselves by transformations, will provide a more suitable model for characterizing a speaker's linguistic competence than will one recognizing only one level, with its consequent complexity and loss

of generality.

There are many reasons for believing that deep structure and transformational rules are more than the arbitrary constructions of the linguist (though of course, any proposed deep structure or rule may be more or less arbitrary, depending upon the overall cohesiveness and generality of the grammar containing it). Though the methodological restriction is usually imposed that crucial arguments may only be drawn from within the dialect under investigation, it often results that the deep structure arrived at shows the investigated dialect to be more similar, at that level, to one or more other dialects than would appear on the surface; this is not a logical consequence of the theory. Such results are of considerable interest for cross-dialect study; dialects can be compared in terms of such coordinates as underlying order of constituents, different order constraints on transformations and the presence or absence of certain transformations or of the rule features associated with individual lexical items. The construction of 'idealized' dialects, containing at least some features of a group but not necessarily corresponding in all respects to any of them, may become an interesting tool of investigation.

The above considerations extend in a natural way to the comparative study of members of larger linguistic groupings. Thus, in its deep structure Ewe shares many features with other west African languages that are not immediately obvious, and usually

not susceptible to precise characterization, at the level of surface structure. A further result is that deeper levels of representation in the 'synchronic' grammar of a language often reconstitute, in part, earlier stages independently known to have occurred in the historical development of the language. Eventually, the notion of deep structure leads to the observation that languages, however great the variety of forms and constructions they present to naive observation, are highly constrained in terms of what may, or may not, be a deep structure, a lexical entry, a syntactic or phonological rule, etc. The theory of language is thus confronted with its most challenging task, that of determining the formal characteristics which delimit the class of 'possible human languages'.

In order to give the preceding concepts greater precision, we shall outline a theoretical framework to serve as a basis for subsequent discussion¹. A grammar consists of the following elements:

1. A phrase-structure (PS) grammar containing the elements V , \wedge , and \rightarrow , and satisfying the following conditions (among others):
 - i) V is a finite set of symbols called the vocabulary. Strings of symbols are formed by means of the binary (associative and non-commutative) operation of concatenation, symbolized ' \wedge ' (henceforth omitted).
 - ii) V consists of the two disjoint subsets V_t (the terminal vocabulary) and V_n (the non-terminal vocabulary). V_t contains grammatical formatives and the element Δ , while V_n contains the category symbols S, NP, etc.

iii) The relation ' \rightarrow ' ('is rewritten as') is diadic and irreflexive, defined on certain pairs of strings formed by concatenating symbols of V . The initial string, S^0 , is given; pairs (x,y) such that $x \rightarrow y$ are called the phrase-structure (PS) rules of the grammar.

iv) A symbol A belongs to the non-terminal vocabulary if and only if there are strings x,y,w (w is non-null) such that $xAy \rightarrow xwy$.

We add the further condition that the grammar be context-free:

v) All rules of the grammar are of the form $A \rightarrow w$, i.e. x and y are always null.

Given a set of rules

$$A \rightarrow x_1 w_1 y_1$$

$$w_1 \rightarrow x_2 w_2 y_2$$

⋮

$$w_{n-1} \rightarrow x_n w_n y_n$$

A is said to dominate w_n (and also to dominate itself); w_n is said to be dominated by A . If $n=1$ then A immediately dominates w_n . Any string S such that all its elements are dominated by A and A dominates no element not belonging to S is said to be exhaustively dominated by A , or more simply, to 'be' or 'have the function of' A . Any string of terminal symbols (or of the lexical items eventually to be substituted for them) exhaustively dominated by a single symbol A is said to be a constituent

of the symbol immediately dominating A.

A category is an equivalence class formed by all strings exhaustively dominated by a given non-terminal symbol A_i ; thus, a string w is a member of the category A_i if and only if w is an A_i .

2. A set T_i of (unordered) lexical substitution rules which substitute sets of (syntactic, semantic, and phonological) features, or lexical items, for occurrences of the terminal element Δ .
3. A set T_j of ordered syntactic (transformational) rules relating sequences of pairs of phrase-markers (labelled trees or bracketed strings of terminal elements or lexical items), the final phrase-marker being termed the 'lexical representation'.
4. A set T_k of ordered readjustment (transformational) rules, here to be termed 'morphological rules', which map lexical representations into phonological representations.
5. A set T_l of ordered phonological (transformational) rules, which map phonological representations into phonetic representations.

A transformation consists of two variable strings termed the structural description and the structural change which range over the phrase-markers of a derivation and establish the asymmetrical relation 'is transformed into' between contiguous pairs; conditions stateable in terms of the set-theoretical operations of union, intersection and complementation may be placed on the structural description.

A derivation consists of the generation of a lexical (or phonological, or phonetic) representation by the application of the rules of the grammar in accordance with ordering conditions.

The sequence of phrase-markers thus generated is itself called a derivation; if its ultimate member meets certain well-formedness conditions (e.g. the terminal symbol ' Δ ' may not be present in a final string), the derivation is called a syntactic structure.

The deep structure of a derivation is defined as the phrase-marker P_i such that P_{i+1} is formed by the first applicable syntactic transformation.

A derived structure is any phrase-marker formed by the application of at least one rule of the sets T_j , T_k , or T_l . In particular, surface structure will here be defined as the phrase-marker which results when the last applicable member of T_k has applied (for the last time, in the case of rules which apply cyclically) and when no member of T_l has applied, i.e. a bracketed **phonological** representation.

The transformational rules apply to the output of the phrase structure rules and in the following order: T_i , T_j , T_k , T_l .

Finally, a grammar contains a set of semantic rules each of which establishes a relation between a given pair 'deep structure, surface structure' and one or more semantic representations.

Many modifications in the above framework are conceivable, some of slight consequence for our purposes and others of more importance. In fact, the theory we

have outlined above has been shown to have many defects, although for the most part the problem of finding an acceptable revised version has proven very difficult. One of these defects is the fact that it is not sufficiently restrictive. Insofar as it is formally capable of characterizing languages with properties as yet unknown to any human language, it fails in its aim of defining the notion 'natural language'. In particular, it offers no principled basis for deciding among various alternatives currently proposed for dealing with a wide range of linguistic problems. For this reason, much current work is involved with the search for appropriate restrictive formal conditions to be placed on grammars², while other work, in particular that of Bach, has devoted itself to the search for substantive restrictions that can be imposed upon grammars, such as universal sets of transformations (major rules) from which each particular language must draw (at least part of) their rules.³

In other respects, the theory outlined above has proven too weak to account for many facets of linguistic competence. Proposals have been made for extending grammatical theory in certain ways to account for such factors as case relationships, focus, presupposition, scope of negation and quantifiers, coreference, etc;⁴ the problem has been that most proposals have weakened the theory too far. Two suggestions have attracted particular interest, one proposing the relaxation of the condition that all members of T_i must apply before any member of T_j , and the other advocating the elimination of the semantic rules altogether by identifying deep structure with semantic representation (thus making the semantic rules superfluous). Arguments in favor of the

first proposal consist of showing that at least one syntactic transformation must precede a lexical substitution. In our present study, we have found no need to relax this ordering condition, as the range of facts we discuss can be comfortably handled within the limits it imposes; this is not to suggest, of course, that future work may not reveal good arguments against it. It is more difficult to determine just what would constitute a solid case for or against the second proposal, although it now seems clear that it has genuine empirical content. In its strongest version, one which is stimulating much current research, it makes the claim that semantic representation is the appropriate level upon which to define all syntactic transformation, there being no intermediate level ('syntactic deep structure') before which no transformations can be syntactically motivated. It is probably too soon to evaluate whether good arguments can be put forward for this view, though at present there seem to be a great number of proposed transformations which appear to have no systematic syntactic significance, and thus one would want to maintain the more constrictive view as a working hypothesis.

The present study can provide no argument for or against this view ('generative' or 'autonomous' semantics), since the results of any particular investigation cannot be projected onto the general theory of language: it is at least logically possible that one language might have a syntactic deep structure while another does not. However, we have held to the more constrictive view ('autonomous syntax') not only on methodological grounds, but also because there is some indication that it is more strongly motivated

for Ewe (on the basis of what is still, admittedly, superficial investigation). Thus, to take an example, we assign a unique deep structure to the noun phrase

kofí wó ábó 'Kofi's arm'

even though this phrase, like its English gloss, is ambiguous as between alienable and inalienable readings, and would therefore be required by generative semantics to have two distinct deep structures; again, it is possible that future investigation might discover systematic syntactic consequences of this (for us) semantic distinction, thus justifying - in this case - the distinct deep structure analysis.

*

We now turn from theoretical questions to matters of notation. Let us first consider our transcription.

Like the standard orthography itself, the transcription system we use is broadly phonetic. However, we have departed from a strictly phonetic representation when maintaining it would have meant obscuring the identity of the formatives involved. Those readers familiar with standard orthography should have no trouble reading it; for the others, a few comments are in order.

1. We retain the underlying form of a formative whenever the formative would be lost in a phonetic transcription representing colloquial speech at a deliberate but natural pace. This principal, shared by the standard orthography, applies largely to grammatical formatives consisting of single vowels, e.g.:

transcription

gà à [gà] 'the money'

where the single vowel /a/ is the definite article. We make an arbitrary exception for the first and second person subject pronouns followed by /a/, again following the standard orthography:

transcription

/mè-à-vá/ mà-vá 'I shall come'

2. While an /e/ is usually assimilated to a following /a/ (see Chapter 1.6), it is retained in the transcription, except as noted above:

transcription

ě-lè àfíl [ělàfíl] 'he is here'

ě ágbò òlè-gé [ěágbò òlègé] 'he's going to
buy a ram'

3. Anlo (unlike other described dialects) has a rule of Vowel Closing which raises /o/ to /o/ and /a/ to /e/ in verbs standing immediately before their direct object:

transcription

me-kpó kofí [mekpó kofí] 'I saw Kofi'

In the transcription, this rule is disregarded.

4. Our transcription will also disregard the effects of another vowel change rule which carries out the following changes when the second of two vowels is a clitic:

transcription

dyí-ì	[dyíì]	'seek it'
bù-ì	[bùì]	'move it'
kpé-è	[kpíì]	'meet him'
kò-è	[kùì]	'laugh at him'
ná-è	[néè]	'give it'
tsó-è	[tsóéè]	'take it'

The two clitic vowels /i/ and /e/ are seen to be in complementary distribution in our transcription (as in the standard orthography), /i/ occurring after high vowels and /e/ occurring elsewhere. They are reflexes of a single deep phonological segment.

5. An 'intrusive' [e] or [e] is frequently observed to occur in Anlo after a [u] or [i] in certain syntactic environments. This form is not noted in the transcription, though the phonetically similar topicalizing particle, having a grammatical function, is not omitted:

transcription

èdyì dzò ì [èdyìè dzòì] 'I'm happy'

compare:

kétá é wò-yì dó 'He went to Keta'

For the phonetic values of the symbols used, see Chapter 1. We depart from the practices of standard orthography chiefly in two respects: first, we use

hyphens to separate affixes and clitic syllables from the stems to which they are attached, and second, we mark the tone of all vowels, except for those examples we have taken from Standard Ewe.

Apart from a phonetic alphabet, we shall need several abbreviatory devices and other symbols in the statement of examples and rules:

Braces { , } serve two functions. In the statement of rules, they may be used to collapse two or more rules which share part of their structural description. Thus, an expression of the form

$$X \left\{ \begin{array}{c} Y \\ Z \end{array} \right\} W$$

is an abbreviation of the two strings

1. X Y W
2. X Z W

in that order (in the case of ordered rules). In the statement of examples, braces may be used to form sets of synonymous expressions, e.g.:

$$\left\{ \begin{array}{l} \text{dyl dzò ì} \\ \text{me-kpó dyldzò} \end{array} \right\} \quad \text{'I'm happy'}$$

Parentheses (,) also serve two functions. They may be used to indicate optional items in structural descriptions, thus

$$X (Y) Z$$

is an abbreviation of the two strings

1. X Y Z
2. X Z

in that order. They may also be used to indicate optional items in examples, i.e. items which may be omitted with no change in meaning:

mè(-lè) hà dyl-m 'I'm singing a song'

The swung dash ~ indicates morphological alternants:

/ gà ~ gá / (the repetitive preverb)

Over a vowel, it indicates nasality: /alétsú/ 'ram'.

Diagonals / , / are used to represent underlying (lexical or phonological) representations; they will also be used for enclosing lexical features (rule features, semantic features, syntactic features, phonological features): /+Punctual/. Square brackets [,] are used to represent phonetic representations, and also to separate the constituents of phrase-markers (in which case they are usually labelled):

[[nyè] háá] 'me too'
NP NP NP NP

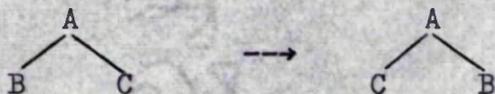
The asterisk * will indicate sentences characterized by the grammar as ungrammatical. Apostrophes ' , ' are used to enclose English glosses of Ewe examples. The double cross # is sometimes used to indicate one or more word boundaries:

kofí # vá # égbè 'Kofi came today'

The single cross + is occasionally used to show formative boundaries when no word boundaries are present:

me + kpó + è 'I saw him'

The solid arrow \rightarrow indicates the relation 'is rewritten as' in PS rules. The broken arrow \dashrightarrow indicates the relation 'is transformed into' in transformational rules; it is also used to show that two particular phrase-markers or two sentences are transformationally related:



We have selected examples from a wide variety of types of discourse: everyday conversation, greetings, descriptions, tales, songs, proverbs, and the written literature. This is possible because by and large the same formal structure underlies all of them. For the examples from published literature we have drawn from two Anlo writers: F. Kwasi Fiawoo, Toko Atōlia (which we shall abbreviate TA) and Lily Baëta, Miaæe Gbe Abgalē Gbāto (abbreviated MG).

THE ANLO DIALECT: A BRIEF SKETCH

1. The Ewe Dialect Cluster. Ewe [èèè] is the name given to a cluster of dialects and dialect groups spoken, roughly, between the Volta River in Ghana and the Weme River in Dahomey, from the coast to an average distance of some 200 km. inland.¹ Greenberg (1963a, 1966) classifies Ewe within the (Western) Kwa subgroup of Niger-Congo, thus relating it most closely to such languages as Akan, Gã-Adangme, and the Togo Remnant languages. No described Ewe dialect, however, has been shown to possess the characteristic morphological trait of Niger-Congo, the system of noun classes and concord prefixes, nor does any described dialect have the cross-height vowel harmony characteristic of many Kwa languages.² The present

classification of Ewe within 'Kwa' rests largely on the root correspondences established by Westermann (1907, 1911, 1927); but his proposed phonetic correspondences have not met with universal acceptance. For the current status of the Kwa problem, the reader is referred to Stewart (1971).

2. Dialect classification. In his first attempt at dialect classification (1905), Westermann set up two major divisions, based on regular consonant alternation:

1. Western Dialects
 - i) Anlo (single dialect)
 - ii) Western Interior (dialect group)
2. Eastern Dialects
 - i) Anexo
 - ii) Dahomey

(Westermann 1905.*28). The main phonetic and grammatical characteristics of these dialects are outlined in Westermann 1907.1 - 36, 132 - 41.

Westermann's 1930 grammar presents a reanalysis of the dialect distribution (this section, p. 197ff., is not present in the original German edition):

1. Western Dialects (as before)
2. Central Dialect (Gẽ or Anexo)
3. Dahomey Dialect
 - i) Fõgbe
 - ii) Ogunu (or Gu, Alada)

He adds that 'while the Western and Central Sections are so closely connected that the people of one section can easily understand those of another, the Eastern Section is linguistically farther distant. Anexo is an intermediate stage, as it were the connecting link, between the Western and Eastern sections' (p. 198).

In 1954, a further revision of this schema is presented, in which three major divisions are established:

1. Western dialects (as before)
2. Central dialects
 - i) Gě (Mina)
 - ii) Watyi
 - iii) Adya
3. Eastern dialects
 - i) Fõ (Fõgbe)
 - ii) Gũ
 - iii) Maxe

(see the dialect map prepared by O. Köhler in Westermann 1954, reprinted in Hintze 1959). These divisions correspond, very loosely, to modern political divisions, the Western dialects being spoken largely in Ghana, the Central dialects in Togo, and the Eastern dialects in Dahomey. It should be added that dialect investigation has only begun to be carried out in a systematic fashion, and very little has yet been published about the dialects of the large part of the Ewe-speaking area.

3. The development of Standard Ewe. Due to a number of sociological, economic, and political - but not linguistic - reasons, Anlo [ànlò] was at an early date singled out for pre-eminence among the dialects of the former German colony of Togoland. The factors which contributed to the selection of Anlo as a basis for the creation of a Standard Ewe in these areas have recently been discussed by Ansre (1971). He points out that Anlo was subjected to linguistic investigation by the missionaries of the Norddeutsche Missions-Gesellschaft of Bremen as early as the mid-nineteenth century. Their first permanent base of operations was established at the coastal town of Keta in 1853; subsequently, centres were established at Anyako (1857), Woe (1887), and Dzelukofe (1888).³ Ewe was the principal medium of religious instruction, and Anlo was the dialect selected for development. Ansre cites evidence showing how the German Colonial Office, shortly after the turn of the century, appears to have taken an active part in developing and propogating a literary language for a variety of commercial, administrative, and religious reasons; and Anlo was selected as the basis of this literary language.

In a detailed study of church activity during this epoch, Debrunner mentions certain factors which suggest an explanation for Germany's linguistic vocation at this time.⁴ The Bremen mission was an important instrument in the dissemination of German influence in Togo (though this aspect of its activities was quite incidental to what it regarded as its main purpose and was energetically resisted by its Inspector Zahn). Through its instruction in basic skills and

handicrafts and the promotion of the European conception of industry and efficiency, it contributed in an important way to the opening up of the new colony to economic exploitation (p. 104-7).⁵

Germany entered into a 'regular race' for conquest with Britain and France.⁶ The Basel Mission, based in the Gold Coast, had been expanding into Togoland. Accordingly, 'the German officials did their best to promote the German and Ewe languages; they feared lest teaching in Twi and English would strengthen the influence of the Gold Coast, which they tried with all their strength to undermine. (...) The Basel Mission would not and could not start training German-speaking assistants, nor could it make up its mind to teach the Ewe language. So the district of Kpando, Nkonya and Buem was relinquished to the Bremen mission, which between 1903 and 1906 took over one out-station after another' (p. 109). Before long, this policy was successfully extended throughout the colony, and strict orders were given that only Ewe and German were to be taught in schools (p. 113).

In this way Anlo was elevated to the status of a Standard Dialect throughout the Ewe-speaking areas of the then German colony. The Bible translation, as revised by Jacob Spieth, Ludwig Adzoklo and others in 1914, and Westermann's Wörterbuch (1905) and Grammatik (1907) became the standard sources of correct usage, and this form of the language (with some modification, particularly in the orthographic system) has been the basis of school instruction in Ewe to the present day. It provides a common means of communication for speakers from all areas of the Western dialect zone.

It is no means the case, however, that the Standard Ewe taught and spoken today is identical to Anlo. Ansre (op. cit.) notes that 'what is known today as Standard Ewe has developed from the Anlo dialect together with a good deal that has been incorporated from the Inland dialects'. Similarly, Westermann (1954.X) remarked that 'in its vocabulary and in its acceptance of striking expressions from the common stock (Volksgut), the literary language has continually enriched itself from the dialects of the Western interior'. The tonal analysis of the language, as well, has taken the somewhat simpler system of the interior dialects as its basis. To this extent, then, Standard Ewe is a hybrid form; it does not correspond in all aspects with any single dialect. Speakers tend to use it for public speaking and other formal occasions, and revert to a colloquial dialect for day-to-day purposes.

The present study is not a study of the literary dialect but of colloquial Anlo, as it is spoken in the area of Keta lagoon (in 'Anlo Proper'). Field work was undertaken in Anyako, a village of some 5,000 residents situated on the north shore of Keta lagoon.

According to the 1960 census, the population of Anlo-speaking areas numbered at that time somewhat more than 230,000, or nearly half of the Ewe speakers of Ghana.⁷ The total population of Ewe speakers in Ghana and Togo has been estimated at 1,200,000 (B.W. Hodder, n.d.) or 1,100,000 (Nukunya) on the basis of the 1960 census.

4. Modern Ewe linguistics. Ewe linguistic investigation has taken place in two phases. The first corresponds to the effort of creating a Standard Ewe by the members of the Bremen Mission, and includes a good deal of purely descriptive work of high quality. The dominant figure is that of Westermann, whose two monumental dictionaries (1905, 1954) span his active career as a linguist. Other studies include his grammar (1907, English translation 1930⁸), a study of instrumental phonetics (1917, based on the speech of an informant from the Western Interior dialect of Tove), a monograph on Ewe morphology (1943), and a brief learner's guide (1939, reprinted 1961). There is also a short but instructive grammar of the Gě dialect by Westermann's student Schroeder (1936).

The Eastern dialects have not been so well treated. To date there have appeared several grammars of Fõ, most of slight linguistic interest. Delafosse (1894) is the most thorough of those we have seen; Alapini (1950, revised edition 1969) is practically worthless. There is also an unpublished Fõ-French dictionary (Segurola 1963).

It is rather surprising that none of the above-mentioned works concern themselves with the Anlo dialect as such, in view of its importance as the basis of the Standard dialect. Henrici (1891) includes some Anlo texts, but there is only one, rather poor full grammar (Seidel 1906). Berry's study (1951) of Anlo pronunciation is the only thorough description of Anlo phonetics, and it is for this reason of considerable value, although its discussion of tone is inadequate.

Extensive bibliographies for all dialects, including not only grammars but word-lists, texts, and some modern literature accurate up to the mid-fifties, can be found in Westermann 1954 and Hintze 1959. The Bureau of Ghana Languages has published a bibliography of modern publications in Ewe and other Ghanaian languages (1967), and a hopefully complete bibliography of works in and on the Ewe language is currently in preparation at the University of Ghana at Legon.

The second phase of investigation has been concerned largely with providing descriptive studies based on developments in structural and transformational linguistics. Its initial motivation, as Ansre explains it, 'had to do partially with fundamental features like phonemics and morphophonemics and partially with preparing pedagogical material for English speakers going to Ghana and Togo' (Ansre 1963a.112); it might be added that an increasingly important application of these investigations has been the teaching of Ewe in Ghanaian schools. Among the more important studies of recent years have been Ansre's studies of tonal structure (1961) and grammatical units (1966b), and several papers on tone, morphology and syntax (1963a, 1963b, 1966a). Other important recent monographs are Robert Sprigge's description of tone in the Adangbe dialect of Togo (1967), Neil Smith's transformational study of the tonal system described by Ansre (1968), and a cross-dialect survey of the vowel system by Kevin Ford (to appear). Work in the generative phonology of Ewe (Kpando dialect) has been undertaken by Stahlke (1971; in preparation).

Of pedagogical grammars, Baëta (1962) is noteworthy both for its pertinent linguistic arguments and certain formal innovations, while Obianim (1964/7), currently in use as a school text, is of interest for its inclusion of adaptations of traditional poetry, with paraphrases into Standard Ewe. Banini (n.d.) and Warburton et al. (1968), the latter a training manual for U. S. Peace Corps volunteers, have little to add to previous work, from a purely linguistic point of view.

In the following sections we shall review some of the principal phonological and syntactic characteristics of the Anlo dialect, indicating major points of difference from the Standard Dialect.

5. The Anlo Vowel System. There are seven surface vowels in Anlo:

i	u
<u>e</u>	o
e	<u>o</u>
a	

The vowel represented as [e] is an unrounded, central, half-open vowel, which shows a good deal of variation in height and frontness. Among the described Ewe dialects, this phone is known only to Anlo and to Adangbe (see Duthie, 1967). The vowel represented as [e] is somewhat higher than Cardinal Vowel 2. This phone corresponds systematically to the half-open [ɛ] of the Western Interior dialects, and is represented as such in the standard orthography.

All vowels but [e] and [o] may occur with nasalization; even the latter may be nasalized as a result of low-level assimilation rules. Nasality is only occasionally distinctive in Anlo: [èdà] 'bow' [èdã] 'snake'.

Tone: All vowels occur with an underlying tonal feature, either high or non-high; a few nasals as well are syllabic and have underlying tone. Falling and rising tone are analyzed as sequences of two (eventually even three) level tones, represented as sequences of vowels. Thus, in underlying (lexical) representation we have such tonal distinctions as the following:

tó	'mountain'
tòó	'mortar'
tò	'buffalo'
trée	'calabash'

In the Anlo dialect, rising tone is infrequently realized as such at the phonetic level. Subdialects differ among themselves on this point. Thus, in Anyako, underlying rising tone is realized as a half-long level tone in the citation form of all nouns:

<u>underlying</u>	<u>phonetic</u>	
tòó	eto·	'mortar'
gòó	ègò·	'gourd'
àfòkpàá	afokpa·	'shoe'
àgbàlèé	àgbàlè·	'book'

For Keta speakers, however, rising tone may be realized as such in nouns beginning with voiced obstruents:

<u>underlying</u>	<u>phonetic</u>
tòó	etoo
g̀óó	èg̀óó
àfòkpàá	afokpaa
àgbàlèé	àgbàlèé

The tonal phonology maps the two underlying tones, high / ' / and non-high / ` /, into four surface level tones: raised ["], high ['], mid (unmarked over vowels, [-] over syllabic nasals), and low [`]. These tones may give rise to lexical distinctions such as the following:

nũnyá ^á lá	'washman'
núnyá ^á lá	'wise man'
núkú	'seed'
nukú	'wonder'
mamá	'grandmother'
mà ^á má	'division'

Downstep, a slight drop in pitch between adjacent identical tones, occurs in Anlo with two functions: first, to mark the elision of an underlying tone:

<u>underlying</u>	<u>phonetic</u>
mè é wù-gé	me 'wu-gé 'I'm going to kill him'

and secondly, to mark the end of a sentence or utterance, provided it terminates with at least one underlying low (non-high) tone. Minimal distinctions are marginally possible as a result:

<u>underlying</u>	<u>phonetic</u>	
ḅòó	èḅò·	'door'
ḅò	è'ḅò	'python'

mè-kpó ɓ̀òó me-kpó ɓ̀ò· 'I saw a door'
 mè-kpó ɓ̀ò me-kpó 'ɓ̀ò 'I saw a ~~door~~ python'

We have indicated actual phonetic tone on all our examples, but in general we have not marked downstep.

In its surface system, Anlo varies considerably from other described dialects, but its underlying system appears to be quite comparable.

6. Vowel Assimilation and Degemination. We shall not in general be concerned with phonological questions. However, Anlo has two rules operating on certain vowel sequences which will be important to subsequent discussion. The first of these, at least, has been recorded in other dialects:

Assimilation of /e/ to /a/: An /e/ becomes /a/ before another /a/, retaining its original tone.

Degemination: Two successive vowels holding all features (including tone) in common are reduced to one.

Both rules are optional if one or more word boundaries intervenes between the vowels, otherwise obligatory. These two rules may apply together in the order given to certain phonological representations:

	/ àpé á mè /	'in the house'
1.	á	Assimilation
2.	∅	Degemination
	<u>àpámè</u>	

These two rules are said to be in a feeding relationship, since the first creates representations upon

which the second may operate (Kiparsky 1968).

Both rules are obligatory in the case of a subject pronoun followed by a tense formative; thus we have derivations such as

	/ mè à-dzó /	'I'll leave'
1.	à	Assimilation
2.	∅	Degemination
	<hr/>	
	màdzó	

	/ è à-dzó /	'you'll leave'
1.	à	Assimilation
2.	∅	Degemination
	<hr/>	
	àdzó	

Some Anlo speakers have a rule characteristic of the Inland dialect described by Smith (1968:298). For these speakers, the future tense marker /à/ acquires high tone between two non-high tones. As this rule precedes degemination, these two rules are in a bleeding relationship, since the future-raising rule removes representations upon which degemination could operate:

<u>Speakers A</u>	<u>Speakers B</u>	
/ mè à-yì /	/ mè à-yì /	I'll go'
1.	á	Future-raising
2.	à	Assimilation
3.	∅	Degemination
	<hr/>	
màyì	màáyì	

As assimilation is obligatory for the subject pronouns,

we shall suppose that there is a rule removing word boundaries between them and the first member of the following verbal complex. In this sense, we may say that the subject pronouns are phonologically clitic (see Appendix B for further discussion of this and alternative analyses of the reduced pronoun forms).

7. The Consonant System. Following is an inventory of the surface consonant segments of Anlo, based on the reports of instrumental work presented in Westermann 1917 and Duthie 1967:⁹

Surface Consonants in Anlo

	stops		affric		fricat		sonor	
	-v	+v	-v	+v	-v	+v	+nas	-nas
bilabial	p	b	ts	dz	ɸ	β	m	w
labio-dental					f	v		
denti-alveolar:								
distributed	t	d	ts	dz			n	l
non-distr.		ɕ						r
alveolar					s	z		
palatal			ty	dy			ny	y
velar	k	g					ɳ	ŋ
labio-velar	kp	gb						
post-velar					x	h		

Notice that the palatal affricates, which result from palatalization of /ts/ and /dz/ before /i/ in the Western Interior, have no uniquely traceable underlying source in Anlo where /t/ and /d/, as well, are always palatalized before /i/. Since there is

no way of determining, on the basis of internal evidence, whether such a sequence as [dyi] results from the palatalization of underlying /di/ or /dzi/, we use separate symbols for the palatal affricates in the transcriptions.

In summary, the Anlo system of surface phonology is to a large extent similar to that of Standard Ewe as it has been described to now, and to most of the described Interior dialects. The main points of difference seem to lie in its more complex system of tonal rules, utilizing four surface tones and downstep, and in certain rules of vowel sandhi not so far known to other dialects. For a more complete discussion of Anlo phonetics, the reader is referred to Berry; more thorough-going phonological analyses of Ewe can be found in Westermann 1907, Ansre 1961, Smith 1968 and Stahlke (in preparation).

8. Grammatical characteristics. In grammatical characteristics, as well, Anlo does not show great deviance from Standard Ewe, and speaking quite generally we may say that all the members of Westermann's Western dialect group fall into the same typological class. We shall consider them all together in this section, though our citations will all be from Anlo.

Unlike the Togo-Remnant languages, to which it is thought to be related, Ewe has no system of noun class distinctions. Thus, although the noun prefix /a/ contrasts with the prefix /è/ in Anlo,¹⁰ this contrast has no consequences elsewhere in the grammar and cannot be said to articulate a noun class system, at least in the present-day language.

Anlo and the Western dialects have no system of inflection, whether in verbal or nominal morphology. Rather, the relevant grammatical distinctions are made through the use of separate formatives adjoined to lexical stems, usually in a fixed order. One consequence of this is that the grammar is free of declensional and conjugational classes. Insofar as grammatical formatives are present to represent grammatical categories, however, Ewe departs from the ideal type of the 'isolating' languages with which it is usually classified (Westermann 1905, Meriggi 1933, Greenberg 1963a).

The Western dialects have no overt system of case-marking. Instead, it has two grammatical categories associated with nouns which, taken together, tend to serve a parallel function. These categories, the prepositional verb ('verbid') and the postpositional noun, will be discussed more fully in Chapter 6; for the present, a few examples will indicate how the system functions:

é-lè xò mè 'It's in (the) house'
 be house in

Here, the verb /lè/ indicates location in a place, while the postpositional noun /mè/ may roughly be translated as 'interior'; thus a more literal gloss of the example would be 'it is in the house's interior'. Directionality may be expressed by adding the prepositional verb /qé/:

é-yi qé xò mè 'He went into the house'
 go

'Motion from' may be expressed by the prepositional

verb /tsó/ in combination with an appropriate postpositional noun:

me-gé-e tsó kofí gbó 'I borrowed it from Kofi'

Here, /gé/ 'borrow' is the main verb, and the postpositional noun /gbó/ might be translated 'side' or 'vicinity'; taken as a pair, the prepositional verb and the postpositional noun here indicate that the noun is an animate 'source'. It will be apparent that this system is capable of creating fine semantic distinctions.

In the absence of these items, grammatical relations among nouns are expressed through the relatively fixed order of constituents: S - V - O - IO (subject, verb, direct object, indirect object). Thus we find:

me-ná áhà wó 'I gave drink to them'
give drink them

In the next section we shall take up the question of the underlying order of constituents, which is not necessarily the same, of course, as that observed in surface structures.

The following formatives distinguish the principal grammatical categories of the noun phrase:

/ lá~á/, the definite article, which follows the head noun, indicates that previous mention has been made of it, and is obligatory in such a case. The more usual form in Standard Ewe is /lá/, while colloquial Anlo prefers /á/:

akoḍú 'banana'
akoḍú á 'the banana (in question)'

/áǎé/, the indefinite article, indicates that a particular member or members of the class of things referred to is intended, and that this particularity is relevant to the discourse situation. The initial vowel /á/ assimilates in tone to the vowel which precedes it (and, in the standard orthography, is written together with it):

akoǎú áǎé 'a (certain) banana'

The absence of an article indicates that it is unmarked with respect to previous reference and particularity:

ě-ǎle akoǎú 'he bought banana(s)'

/wó/, the plural formative, is used only when plurality is considered relevant, and is not otherwise clear from the context (see Westermann 1947):

akoǎú wó 'bananas'

ě-ǎle akoǎú èvè 'he bought two bananas'

The articles, as well as the demonstratives /'hìá/ 'this', /má/ 'that', etc., precede the plural formative, which in turn precedes any noun phrase modifier:

akoǎú á wó kátǎǎ 'all the bananas'

The pronominal system, to which we return in Chapter 4, makes no gender or animacy distinctions. For reference, we give here the reduced (joined) forms of the subject and object series; these remain constant through the various verbal tenses, apart from low-level phonetic assimilation.

subject forms

	<u>sing</u>	<u>plur</u>
--	-------------	-------------

- | | | |
|----|----|-----|
| 1. | mè | míé |
| 2. | è | mìè |
| 3. | é | wó |

object forms

	<u>sing</u>	<u>plur</u>
--	-------------	-------------

- | | | |
|----|----|----|
| 1. | ḡ | mí |
| 2. | wò | mì |
| 3. | è | wó |

These forms are identical to those of Standard Ewe.

9. Basic order. In his paper on language universals (in Greenberg 1963b), Greenberg suggested that an order typology could be based on the following four characteristics:

- i) relative order of subject, verb, and object
- ii) presence or absence of 'postpositions'
- iii) relative order of genitive noun and governing noun
- iv) relative order of adjective and noun

He placed Ewe in his Basic Order Type 16: languages which obey the basic order SVO, which have postpositions, in which the genitive noun precedes the governing noun, and in which the adjective follows the noun. The last three points seem so far relatively free of controversy; we shall examine here the validity of the classification of Ewe as a SVO language.

The superficial order of the constituents of simple declarative sentences in Ewe is subject, verb, object:

kofí tù xò 'Kofi built a house'
build

General questions have the same form, simply marking the interrogative with a sentence-final /à/:

kofí tù xò à 'Did Kofi build a house?'

It is at least possible, however, that this order is not basic but is derived from a more fundamental order by a movement rule. Let us examine some possibilities:

- OSV structures are observed in the language, as when an object is followed by the interrogative marker /kàá/ to form specific questions, or when it is followed by the topicalization marker /é/ or any of several other markers (including the relative marker):

nũ ká é kofí tù 'What did Kofi build?'
thing

xò e wò-tù 'He built a house'

These are the only structures providing direct evidence in favor of a basic OSV order. They do not allow one to make a strong case, as they can be accounted for by supposing that Ewe has interrogative, topicalizing and relativizing movement rules which shift marked NPs to sentence-initial position. This analysis is supported by the fact that these same rules will correctly generate structures in which not only direct objects, but also oblique objects and adverbial objects (the latter normally occurring to the

right of any other object) are front-shifted:

ame hi kofí tu xò ná 'the person who Kofi
REL for built a house for'

(le) xò me e wò-wò dò dó 'He worked indoors'
do work

(in the latter example the final element, /dó/, is an alternant of the prepositional verb /dè/ indicating directionality, p. 31 above).

- SOV structures are attested:

kofí (lè) xò tù-m 'Kofi's building a house'

kofí pé xò-tu-tu 'Kofi's house-building (as-
tonished me)'

On the basis of such structures, which we shall examine more closely in Chapter 3, we might propose that Ewe has a rule inverting the underlying order OV, except in certain specifiable structures. We shall see, however, that a rule accounting for these structures - and other related forms - can be defined on a simple syntactic environment, if we suppose that the underlying order is SVO. If we suppose the contrary, the inversion rule would have to be defined upon a negative environment, stating just those structures, such as the two examples above, where the rule does not apply. As far as we know (and we stand open to correction) it has never been shown that a language must have negative-environment syntactic rules in its grammar, a fact which argues for a general constraint against including such rules in the grammar of any particular language when alternate analyses are available. Thus in this case, the fact that a SOV analysis would entail a negative-environment rule is a good argument

against it. There appear to be no further syntactic arguments in favor of the SOV analysis. We might point out that it runs counter to certain interesting hypotheses about language structure:¹¹

- i) SOV languages do not have rules moving NP's to the left when they contain the specific question ('WH') marker or the relative marker.
- ii) no languages with the underlying order SOV can change to superficial SVO (or VSO).
- iii) the relative order of the auxiliary verb in relation to the main verb mirrors the relative order of the main verb and the object.

- No VSO structures are attested. Most of the syntactic rules which have been cited as evidence for this analysis for languages like English (McCawley 1970; but see also Emonds, to appear), such as Raising, Passive, Dative-movement, and there-insertion, have no parallel in Ewe.

- No VOS or OVS structures have been observed.

It seems, therefore, that the case for Ewe as a SVO language is very good, and that Greenberg's classification may be provisionally accepted.

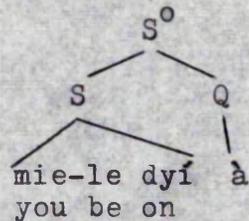
THE AUXILIARY SYSTEM: TENSE AND ASPECT

In this chapter we propose a simple phrase-structure grammar of Ewe. We then examine in detail the elements composing the auxiliary complex and their mutual relationships.

1. A phrase-structure grammar. The following system of seven phrase-structure (PS) rules is proposed, to be developed and expanded as necessary in later chapters.

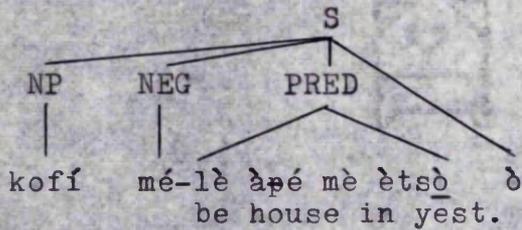
1. $S^{\circ} \rightarrow S (Q)$
2. $S \rightarrow NP (NEG) PRED$
3. $PRED \rightarrow AUX VP (ADV)$
4. $VP \rightarrow V (NP (NP))$
5. a. $NP \rightarrow \left\{ \begin{array}{l} (NP \left\{ \begin{array}{l} \text{pé} \\ \text{wó} \end{array} \right\}) N (DET) (wó) \\ S^{\circ} \end{array} \right\}$
- b.
6. $DET \rightarrow \left\{ \begin{array}{l} ART \\ DEM \end{array} \right\}$
7. $AUX \rightarrow (T) (P)^* (A)$

PS rule 1 develops the sentence of origin S° into a sentence S and an optional question marker Q to its right. If Q is a constituent of the highest sentence, it is realized as /à/:



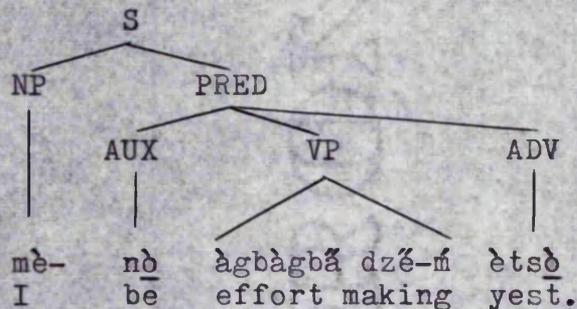
'Are you well?'

PS rule 2 develops S into a noun phrase NP followed by an optional negative marker NEG and a predicate phrase $PRED$. In surface structure, negation is realized by the discontinuous pair of elements /mé...ò/ which 'frame' the predicate phrase:



'Kofi wasn't at home yesterday'

PS rule 3 defines the predicate phrase as consisting of an auxiliary constituent AUX, a verb phrase VP, and an optional adverbial constituent ADV (in a complete grammar, more than one ADV would be provided for). Among other things, this rule accounts for the fact that auxiliary verbs precede the verb phrase:



'I was making an effort yesterday'

PS rule 4 is a condensed statement of three rules expanding the verb phrase:

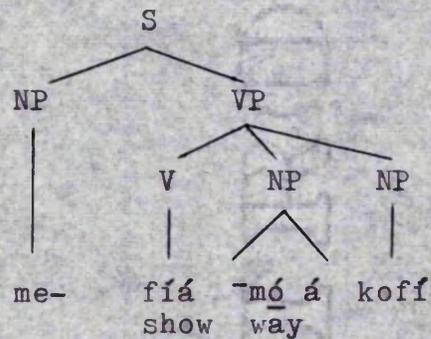
VP → V NP NP

VP → V NP

VP → V

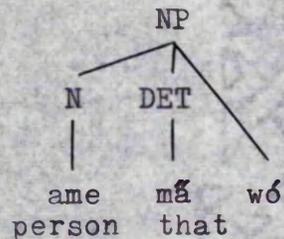
These provide syntactic frames for ditransitive, transitive and intransitive verbs respectively. In the condensed statement, one parenthetical element (the second noun phrase) is enclosed within the first: thus, the second NP can only be generated

if the first is generated. PS rule 4 will account for the fact that a main verb regularly precedes its object(s):¹



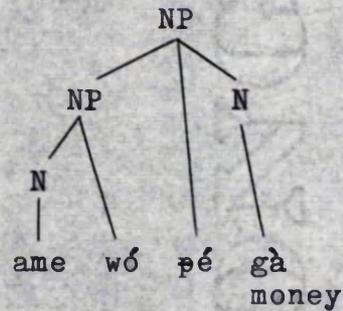
'I showed the way to Kofi'

The two cases or subparts of PS rule 5 given two variant expansions of the noun phrase. Case (a) expands the noun phrase into a noun N flanked by three optional elements: a preceding possessive sequence consisting of a NP followed by one of the genitive markers /pé, wó/; and a following determiner DET and a plural formative /wó/. Thus if in the expansion of NP we select a noun followed by a determiner and a plural formative, we will have structures such as:



'those people'

On the other hand, if the possessive modifier phrase is selected with the noun, we might have a structure such as the following:



'people's money'

(Observe that case (a) of this rule allows unlimited left-branching recursion of NP; thus, a NP may contain any number of successively embedded possessive modifiers.) Case (b) of this rule provides that a noun phrase may generate a new sentence of origin. This rule will permit the formation of embedded sentences, to which we return in Chapter 6. PS rule 6 states that the determiner may be rewritten as (consists of) either an article or a demonstrative. Together, PS rules 5 and 6 account for the structure of the noun phrase as far as it will concern us here (for a more detailed exposition, the reader may consult Ansre 1966b).

PS rule ⁷8 defines the membership of the auxiliary complex: a single optional 'tense' element T, zero or more bound preverbs P, and a single optional 'aspect' element A. It should be emphasized that the labels 'tense' and 'aspect' are intended merely as mnemonic devices; there is little semantic basis for a distinction of tense and aspect in Anlo Ewe, as we shall see in the sections that follow. The categories T, P, and A have been set up on the basis of syntactic criteria alone and are not intended as direct semantic representations.²

2. Tense. We now continue to develop our PS grammar of Ewe by adding the following rule expanding T:

PS rule 8. T \rightarrow $\left\{ \begin{array}{l} \acute{a}\grave{a} \\ \acute{n}\acute{a}_1 \\ \acute{n}\acute{a}_2 \end{array} \right\}$ 'future'
 'habitual'
 'progressive'

We discuss each of these in turn, beginning with zero tense, i.e. the absence of tense.

The unmodified verb stem is semantically unmarked for tense, mood, and aspect, although it often is interpreted as bearing past time meaning:

wó-dzó leave	'They left'
wó-yì àpé mè go home in	'They went home'
mè-dyì hà sing song	'I sang a song'

Anlo does not make a formal distinction between present and past time in its auxiliary system. The unmodified form of the verb may refer either to past or present time, depending on the context. However, the possibility of ambiguity is substantially reduced by the fact that many verbs - such as the three given above - permit only a past time interpretation when unmarked for T. We shall suppose that this is due to the presence of an inherent semantic feature which we may call /+Punctual/ time reference. Another class of verbs is inherently marked as /-Punctual/, and these are systematically ambiguous when unmarked for T:³

me-nyá-è know	'I know/knew it'
ě-lòlò be-big	'It is/was big'

me-bé vâ say come	'I say/said "come"'
ě-nyé -núfiálá be teacher	'He is/was a teacher'

Many verbs which are /+Punctual/ in their literal meanings become /-Punctual/ in certain idioms:

mè-xò-è sè get hear	'I believe/believed it'
ě-dze nu-nyè reach eye my	'I like/liked it'
wó-ǫǫ nkú ě dyí set eye its top	'They recall/recalled it'

Finally, with the verbs /dzó/ 'leave', /yì/ 'go', the unmodified form of the stem may express the immediate intention of the speaker:

me-dzó	'I'm leaving'
mè-yì	'I'm going'

The future form of the verb is preceded by the formative /áà/ after nouns, /à/ after pronouns:

kofi áa-dzó	'Kofi will leave'
mí-a-dzó	'We'll leave'
wó-à-yì àpé mè	'They'll go home'

With pronoun subjects, a preceding /e/ is assimilated to the /à/ by the rule given in Chapter 1.6:

mà-dzó (mè-à-dzó)	'I'll leave'
à-dzó (è-à-dzó)	'You'll leave'
ǎ-a-dzó (ě-a-dzó)	'He'll leave'

The future characteristically refers to events which are anticipated, but not certain to occur. With first person subjects, it indicates the intention of the speaker (in declarative sentences) and a request for permission (in questions):

mà-dzó fífíá 'I'll leave now'
now

mà-dzó fífíá à 'May I leave now?'

With second person subjects, the situation is just the reverse: permission is granted in declarative sentences, and the intention of the addressee is sought in interrogatives:

à-dzó fífíá 'You may leave now'

à-dzó fífíá à 'Are you leaving now?'

The future is also frequently used to express a supposition on the part of the speaker:

me-bu bé á-a-nyé tsalí srò 'I think it must
think that be wife be Tsali's wife'

In descriptive narrative, the future may describe habitual action, especially after a conditional; thus the speaker puts the addressee in the position of one about to undertake the action in question:

ně àvè à wó sò gbò fúú a, à-té nú á-đó-e nénémá
if marble be-many very be-able set that-way

'If there are plenty of marbles, you can set it up like that'

(see further examples in Westermann 1930.119). The future is formally distinct from the subjunctive, which will be discussed in Chapter 5.

The habitual form of (underlying high-tone) verbs is formed by suffixing the formative /ná₁/:

me-dzó-ná	'I leave (habitually)'
ě-vě -ná hurt	'It hurts (normally)'
akođú é wó-dzrǎ-ná banana sell	'They sell <u>bananas</u> '

When a direct object or predicate nominal follows the verb, /ná₁/ is reduced to /á/:

wó-dzrǎ-á akođú	'They sell bananas'
mě-nyě-á -mó nyúíé ǰáá ò be road good al- ways	'It's not always a good road'

except when the object is the clitic third person singular pronoun:

wó-dzrǎ-ná-è	'They sell it'
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With (underlying) non-high tone monosyllabic verbs, the habitual formative takes mid or low tone, according to the tone of the verb:

ě-bu-na fūú think much	'He thinks a lot'
ě-wò-à dò do work	'He works'

but:

ě-lala-ná	'He waits'
mè-wó-a dò	'I work'

where the verbs are respectively bisyllabic and underlying non-high tone. Let us assume that the morphological rule⁴ which reduces /ná₁/ to /á/ is defined upon sequences of the form V # ná # NP (where the symbol '#', it will be remembered,

represents one or more word boundaries). We must further assume that V and NP are immediate constituents of the same higher constituent, in order to prevent the rule from applying when NP is a member of ADV:

àfò kò wǒ-tó-ná gèdè à wú' 'One travels mostly on foot'
 foot pass more

(Here, the form /gèdè/ 'a great deal' is a noun which, with the definite article /á/, modifies the verb phrase /tó-ná/, and will be generated under the domination of ADV. As such, it will not be a member of the same next higher constituent as the verb.) Taking these facts into consideration, we can state the rule reducing /ná₁/ as follows:

HABITUAL FORMATIVE REDUCTION

ná₁ ---→ á / [V # — # NP (NP)]

where we allow, eventually, for cases in which the verb has two objects.

We have seen that this rule does not apply in the case of the third person singular object pronoun, alone. We cannot account for this fact by assigning this pronoun a rule exception feature⁵ since no pronoun is mentioned in the structural description of the rule. We find, however, that a rule of boundary reduction which is needed by the grammar to account for phonological facts will also account for this exceptional behaviour. In Chapter 1.6, we assumed the existence of a rule removing word boundaries between a subject pronoun and a following future (or eventually subjunctive) marker, due to the obligatory nature of the assimilation rule when subject pronouns were involved. Other phonological evidence (a rule

of vowel shift exemplified in the Introduction, p. 12) suggests that the rule must also cover strings consisting of a verb optionally followed by the habitual marker /ná₁/ and ending with the third person singular (object) pronoun. Thus the rule would apply both on strings of the form 'PRO # T' and 'V (T) # PRO'. But this statement does not reflect a fact which is perhaps more than coincidental, namely that the pronouns affected by the rule are those in which the vowel segment bordering on # is /e/. In order to incorporate this similarity, we may frame the rule of word boundary deletion, or more properly speaking reduction (since the formative boundary '+' will remain) in the following way:

WORD BOUNDARY REDUCTION

$$\# \rightarrow + \left\{ \begin{array}{l} \left[\begin{array}{c} e \\ +\text{Pro} \end{array} \right] \text{--- T} \\ \text{V (T) ---} \left[\begin{array}{c} e \\ +\text{Pro} \end{array} \right] \end{array} \right\}$$

This statement might be further simplified by using another abbreviatory convention and allowing the rule to apply with no morphological or phonological consequences to 'subject pronoun-verb stem' strings. We would then have the following mirror-image rule, where the asterisk indicates that the inverse of the structural description is also a structural description:

WORD BOUNDARY REDUCTION (second version)

$$\# \rightarrow + \left/ \begin{array}{c} * \\ \left[\begin{array}{c} e \\ +\text{Pro} \end{array} \right] \end{array} \right. \text{--- (T) V}$$

We now see that this rule, if occurring in the

ordering before Habitual Formative Reduction, will remove representations from the domain of this rule. We may observe this in the case of the following derivations:

	dzrá # ná # àkòḍú	dzrá # ná # è	
1.		+	WBR
2.	∅		HFR
	(wǒ-)dzrá-á akòḍú	(wǒ-)dzrá-ná-è	
	'(They) sell bananas'	'(They) sell it'	

We know of no independent reasons at this time for assuming this ordering, and therefore the above analysis must be considered as only tentative.

The habitual form of the verb expresses customary or regularly repeated action, either in past time or in present time:

ènyè e ḍè-à gbè háfí wó-wò-à dḍò
 I take voice before do work

'It was I who would give the order for them to work'

àgblè wònú mé-tè-à àpé ò
 farm productive refuse house

'The productive farm does not refuse the house'

enyroa òwu, eye wo me nuwo tsrōna
 sink ship and their in- thing perish
 side

'It (the surf) sinks ships, and the things in them perish' (TA)

The progressive formative of the tense paradigm T occurs with only two verbs: /yì/ 'go' and /gbò/ 'come, come back'. It is phonologically identical to the habitual formative and like it is suffixed to the verb:

ame wó gbò-nà 'People are coming (i.e. on
the way)'

àfí ká-é ne-yí-nà 'Where are you going?'
where

(In the latter example, /é/, as usual, is the topicalizing particle and /nè/ is an alternant of the second person singular subject pronoun; see Chapter 4.6 for pronoun alternants). However, the progressive formative is distinguished from the habitual formative by its failure to undergo Habitual Formative Reduction; thus, contrasts such as the following are possible, at least for some speakers:

me-yí-à kětá 'I go (habitually) to Keta'

me-yí-nà kětá 'I'm going to Keta'

The latter form seems to be synonymous with the present progressive form (see section 4):

mè kětá yi-m 'I'm going to Keta'

Although the future and habitual formatives appear in different surface 'slots',⁶ we have generated them within the same paradigm to account for the fact that they are mutually exclusive forms: there is no *mà-dzó-ná. This seems to be an arbitrary fact of Anlo syntax, since future time is not semantically incompatible with habitual (or progressive). Since

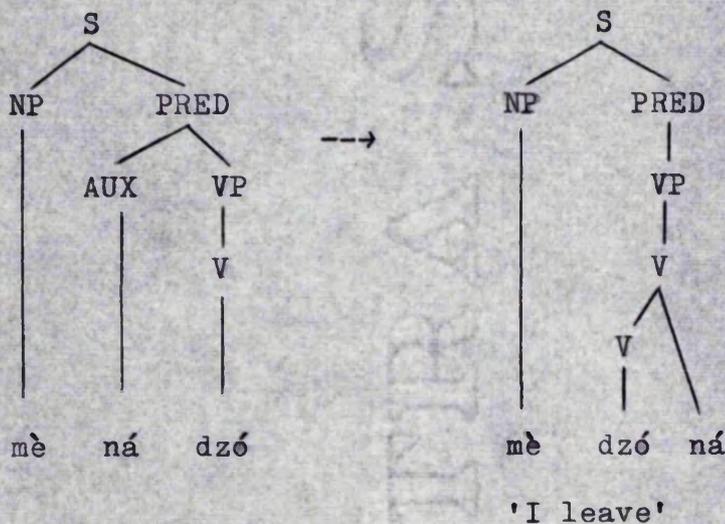
the habitual and progressive formatives are generated to the left of the verb stem, we must add a rule moving them to the right. We allow for the possibility that one or more bound preverbs P may intervene:

AFFIX-MOVEMENT

ná (P)* V

1 2 3 ---> 0 2 $\left[\begin{array}{c} 3+1 \\ V \end{array} \right]_V$

In derived structure, the string 'V+ná' is itself characterized as a verb, by the use of brackets. We impose the usual structure-building restriction on transformations that the structural change of a rule may only bracket elements in this way if the category that labels the bracket also occurs within the bracket, and moreover has not been moved itself by the structural change. This form of adjunction, sometimes called Chomsky-adjunction, can be illustrated by the following phrase-markers:



3. Bound preverbs. In this section we shall look at the elements of P, modal-like forms all of which occur in the same 'slot' between tense formatives and aspect formatives.

/gà ~ gá/ adds a repetitive sense to the verb:

'é-ga-vá	'He returned'
'á-a-gá-nyó be-good	'It will be good again'
'é-gà-gblò-è say	'He repeated it'
nyè-mé-ga-kpó kofí kpó ò I see ever	'I never saw Kofi again'

The high tone alternant occurs when the future formative (and eventually, the subjunctive formative) is present; the non-high alternant occurs anywhere else, and thus will be considered the base form. We add a rule (which we extend to the subjunctive in Chapter 7):

/gà/ TONE RAISING

$$g\grave{a} \rightarrow g\acute{a} \quad / \quad \left[\begin{array}{c} (á)à \\ \text{T} \quad \text{T} \end{array} \right] \text{---}$$

/ká/ suggests a qualification of the assertion being made by the speaker:

'é-nyó be-good	'It's good'
'é-ká-nyó	'It's quite good'
dòlélé á ká-bobo víé illness go-down little	'The illness has subsided a little'

/kpó/, homophonous with the verb /kpó/ 'see', normally carries the meaning 'yet' as a preverb, and is often synonymous with the adverb /hàqé/ 'yet':

{	nyè-mé-kpó-yì ò	}	'I haven't gone yet'
	nyè-mé-yì hàqé ò		

This form is unordered with respect to other preverbs:

nútsú á mē-	{	ga-kpó-	}	vǎ hàqé ò	'The man has still not come as yet'
man		kpó-ga-			

/nyá/ is homophonous with the verb /nyá/ 'know'. As a preverb it emphasizes the certainty of the statement being made:

{	'é-nyá-gblò-è	}	'He <u>did</u> say it'
	'é-nyǎ-nyá		

However, when selected with the future tense formative it expresses uncertainty:

à-nyá-xò	amedzró à	'Have you received a visitor?'
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Other preverbs may be selected with /nyá/. Permissible sequences seem to vary somewhat from one speaker to another, but there seem to be no strict constraints:

{	'é-nyǎ-gà-gblò-è	}	'He <u>did</u> repeat it'
	'é-ga-nyá-gblò-è		

/xà/ is homophonous with the verb /xà/ 'care, bother', and suggests having bothered in vain to do something. In Anlo it frequently occurs either with the negative formatives or with /dzòdzrò/ 'in vain':

in a verb phrase in sequence with a previous one (i.e. in a serial verb construction), and then suggests continuity of action:

míě-dzó hě-yì àpé mè 'We left and (then) went home'
 me-wo aye hě-plè-è 'I used trickery and bought it'
 me-té nú hě-plè-è 'I was able to buy it'
 be-able

This form may be used before or after another pre-verb:

é-yì kětá { hě-ga- } tró yi-a anyákó
 { ga-હે- }

'He went to Keta and then returned to Anyako'

Its distributional patterning and the fact that it may occur in simple sentences provide the evidence that /hé/ belongs with the preverbs, and not with the linkers.

/dà~yà/ corresponds to no independent verb in Anlo. It is usually restricted to main verbs which follow a verb of motion in a series, particularly when the verb of motion is /yì/ 'go' or /vá/ 'come', although it may occur before the first verb of a series or before a single verb, with the same meaning as if either /yì/ or /vá/ (which are synonymous in this case) had occurred. Its use implies that the subject went somewhere in order to accomplish the action of the verb it modifies, and that the action was in fact accomplished:

$\left. \begin{array}{l} \text{me-yi } \underline{\text{dà}}\text{-p̄le nú} \\ \text{me-yi } \text{ya-p̄le nú} \\ \text{me-vá } \text{ya-p̄le nú} \\ \text{me- } \text{ya-p̄le nú} \end{array} \right\}$	'I went to buy something (and bought it)'
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------

If we compare constructions with /dà~yà/ and constructions with /hé/, we find that the latter form differs semantically in that it does not imply that the two actions were necessarily linked by purpose:

me-yi <u>hě</u> -p̄le nú	'I went and (then) bought something (two independent actions)'
--------------------------	-------------------------------------------------------------------

Unlike purpose clauses, however, /dà~yà/ implies that the purpose of the action was accomplished; cf.:

me-yi bé so-that	má-p̄le nú	'I went to buy something (but didn't necessarily buy anything)'
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/vá/ is homophonous with the verb /vá/ 'come'. As a bound preverb it suggests that the state or action expressed by the main verb is the not unexpected result of a developing state of affairs. The following are characteristic examples:

me-vá-lé catch	dò illness	'I eventually (finally) caught sick'
ě-vǎ-zu become	núfiálá teacher	'He became a teacher'
ě-vǎ-dzò	gbè dèkà bé...	'It happened one day that...'
ě-vǎ-vo run out	le mǎ gbó our side	'We ran out of it'

In some cases only the context determines whether we have an instance of the bound preverb or of the full verb. Thus, the following sentences have two potential interpretations:

é-vá kpó wó	'He came and saw them'
é-vá-kpó wó	'He finally saw them'
me-vá dó dyìkú ná-è set anger to	'I came and angered him'
me-vá-dó dyìkú ná-è	'I eventually angered him'

There are several formal criteria which may help us decide, in any given case, whether we are dealing with the bound preverb or the full verb.

- i) When two main verbs are consecutive members of a serial construction, if the first takes the future formative, the second takes it as well in the form of the consecutive marker /á/:

é-tsó àtyí pò-è take stick hit	'He took a stick and struck him'
á-a-tsó àtyí á-pò-è	'He will take a stick and strike him'
*á-a-tsó àtyí pò-è	

This rule is valid for any number of full verbs in series; the following example has three, the second of which is /vá/:

ne gbemelãwo	hã aḍo	aba	ava	atu	mí	le	ape	me...
wild	beast	too	set	war	draw-		home	
					near			

'If wild beasts also marshalled their forces and came and found us at home...' (TA)

If a main verb is immediately preceded by a bound preverb, it cannot also be immediately preceded by a tense formative:

wó-a-gá-dzó 'They will leave again'

*wó-a-gá á-dzó

Therefore, where we find /vá/ preceded, but not followed by the future formative we know we are dealing with the bound preverb:

á-a-vá-tsó àtyí á-pò-è 'He will eventually strike
him with a stick'

mà-vá-lé dò 'I'll wind up catching
catch illness sick'

mava zu apegbãla 'I'll become a home-wrecker'
become home- (TA)
wrecker

Minimal contrasts in meaning are signalled by the presence or absence of the consecutive tense marker /á/:

mà-vá-po nu 'I'll eventually speak'
strike mouth

mà-vá á-po nu 'I'll come and speak'

ii) Parallel arguments can be given for the case of the habitual formative /ná₁/. Compare, for instance:

wó-vá-ke-na dé wó nǒpé 'They eventually come
come- stay-
upon place upon their dwelling'

wó-vá-ná ke-na dé wó nǒpé 'They come and dis-
cover their dwelling'

iii) As a general rule, two identical verbs may not follow each other immediately (apart from the case of reduplicated stems). However, we find

sentences like:

ě-vá-v(á) é-me bé... 'It came in that...'
('Once upon a time...')

wǒ-vá-vá kpé dé é nǔtyí 'They eventually came and
join to outside helped him'

- iv) The bound preverb /hé/ may not precede the bound preverb /vá/. Thus, in sentences such as the following, /vá/ may only be interpreted as a main verb:

me-vá hé-dzó 'I came and left'

Otherwise, /vá/ is freely ordered with respect to (most) other preverbs:

{ me-ga-vá-lé d̀ } 'I wound up catching
{ me-vá-ga-lé d̀ } sick again'

In this grammar P will be considered a lexical category, and the preverbs will be entered in the lexicon.

4. Aspect. The 'aspect' paradigm consists of a set of discontinuous forms. The first member of each pair is one of a set of four auxiliary verbs /lè, ǹ, d̀, tsó/ and the second is one of the two affixes /ń, gé/. These forms are not freely combinable; out of a theoretically possible eight forms, only five are found in Anlo:⁸

lè...ń	'present progressive'
lè...gé	'incipient'
nò...ń	'past progressive'
dè...gé	'nonconsummative'
tsó...gé	'immediate past'

The affix occurs in surface structure immediately to the right of the main verb. If the main verb is not followed by a direct object, it is reduplicated; if it is, however, its object immediately precedes it. Thus with the form /nò...ń/ we have:

mè-nò dzò-dzó-ń	'I was leaving'
mè-nò àgbàgbá dzě-ń effort make	'I was making an effort'

All the auxiliary verbs are homophonous with locative main verbs:

/lè/:	'to be (in, at)'
/nò/:	'to stay, remain'
/dè/:	'to reach, get to'
/tsó/:	'to come from'

and their meaning has largely carried over to the auxiliary forms, with a shift from the spatial to the temporal dimension. Below we give examples of the use of each of the five forms (in Anlo, the auxiliary /lè/ is normally omitted in colloquial speech).

/lè...ń/ is most often used in the description of events in progress at the moment of speaking:

ètyí dzà-dzà-ń water rain	'It's raining'
mè dò wò-ń work do	'I'm working'
àdzó àkplě ǫǫ-ń porridge cook	'Adzo is cooking porridge'
me-vá dò lé-ń	'I'm catching sick at last'
me-se é ǫkó wò dzè ǫó-ń hear sound speak	'I hear him speaking'

This form can be used with a number of forms that one might consider semantically 'stative':

míape ǫetugbiawo pe aǫe le ǫaǫam ndi sia ta girl tongue be- morning this very- sharp much

'Aren't our girls' tongues wagging this morning!' (TA)

It can also express repeated action:

mè tsò-tsó-ń tyi le-ń get- wash up	'I'm getting up and washing'
kofí sukú de-ń go- regularly	'Kofi is attending school'

In narrative, it can express continuous action in the past:

yí háà bí-bì-ń bùu kékéké he too struggle long time a long time'	'He too was struggling a long time'
---------------------------------------------------------------------	----------------------------------------

It can also express the immediate future:

míé ngo dó-ń	'We're going on ahead'
é tò-tró-ń vá-yì-nà àpé turn go home	'He is returning home'

/tsó...gé/ expresses actions that have just been completed. /tsó/ alone among the auxiliary verbs is not completely free of spatial reference, and its use implies that movement in space accompanies the action:

me-tsó nú	plé-gé	'I've just come back from
thing	buy	shopping'
me-tsó dè	wó-gé	'I've just come from work'

As we noted above, /lè/ is normally deleted in these constructions in colloquial speech. However, there are certain environments where it is retained:

- i) obligatorily, when /lè/ does not immediately precede the constituent VP:

fèfé kò	fé-m	mè-lè	'Only joking, I am'	
nya hi	gblò-m	wó-le a	'the matter which they	
word	dis-		are discussing'	
	cuss			
nú	ká	wó-m	nè-lè	'What are you doing?'
thing	do			
àdàbà	dzè-m	é	mè-lè	'I'm going <u>crazy</u> '
crazy	get			

- ii) optionally in serial verb constructions after the preverb /hé/:

'é-gbugbo	(hé-lè)	hà	dyì-m	'He returned and
return				is singing'

For these reasons, we assume that /lè/ occurs in the underlying form of all these constructions, and is deleted by general rule when preceding the VP (though only optionally if following /hé/).

In colloquial speech, some intransitive verbs need not be reduplicated with /m̄, gé/:

me'é-dzo le ya me hé yl-m̄ 'It flew into the sky
 fly air go and was going'
 'é-dzo le ya me hé yl-m̄ 'It flew into the sky
 fly air go and was going'

We shall introduce aspect constructions into the grammar with the following two PS rules:

PS rule 9. $A \rightarrow V Af$

PS rule 10. $Af \rightarrow \left\{ \begin{array}{l} \text{m̄} \\ \text{gé} \end{array} \right\}$

The symbol V (verb) of PS rule 9 is a lexical category, and as such generates the terminal symbol Δ by a general convention (the rule need not be stated in any particular grammar). Auxiliary verbs, therefore, are listed in the lexicon. In order to see what form their entries will take, it would be well to permit ourselves a digression at this point and review in more detail the process of lexical substitution.

In the model of grammar we have adopted for the present study, the PS rules generate bracketed strings or phrase-markers whose terminal elements are either grammatical formatives (the plural and negative markers, tense, etc.) or the 'dummy' element Δ , in case the penultimate symbol of any branch is a lexical node (N, V, A(djective), etc.). These phrase-markers carry all the syntactic information necessary for the selection and substitution of the lexical items that will complete the deep structure representation.

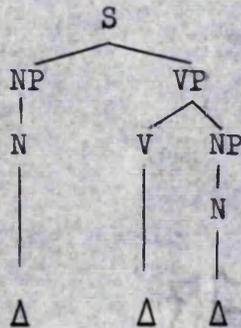
In the lexicon, certain features are associated with every lexical item, determining (among other things) which structures they may enter. Each lexical entry

has a category feature identifying its grammatical category (or categories), and a syntactic subcategorization feature which identifies the syntactic frames into which the entry may be substituted. Together, these two features may be considered to form the structural description of a lexical substitution transformation.⁹

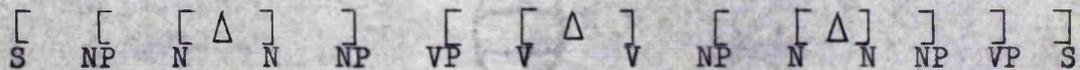
Let us consider, as an example, the derivation of the sentence

àblá dā àkplé 'Abla cooked porridge'
 cook porridge

The base rules will generate the following phrase-marker:

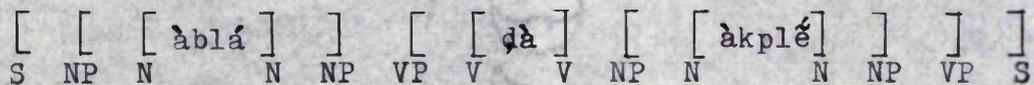


(where as usual we have eliminated irrelevant non-branching nodes). This structure may be equivalently represented in the following form:

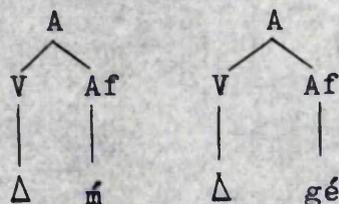


In the lexicon, both /àblá/ and /àkplé/ are assigned the feature /+N/, indicating that they are members of the category 'noun' and may be substituted for occurrences of the dummy element 'Δ' whenever these are dominated by the symbol N. Thus, they are eligible

for substitution in the above structure. The lexical entry /*dà*/ will have the feature /+V/ assigned to it, indicating that it is eligible for substitution for a dummy element dominated by the symbol V. Furthermore, it will have the syntactic subcategorization feature / — NP/, indicating that it can only enter structures in which the dummy element characterized as V is followed by the symbol NP. As this is the case in the structure given above, /*dà*/ is eligible for substitution on all counts. After substitution has taken place, we have a base structure phrase-marker containing lexical entries in the place of the former dummy elements:¹⁰



The auxiliary verbs /*lè*, *nò*, *dè*, *tsó*/ will be handled in the same way as main verbs, except for the fact that their syntactic subcategorization feature will be different. Instead of representing transitivity and intransitivity, they will ^{show} the affix(es) with which they may cooccur in grammatical structures. This is possible because PS rules 9 and 10 define two structures of the sort appropriate for verbal subcategorization:



Thus, the lexical entries for the auxiliary verbs will include the following features:

$$/l\grave{e}/: +V, \left\{ \begin{array}{l} / \text{---} \acute{n}/, \dots, \text{'progressive'} \\ / \text{---} \acute{g}\acute{e}/, \dots, \text{'incipient'} \end{array} \right\}$$

$$/n\grave{o}/: +V, / \text{---} \acute{n}/, \dots, \text{'past progressive'}$$

$$/d\grave{e}/: +V, / \text{---} \acute{g}\acute{e}/, \dots, \text{'nonconsummative'}$$

$$/ts\acute{o}/: +V, / \text{---} \acute{g}\acute{e}/, \dots, \text{'immediate past'}$$

The first feature after the lexical representation states that the item in question is a verb (is a member of the category 'verb'), and as such may be substituted for terminal elements ' Δ ' which are immediately dominated by V. The next feature is the syntactic subcategorization feature, which states that the form in question may be substituted into structures in which ^{its} right sister, i.e. the element to its immediate right which is also dominated by the same V, is / \acute{n} / or / $\acute{g}\acute{e}$ /, as the case may be. Thus PS rules 9 and 10 and the lexical entries above define, among them, all the possible combinations of auxiliary verbs and affixes.

Now, as the aspect formatives are discontinuous in surface structure, the grammar must have a rule which places an affix to the right of the verb occurring immediately to its right. In fact, the rule of Affix-movement, given in Chapter 2.2, can easily be generalized to cover the case of the aspect affixes. We add the class Af to item 1 of the structural description:

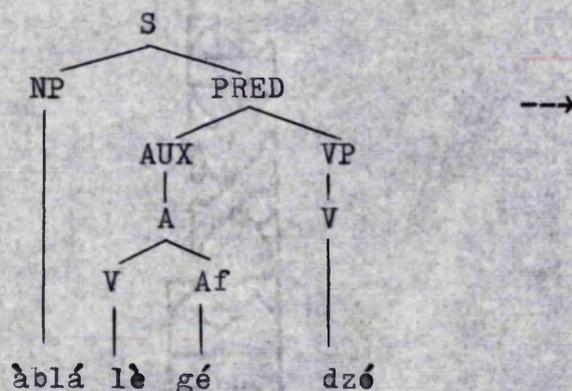
AFFIX-MOVEMENT (revised)

$$\left\{ \begin{array}{l} n\acute{a} \\ Af \end{array} \right\} \quad (P)^* \quad V$$

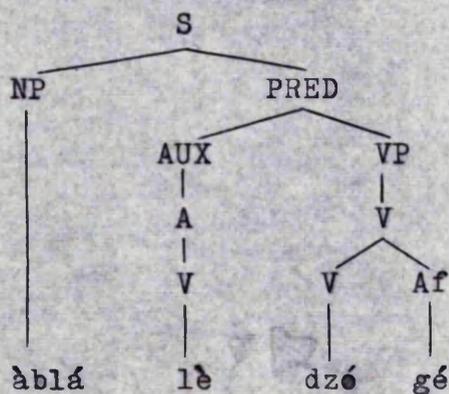
$$1 \quad 2 \quad 3 \quad \text{---} \rightarrow \quad \emptyset \quad 2 \quad \left[\begin{array}{l} 3+1 \\ V \quad V \end{array} \right]$$

The reason this rule can be extended in this way is that the symbol V (item 3 of the structural description) is ambiguous in reference: it may be defined on either an auxiliary verb or on a main verb, or on both at once. Suppose, for instance, that we are dealing with an affix marker when the habitual formative /ná₁/ is not present in the structure, nor for that matter is any tense marker. In this case, V can only be defined on the main verb, and P (item 2) will necessarily be null, since P is always generated to the left of A. Affix-movement will apply to phrase-marker (1), below, and relate it transformationally to phrase-marker (2):

(1)



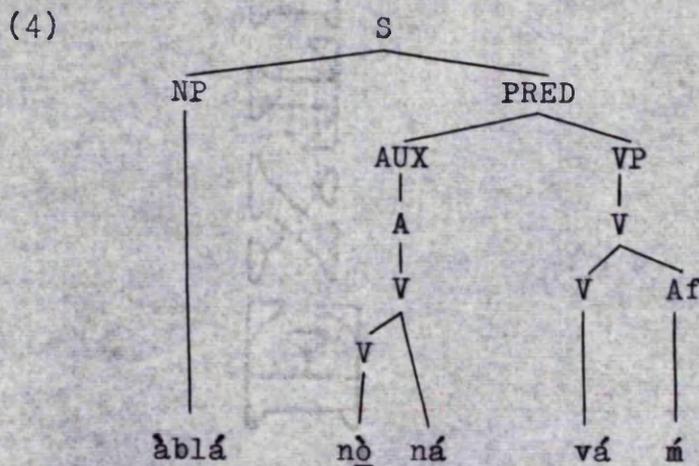
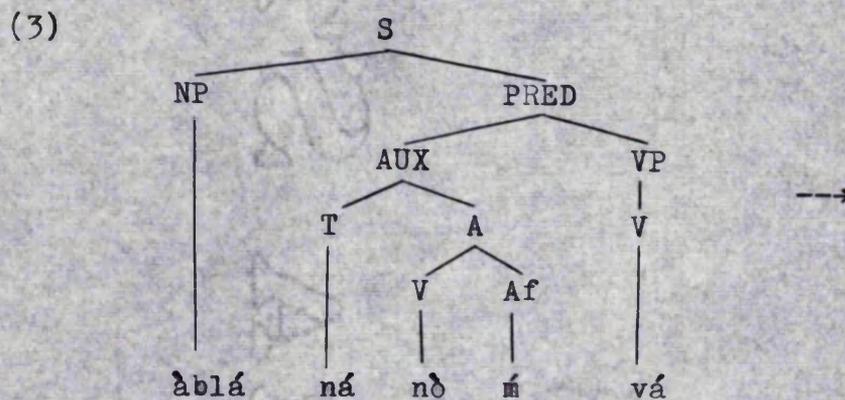
(2)



A further rule (to be discussed in the next chapter) will reduplicate the verb, giving us the eventual surface string

àblá (lè) dzò-dzó-gé 'Abla is going to leave'

Now let us suppose that item 1 is the habitual marker. In that case V is open to two possible interpretations. It may be a main verb (and one or more preverbs may intervene), as it was in the case of the derivation on page 51; or it may be an auxiliary verb of the constituent A, in which case Affix-movement is defined at two points on the phrase-marker. In this way, a phrase-marker such as (3) below will be transformationally related to (4):



In (3), if /ná/ has been selected as item 1 of the structural description of Affix-movement, then item 2 is null and item 3 is /nò/. If Af has been selected as item 1, then item 2 is null and item 3 is /vá/. Thus, Affix-movement is defined twice on (3). The reduplication rule mentioned above will apply to (4) followed by Habitual Formative Reduction, giving us the surface string

àblá nò-à vè-vá-m 'Abla is/was coming
(habitually)'

Observe, however, that in order to apply to (4), as it must, Habitual Formative Reduction must be generalized to the case where the node following /ná₁/ is VP as well as NP. We shall keep this in mind and note some interesting consequences in Chapter 3.

We shall conclude this section by noting two alternants. The aspect affix /m/ has the optional alternant /mé/ when directly followed by a pronoun, as is possible when the verb is ditransitive:

é-nú fíá -mé ò 'He is teaching me'
thing teach

The auxiliary verb of the incipient form /lè...gé/ has the alternant /alá/ when the VP has been preposed:

afodyí yí-gé wò-àlá 'Going to go to the latrine, he is'
latrine

compare:

afodyí yí-m wò-lè 'Going to the latrine, he is'

There are certain other constructions in Ewe that resemble the aspect constructions in their surface properties. These are discussed in Appendix A: 'The Affixes /m̄/ and /gé/'.

5. Cooccurrence restrictions within the auxiliary complex. If we consider by pairs the possible co-occurrence restrictions in the auxiliary complex, we have three possible types, as follows:

- i) T x P
- ii) P x A
- iii) T x A

We have observed no restrictions of the first type. One restriction of the second type has been noted, prohibiting the simultaneous selection of /vá/ and /lè gé/ within the same auxiliary. As for restrictions holding between T and A, we observe that the auxiliary verb /lè/ never appears in structures containing tense formatives. In the case of the progressive, we find /nò m̄/ substituting for /lè m̄/ whenever tense is present, with however (at least in many cases) the meaning we would have expect^{ed} to find if the auxiliary /lè/ had occurred:

- | | |
|------------------|-------------------|
| mè(-lè) dò wó-m̄ | 'I'm working' |
| mà-nò dò wó-m̄ | 'I'll be working' |
| *mà-lè dò wó-m̄ | |

we shall see that this is not a particular property of the auxiliary /lè/ but is a property of the main verb as well.¹¹ We have been able to find no restric-

tions other than these (though not all of the several hundred possible combinations were present in our data or tested). Apart from the exception noted, all members of A appear to occur freely with T, apart from the case where T = /ná₂/ which is restricted to the verbs /y₁/ and /gbò/, which are not auxiliaries (though see again note 8). Thus, for instance, we find progressive constructions in the future and the habitual:

future progressive: expresses action in progress at a future time or under hypothetical circumstances:

nǎfí mǐ-à-nò nú hia wó kátǎǎ wǒ-m a...
before all do

'Before you'll be doing all these things...'

ně dyǐnú áà-nò òl-òl-m ge-siá-gi a...
if moon shine every-time

'If the moon were always shining...'

habitual progressive: expresses action habitually in progress, in the past or present:

mè-nó-a dǒ wǒ-m

'I'm usually working, I used to work'

wǒ-no-a nuta sǎ-m le wó nútyí
be-cruel

'They would act cruelly toward them'

nú hia wó bé koklǒtsú no-a nú kǎ-m
rooster scratch

'This caused the Rooster to be always scratching'

If the other aspect forms rarely occur with tense, this seems to be due more likely to semantic con-

straints than to grammatical constraints, as speakers accept sentences like:

ně mà-tsó nǔ plě-gé a, mà-ná na-nyá
 thing cause know

'When I return from shopping, I'll let you know'

mè-dé-a anyí dzé-gé

'I nearly fall down (as, every time I pass a certain slippery spot)'

6. The alternation /lè~nò/. As locative and existential forms, the verbs /lè/ 'be in, at' and /lì/ 'exist' are members of the semantic class /-Punctual/. Unlike most members of this class, however, these forms generally have only a present time interpretation when they occur in simple sentences, with no coordinate or subordinate elements following:

é-lè lòmè	'He is at Lome'
wó-lè àpé mè	'They are at home'
é-lì	'It exists'

When reference to past time location or existence is required, /lè/ and /lì/ are replaced by the forms /nò/ and /nò anyí/, respectively:

é-nò lòmè	'He was/stayed at Lome'
wó-nò àpé mè	'They were/stayed at home'
é-no anyí	'It existed'

This gives rise to the possibility of present time/
past time contrasts such as the following:

dumegãwo	gale	audzo	fifia	abe	alesi	wo	togbuiwo	no	audzo	la	ene
town		awake	now	as	how		fore-				
elder							father				

'The town elders are as wide awake now as their
forefathers were' (TA)

In spite of these facts, the forms /lè/ and /lì/
cannot be considered verbs with an inherent present
time feature, as they occur freely in past time en-
vironments such as in narrative and in certain com-
plex structures. Minimal contrasts of meaning may
result from substituting /nò/ for /lè/:

mè-lè àpé mè ètsò wò-vá 'I was at home yesterday
when he came'

mè-nò àpé mè ètsò wò-vá 'I was at home yesterday,
when he came'

In the first of these examples, two events occur
concurrently; in the second, two events occur success-
ively.

For this reason, we do not consider the alterna-
tions /lè ~ nò/, /lì ~ nò anyí/ in such sentences to
be a part of the formal system of 'tense' in Ewe.
Rather, wherever a structure occurs in which either
/lè/ or /nò/, /lì/ or /nò anyí/ may occur (with
consequent change of meaning), we consider that we
are dealing with independent lexical forms.

As mentioned earlier, however, there are certain
environments where /lè/ can never occur, which must

be accounted for somehow. We find that /nò/ occurs in these environments with the meaning we would have expected /lè/ to have:

- i) cooccurring with the future or habitual formatives in AUX:

mè-lè àpé mè	'I'm at home'
mà-nò àpé mè	'I'll be at home'
mè-nó-a àpé mè	'I am/was usually at home'

Observe that /lè/ is ungrammatical in such surface structures:

- *mà-lè àpé mè
*mè-lé-a àpé mè

- ii) in the imperative:

mè(-lè) yì-yì-ń	'I'm going'
nò (yì-)yì-ń má-vá	'Be going, I'll come'
*lè (yì-)yì-ń má-vá	

- iii) in the subjunctive:

me-dyí bé nà-nò àpé mè	'I want you to be at home'
want	
*me-dyí bé nà-lè àpé mè	

Here, we do not consider that we are dealing with surface reflexes of the underlying verb /nò/, but rather with a suppletive form of /lè/ which enters structures in which the future, habitual, imperative or subjunctive formatives (eventually: any member of T) occur to the left.

Let us suppose, then, that /lè/ has the alternate phonological form /nò/ just in case the base structure it enters ^{has} a tense formative. We can provide for this directly in the lexical entry, specifying a disjunction of phonological matrices:

$$/ \left\{ \begin{array}{l} \underline{nò} / T (P)^* \text{ —} \\ \underline{lè} \end{array} \right. /, +V, \left\{ \begin{array}{l} / - \underline{gé}/, \dots, \text{'incipient'} \\ / - \underline{ń}/, \dots, \text{'progressive'} \\ / - \underline{NP}/, \dots, \text{'be in/at'} \end{array} \right\}$$

This entry states that the verbal form in question has the phonological shape /nò/ just in case it is preceded by a tense formative and any number (including zero) of bound preverbs; otherwise, it has the shape /lè/. This generalization holds whatever the structure the verb enters, i.e. whether it is an auxiliary verb or a main verb.

The entry for /lè ~ nò/ must further provide that this form may enter no structures in which both a tense formative and the affix /gé/ are present, as we have (in Anlo):

* mà-lè hà dyl-gé

* mà-nò hà dyl-gé

It must state a similar constraint against occurrences of /lè ~ nò/ in structures containing both /vá/ (the preverb) and /gé/, as we saw above. These two restrictions can be collapsed in the following form:

/lè ~ nò/ may enter no AUX of the form $\left\{ \begin{array}{c} T \\ X \end{array} \right\} (P)^* \text{ — } \underline{gé}$.

We leave open the question of the status of such rules in the grammar, that is, whether they are stated in lexical entries themselves (with some duplication, as another statement would have to be made in the entry

for /vá/), or whether they are to be considered as base conditions, i.e. conditions on deep structures which characterize certain strings as ill-formed, much as in the manner of (syntactic) output conditions (see Ross 1967, Perlmutter 1971).¹²

7. The 'future' and 'incipient' forms contrasted.

As the forms /áà~à/ ('future') and /lè gé/ ('incipient') are very close in meaning, one might wonder why they should be distinguished in the base at all. Since they are mutually exclusive forms (at least in Anlo - see note 8), we might propose instead that both should be generated in the same paradigm T.

It would appear that the forms are not quite identical in meaning, however. The future form is characteristically noncommittal and expresses objective possibility, while the use of the incipient expresses the personal appraisal on the part of the speaker that the event in question will be realized. Observe, for instance, the following examples:

á-a-no tyi	á-kú	'He will/may drown', as be-
drink water	die	cause he doesn't know how to
		swim (objective possibility)
é tyi no-gé á-kú		'He's going to drown', as be-
		cause he's behaving reckless-
		ly (personal appraisal)

The second example represents the act of drowning as a series of related events E_1, E_2, \dots, E_n , where E_n = death by drowning and where at least E_1 has already been realized at the moment of speaking.

We find as well that (at least for some speakers) the two forms contrast in certain embedded clauses, where the main verb is a member of the class /-Punctual/ and therefore ambiguous between present and past time reference. In such cases the future form tends to give the entire expression a past time meaning, while the incipient gives it a present time meaning:

me-súsú bé wó-a-vá 'I thought that they would come'
think

me-súsú bé wó và-vá-gé 'I think that they will come'

Furthermore, the two forms are not everywhere interchangeable; observe the following:

mà-nò nú ǰú-m 'I'll be eating'
eat

mè nò-nò-gé nú ǰú-m 'I'm going to remain, eating'

where the latter example has quite a different derivational history, /nò/ being a main verb followed an aspect construction involving /lè m/, with /lè/ deleted as usual. The fact that the second example has no interpretation 'I'm going to be eating' - which is certainly well-formed semantically - shows that /lè gé/ and /lè m/ are in fact mutually exclusive forms. This follows from our placement of them within the same paradigm A.

We can find environments where one form, but not the other, yields ungrammatical sentences. We observe that clauses embedded after verbs of perception like /kpó/ 'see', /sè/ 'hear', etc., must be untensed; thus:

me-kpó kofí wò-ḡu nú 'I saw Kofi eat'
 he eat thing

*me-kpó kofí wò-à-ḡu nú

*me-kpó kofí wò-ḡú-a nú

But such clauses freely take aspect formatives:

me-kpó kofí wò(-le) nú ḡú-m 'I saw Kofi eating'

me-kpó kofí wò(-le) nú ḡú-gé 'I saw Kofi getting
 ready to eat'

The future and incipient also contrast in conditional clauses (see the next section for an example).

8. Time adverbials and the tense-aspect system.

The selection of time adverbials generated under the node ADV is not independent of the selection of members of T and A; certain cooccurrence restrictions are observed.

- i) past time adverbials, such as /ètsò 'hì vá yì/ 'yesterday', /tsá/ 'formerly', are compatible with habitual and with zero tense:

me-vá		etsò hi vá yì
mè-nò vâ-vá-m		tsá
me-vá-ná		
mè-nó-a vâ-vá-m		

Due to its obligatory 'present time' meaning, /lè/ cannot be selected with such expressions unless it occurs as part of a complex construction, or in narrative.

iii) present time expressions: there appear, in fact, to be no expressions referring to present time exclusively; the form /fííí/ may be glossed 'now', 'just now', 'soon', 'a short while ago', 'these days', etc., according to context, and thus imposes no constraints on auxiliary forms.

iv) adverbials of habitual or repeated action, such as /'énuénu/ 'often', /gè-siá-gí/ 'always', impose the cooccurrence of the habitual or future formatives, when the verb is /+Punctual/:

me-vá-ná		'énuénu
mè-nó-a vâ-vá-m		ge-siá-gi
mâ-vá		
mâ-nò vâ-vá-m		
(mè-nò vâ-vá-m)		

the last example being possible for some speakers in which case it is synonymous with the second example.

With /-Punctual/ verbs, such as /lè/, these restrictions are relaxed:

mè-lè àpé me ge-siá-gi

'I'm always at home'

èbà mé-le mó dyí ge-siá-gi ò
mud road

'There's not always mud on the road'

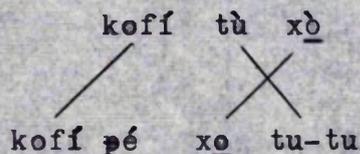
RESTRUCTURING

In this chapter we look at a syntactic rule which has the effect of restructuring any VPs which function syntactically as nouns. This rule operates both on VPs occurring within lexical representations of the lexicon, and on VPs generated in the syntactic base, and plays an important role in the reduction of ambiguity in surface structures.

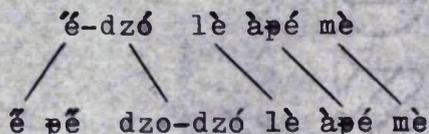
1. The formation of gerundive nominals. Our PS rules do not provide for a common type of nominal form which is systematically related to certain sentences. We may illustrate these nominals by (1) and (2) below, which appear intuitively to be related in some way to sentences (3) and (4) respectively:

- 1) kofí pé xò tu-tu 'Kofi's house-building'
 2) 'é pé dzo-dzó lè àpé mè 'his leaving home'
 3) kofí tù xò 'Kofi built a house'
 build house
 4) 'é-dzó lè àpé mè 'He left home'

The following diagram will make the correspondence between the elements of (1) and (3) clear:



We see that in the nominal form, the object of the verb precedes it, and the verb has been reduplicated. Furthermore, the former subject appears as a genitive modifier, with the genitive formative /pé/ following it. (2) and (4) compare in a similar way:



Here, the oblique (prepositional) object of the verb is not preposed in the nominal form; otherwise the elements compare in the same way.

Let us examine a few of the syntactic properties of these gerundive nominals. In certain respects, they are comparable to nouns. PS rule 5a provides that nouns follow the genitive modifier in possessive structures. Other examples show us that gerundive nominals may be followed by determiners and the plural formative /wó/:

q̄b̄q̄ó wó-wó hia 'this preparation-making'
preparation make

yé wó dȳdzédzé kp̄ó-kp̄ó wó 'his success-seeing (triumphs)'
he success see

Thus, these forms have the distributional properties of nouns as they are defined in our grammar. Secondly, the gerundive nominals (together with any determiners or the plural marker if present) share with NPs the property of coordination with the NP linker /kplé/:

kofí kplé àblá 'Kofi and Abla'

xó tu-tu kplé hà dȳ-dȳ 'house-building and singing'

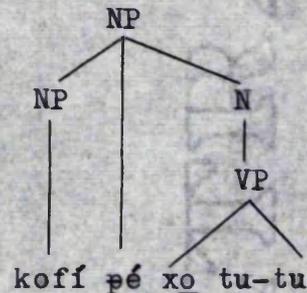
Elsewhere in the grammar, /kplé/ may only link NPs; VPs and sentences have different linkers. Thirdly, while gerundive nominals have the inner structure of VPs in that their NP relates to the verb as object, it may contain no members of AUX; all tense/aspect distinctions are neutralized. However, negative forms are possible in which the (also reduplicated) formative /mà/ expresses the negation:

ma-yi-ma-yi 'not going'

eto má-pe-má-pe 'not buying mortars'

On the basis of these observations, we may tentatively propose the following partial analysis of the surface structure of (1):

5)



'Kofi's house-building'

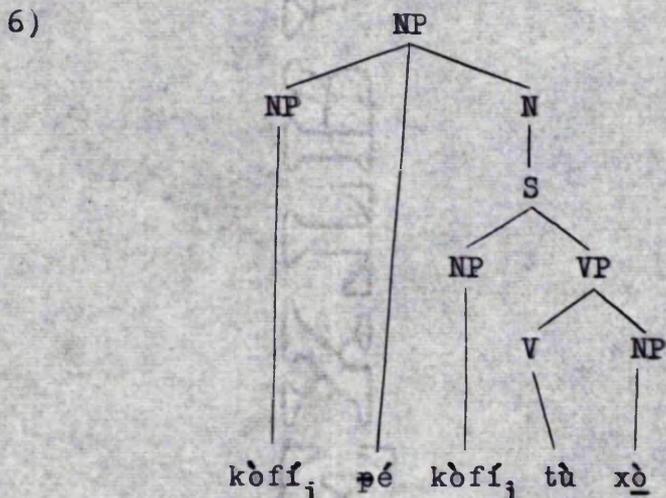
But as we as yet have no rule introducing VP under the immediate domination of N, we must introduce the following:

PS rule 11. $N \rightarrow (\text{mà}) VP$

This rule allows N to be rewritten as VP, optionally preceded by the formative /mà/, to account for the negative nominals. (Recall that the grammar has another rule rewriting N as the element Δ , by general convention; thus PS rule 11 is not obligatory).

Let us now consider the problem of the internal structure of the VP dominated by N, a question which in turn calls for a deep structure analysis of (1). Apart from the fact that /xò/, in this example, is understood unambiguously as the object of /tù/, /kòfi/ is understood as the subject; in other words, the grammatical relations in (1) are just those of (3). In fact, it is true that for any gerundive nominal whatsoever preceded by a possessive modifier, we can construct a full sentence in which the same lexical items stand in the same grammatical relationship to each other, in spite of the difference in order.

One way of accounting for this relationship that immediately suggests itself is to suppose that N dominates not VP, but rather a S, and that this S is precisely the sentence that corresponds to the nominal in the way we have seen. According to this analysis, the deep structure of (1) would be:

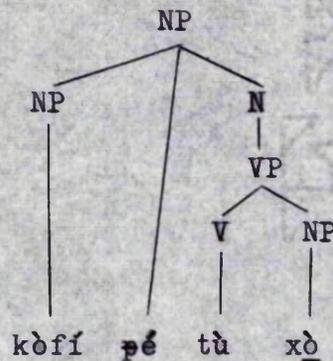


where the subscript indices indicate coreference. In such an analysis, the embedded sentence would account entirely for the semantic interpretation, and would account for all the grammatical relations in a direct fashion.

This approach poses the difficulty that a rule is now necessary deleting the second occurrence of /kòffí/. This poses no problem of principle; such a rule ('Equi-NP Deletion') has been described for many languages. The point is that we are aware of no independent justification for such a rule in Ewe. Ewe has no clause-embedding verbs of the type of English 'want' which delete a subject when it is coreferential with the subject of the main verb. Until such justification is presented, as it may well be in a more complete study of nominal and sentential syntax, we prefer to adopt the more conservative solution on methodological principles and suppose that N does in fact

dominate the string (mà) VP in deep structures. Nothing crucial to later discussion is involved in the choice we make here, so we need not dwell on the matter any further. We propose that the deep structure of (1) may be represented in the form of the phrase-marker (7):

7)



This representation clearly accounts for the fact that /xò/ is understood as the object of /tù/ in (1); but it does not explain the fact that a NP standing in the relation of 'possessor' or 'genitive modifier' to a VP should be interpreted as the subject of the verb. It would appear that some statement of this sort will have to be added to the semantic component of the grammar, unless some solution can be worked out along the lines of Chomsky 1970. With such a statement, it will no longer be necessary to call particular attention to the fact that the collocational possibilities of nouns and verbs in gerundive nominals is precisely equivalent to that of verbs and direct objects; nor that the collocational possibilities of NP modifiers and verbs is just that of subjects and verbs. These facts will follow from representations such as (7).

We must now have a rule providing a mapping between deep structure (7) and surface structure (5). This rule must do two things: it must prepose any underlying direct object, and it must reduplicate the verb.

These are simple operations that can be defined in terms of the elementary transformations of adjunction and deletion. As our examples have suggested, only elements internal to the VP are affected. The rule must further state that the operations are only defined on VPs which are themselves nouns, as otherwise it would apply (incorrectly) to the VPs dominated immediately by PRED. On the basis of these facts, we may frame the rule of Restructuring in the following way:

8) RESTRUCTURING

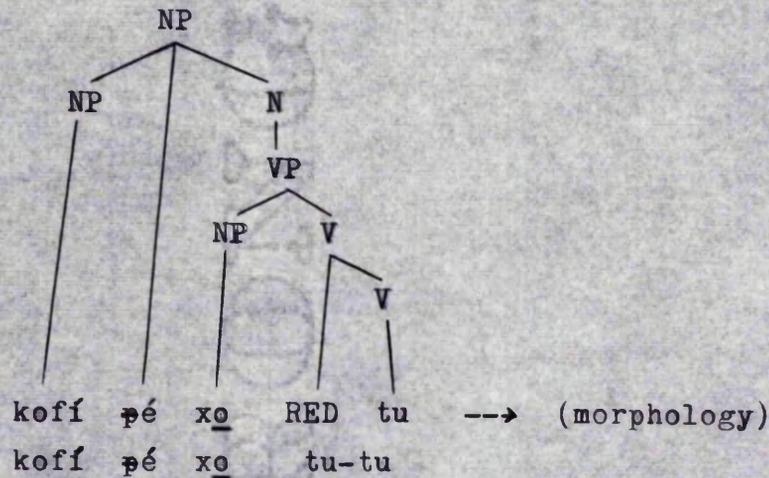
$$\begin{array}{ccccccc}
 \left[\begin{array}{c} \text{V} \\ \text{N} \end{array} \right. & \left\{ \begin{array}{c} \text{NP} \\ \emptyset \end{array} \right\} & \text{X} & \left. \begin{array}{c} \\ \text{N} \end{array} \right] & & & \\
 1 & 2 & 3 & & \longrightarrow & 2 & \left[\begin{array}{c} \text{RED} + 1 \\ \text{V} \end{array} \right] & \emptyset & 3 \\
 & & & & & & \text{V} & & \\
 \end{array}$$

- A. Copy 2 to the left of 1. Delete 2.
- B. Chomsky-adjoin RED to the left of 1.

The inserted formative RED receives a phonological interpretation later in the course of derivation.

We are now in a position to complete the phrase-marker indicating the surface structure of (1). The rule of Restructuring will characterize a transformational relationship between phrase-marker (7) and phrase-marker (7'), below:

7')



Should the rule operate on a structure containing no direct object, such as that underlying (2), no permutation will take place (part A of the rule will be vacuous) and the only overt change will be the reduplication of the verb.

2. The formation of lexical nominals. The rule of Restructuring is more general than the facts we have so far presented would suggest. We have been examining a regular syntactic process for forming nominals from VPs. These forms, gerundive nominals, are characterized by being perfectly regular in meaning: their meaning is deducible directly from the meaning of their constituents, given underlying representations such as we have proposed.

There are other nominals, however, which do not have this property of semantic regularity. While similar in internal composition to the preceding items, the meaning of each must be learned separately, as it usually contains unpredictable semantic elements. These forms will be called lexical nominals; we shall assume that they are nouns listed in the Ewe lexicon.

Lexical nominals formed from intransitive verbs, like the gerundive nominals, are always reduplicated; cf. the following forms, where stems are separated by colons:

- 9) **bù:bù** 'dust'
 dà:dà 'pride'
 lò:lò 'love'
 vò:vò 'fear'
 mà:má 'division'
 qò:qó 'sequence'

But lexical nominals formed from transitive verbs are not always reduplicated; compare the forms of (10) and (11):

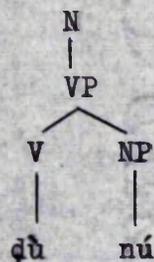
- 10) reduplicated forms:

- nú:du:du** 'food'
sé:po:po 'flower'
n(u):ke:ke 'day'
kú:tsé:tsé 'fruit'

- 11) unreduplicated forms:

- nú:nyá** 'knowledge'
fe:tú 'reward'
tyi:po:qí 'libation'
dyl:kú 'anger'

The initial stem in all members of (10) and (11) is a noun. If lexical representations are to capture the fact that they are semantically the objects of the verb that follows them, we must assign them the structure of a VP¹. Suppose then the form /núqùqùú/ 'food' is given the lexical representation:



or equivalently:



Then we find that Restructuring will be defined on these representations and permit the derivation of the surface forms, just as in the case of the gerundive nominals. We need not add a separate transformational rule to the lexicon doing the same work as Restructuring; a single rule, operating in the syntax, will derive both types of nominals correctly.

This analysis does not yet give us the surface forms of (11), however. We must account in some way for the absence of the reduplicated syllable. Or are we dealing here with a class of forms quite unrelated to those of (10), derived by an entirely separate permutation rule which has no provision for reduplication?

Fortunately, there exists a class of forms in Ewe which can help us to come to a decision. This consists of a large and productive² set of nominals formed by means of the affixes /lá/ 'agent', /pé/ 'place', /gí/ 'time', /nú/ 'thing', and certain others. Let us observe first those forms derived from intransitive verbs. The regular rule is that the verb is reduplicated:

- 12) dyì 'to bear' dyì:dyì:lá 'one who gives birth'
 dzó 'to leave' dzò:dzó:lá 'one who leaves'
 dzrà ǰó 'to prepare' dzà:dzrà:ǰó:gi 'time for pre-
 paring'

Such forms, it would appear, are semantically regular. On the other hand, there are many examples of lexical nominals of this type that are unreduplicated, even though they are intransitive:

- 13) dyì:lá 'parent'
 súbó:lá 'servant'
 kú:pé 'place of death'
 nǒ:pé 'dwelling, abode'
 (yì:)yì:pé 'place, manner of going'
 (tsò:)tsó:gi 'starting time'

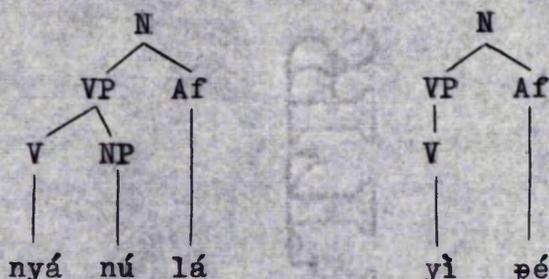
Turning now to the forms derived from transitive verbs, we find that the verb is never reduplicated:

- 14) nú:nyá:lá 'wise man'
 nya:dró:pé 'court'
 gà:dzrà:ǰó:pé 'place for saving money'
 dǒmé:nyí:nú 'inheritance'

We can use the now-familiar argument based on equivalence of grammatical relations to support a claim that the nominals of (14) must be related to deep-structure verb-object sequences. The question, again, is whether Restructuring is the proper rule to accomplish this, with its generation of unwanted reduplicated syllables, or whether we must introduce some new rule which has as its sole effect the permutation of the verb and its object. However, we can now see that to choose the latter solution, in the case of the nominals of (14), is to make the claim that their derivational history is not

the same as that of the forms of (12) and (13), where we observe reduplication taking place. (though only optionally in the items of (13)). It would be equivalent to setting up one derivational class based on the criterion of reduplication and another one on the basis of verb-object permutation, missing entirely the insight that the relevant distinction is that of transitivity of the verb. We should therefore prefer to find a way of describing these forms in terms of which all agentive nouns (or all place-nouns, etc.) pass through the same derivational process, independent of verbal transitivity.

Suppose therefore we tentatively assign members of this class of nominals representations such as the following, to which Restructuring will apply:³

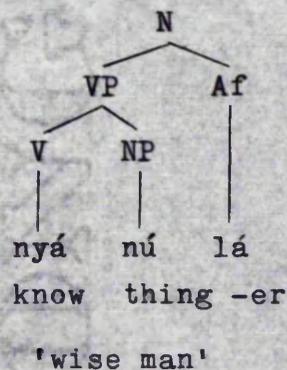
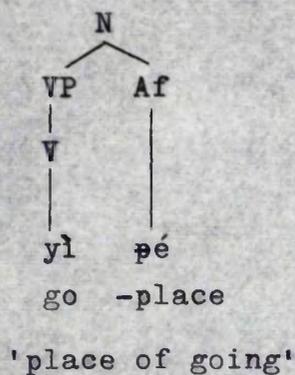


Correct forms will consequently be derived for the members of (12), while the members of (13) and (14) will be assigned an extraneous reduplicative syllable.

3. RED-deletion. In the light of the above discussion, let us turn back to our statement of Restructuring (8). It is now clear that no forms considered are exceptional with regard to part A of the rule, but only to part B.

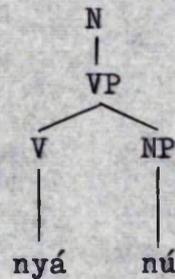
the same as that of the forms of (12), or of those forms of (13) which permit optional reduplication. It would be equivalent to setting up one derivational class based on the criterion of reduplication and another one on the basis of verb-object permutation, missing the insight that these two phenomena follow from the transitivity (or lack of transitivity) of the verb. To put this argument another way, if the Restructuring rule is not permitted to apply in the derivation of forms like those of (14), then we cannot derive the forms of (12) and (13) by it and maintain a consistent analysis. Thus, failure to let Restructuring apply here would require the introduction of not one but two new rules, doing the work of parts A and B of Restructuring respectively.

We should prefer to find a way of describing forms (12) - (14) in such a way that they all pass through the same derivational process, undergoing all structural changes which are defined on them, whether the verbs are transitive or not. Suppose therefore we tentatively assign them representations such as the following, to which Restructuring will apply:³



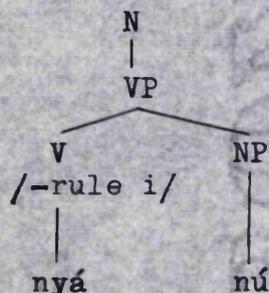
Correct forms will now be derived for the members of (12), while the members of (13) and (14) will be assigned an extraneous reduplicative syllable.

The same analysis will be extended to the forms of (11), since the problem of verbal non-reduplication is no longer unique to this group. Thus, a lexical nominal such as /núnyá/ 'knowledge' will have the lexical representation:



3. RED-deletion. In the light of the above discussion, let us turn back to our statement of Restructuring (8). It is now clear that no forms considered are exceptional with regard to part A of the rule, but only to part B. An adequate theory of lexical exceptions will allow us to account for the non-reduplicating forms of (11) and (13), that is, the transitive affixless forms and the intransitive affix forms⁴. We observe that there is no way of predicting the irregular behaviour of these items on the basis of other properties which they share; they are essentially random exceptions to a general rule. This is not surprising, as a large part of the grammar of any language consists of exceptions to rules. The theory of grammar provides for such unpredictable behaviour through subcategorization of lexical items, and in particular by the device of the rule exception

features, feature. These features, associated with each exceptional item in the set of features constituting its lexical entry, indicate which rules an item is prohibited from undergoing. Let us suppose that Ewe has a feature /-rule i/ expressing exceptionality in regard to part B of Restructuring, thus preventing any item so marked from undergoing reduplication. To be more precise, this feature will be associated with the verb in the lexical representation of the lexical nominal in question. Thus, our last example can be represented in the following way:



The case of the transitive affix nominals of (14) is quite different in nature. Here, we are not dealing with a set of random exceptions but with predictable exceptions: no transitive verb reduplicates if the verb is followed in the nominal by an affix. These items, therefore, are perfectly regular. Three ways of accounting for them are suggested:

- i) a condition could be added to part B of the rule stating that X (item 3 of the structural description) is not analyzable as W-Af-Z.
- ii) a rule of lexical implication could be added to the lexicon, stating that a noun with the internal structure V-NP-Af must have the feature 'exception to part B of Restructuring'.

- iii) a rule could be added to the transformational component of the grammar, ordered after Restructuring, which has the effect of deleting the formative RED in the environment NP — V Af.

We shall offer reasons below (in the next section) for believing that (iii) is the correct solution in this case, and thus we add:

15) RED-deletion

$$\begin{array}{ccccccc}
 \left[\begin{array}{cccc}
 \text{NP} & \text{RED} & \text{V} & \text{Af} \\
 \text{N} & & \underbrace{\hspace{1.5cm}} & \text{N}
 \end{array} \right] & & & & & & \\
 1 & 2 & 3 & \longrightarrow & 1 & \emptyset & 3
 \end{array}$$

To summarize the discussion of this chapter to this point, we have seen that the grammar of Ewe has a rule of Restructuring which permutes a verb and its object, causing the verb to be preceded by a reduplicative syllable, whenever the VP in question is characterized syntactically as a noun. This rule, justified first for the case of gerundive nominals, can be **extended** to cover a large class of lexical nominals, including some forms with unreduplicated verbs. The cost of this extension was the addition of rule (15) to the grammar.

4. AVPs. In Chapter 2 (page 68) we described a rule of Affix-movement which adjoins any affix of AUX to the right of the first verb to its right. If this verb is a main verb, the rule has the effect of introducing an affix into the derived structure of VP. Let us

refer to such VPs informally as AVPs (affix verb phrases).

The rule of Affix-movement is not sufficient to account for the observed surface forms; in addition to the affix-placement rule, we need a rule that will reduplicate an intransitive verb and permute a transitive verb with its object:

- 16) kofí (lè) dzò-dzó-gé 'Kofi is going to leave'
 17) kofí (lè) xò tù-ń 'Kofi is building a house'

This is precisely the effect, of course, of Restructuring. We may observe that the aspect constructions are quite parallel, formally, to lexical nominals formed with affixes:⁵

intransitive verb: /dzó/ 'to leave'

lexical nominal: dzò-dzó-lá 'one who leaves'

progressive: dzò-dzó-ń 'leaving'

transitive verb: /tù/ 'to build'

lexical nominal: xò-tu-lá 'house-builder'

progressive: xò-tu-ń 'building a house'

Let us generalize Restructuring, then, to the AVPs. The advantages of doing this are clear. Instead of having to account for forms like /dzò-dzó-gé/ and /xò tù-ń/ by two unrelated rules, one reduplicating an intransitive verb and the other permuting a transitive verb with its object, we derive them both by a single, independently necessary rule. Another independently-motivated rule, RED-deletion, automatically removes the

superfluous reduplicated syllable, as the aspect constructions meet the structural description of this rule:⁶

RED-deletion:	NP	RED	V	Af					
	1	2	3	---	1	∅	3		
lexical nom.:	xò	RED	tù	lá	---	xò	∅	tù	lá
progressive:	xò	RED	tù	ń	---	xò	∅	tù	ń

We can now justify the decision we made in the last section to introduce a rule of RED-deletion rather than choosing either of two other alternatives, placing a condition on Restructuring or adding a lexical implication rule to the lexicon. The latter of these alternatives would be suitable in the case of lexical nominals but could not be extended to syntactic phenomena such as the AVPs. The former alternative would be adequate if all the exceptions were obligatory, as there is no way of providing that a given condition on a transformation is optional in the case of certain lexical items. We have already seen, however, that for some verbs reduplication is optional in AVPs (see p. 65):

{	mè dzò-dzó-gé	}	'I'm going to leave'
{	mè	dzó-gé	}

The device of rule exception features cannot help us here; these features express exceptionality with regard to the structural change only, and not with regard to the conditions. Thus, the behaviour of verbs like /dzó/ could not be accounted for in terms of the alternative of placing a condition on a transformation. However, by introducing RED-deletion, we provide for verbs like /dzó/; they will be assigned an optional rule feature /+RED-deletion/, and the structural description of the

rule is modified to allow for a case (b) in which item 1 is null, this case being a minor rule of the grammar, i.e. a rule applying to a minority of lexical items (Lakoff 1970).

5. A problem in generalization. Having decided to extend the rule of Restructuring to AVPs, the question arises of how this is to be most suitably accomplished. The most obvious solution would be to generalize the structural description of the rule in such a way as to allow it to apply to VPs:

$$18) \quad \left[\begin{array}{c} \text{V} \\ \text{N} \\ \text{VP} \end{array} \left\{ \begin{array}{c} \text{NP} \\ \emptyset \end{array} \right\} \text{X} \right] \begin{array}{c} \text{N} \\ \text{VP} \end{array}$$

We can immediately see that this makes the rule too powerful in generative capacity. In this form, it would apply to the VPs of any sentence whatsoever, and not only those which contain aspect affixes, as we desire. We would have incorrect derivations such as:

$$\left[\begin{array}{c} \text{kòfí} \\ \text{S} \end{array} \text{tù} \begin{array}{c} \text{xò} \\ \text{S} \end{array} \right] \quad \dashrightarrow \quad * / \text{kòfí} \text{xò} \text{tù-tù' /}$$

Consequently, we must add a further condition to the structural description so as to block derivations such as the above. The rule must now specify that a VP is eligible for Restructuring just in case an affix is adjoined to the right of the verb stem. This statement may take the form of the following condition on rule (8) as extended by (18):

- 19) Condition: $\text{VP} \supset 1 = \text{V} + \text{Af}$ (VP implies that item 1 is analysable as the string V + Af)

We believe, however, that it can be demonstrated that this analysis is incorrect, and that the grammar of Ewe contains neither (18) nor (19), in spite of the relative simplicity of this solution. On purely methodological grounds, the above solution is far from satisfactory. (18) makes the claim that an important rule of syntax in Ewe operates on the two domains N and VP. While labelled-bracket collapsing of this sort seems to be necessary in the phonological component of the grammar (see Chomsky and Halle 1968), evidence that it is necessary in syntactic description seems far less clear. Furthermore, even if such collapsing were permitted, N and VP seem unlikely candidates for such assimilation; it appears that no rules are required to operate on this disjunction of domains in such well-studied languages as English and French (on the other hand, there is some evidence in favor of collapsing NP and S, and for extending grammatical theory in such a way as to make this possible; see Chomsky 1970, Jackendoff 1971).

Condition (19) is relatively simple to state and seems to require only primitive notions of the grammar (implication, analysability). However, the existence of conditions on rules is often evidence that the rules have been incorrectly formulated, or that the particular condition in question may be a limited case of a more general condition upon the application of rules of certain types. It has been an important hypothesis of recent work in syntax that rules do not have conditions other than those formalizable within the narrow constraints placed upon the form of structural descriptions.

There is a considerable amount of evidence suggesting

that AVPs behave syntactically in many respects not like VPs but rather like NPs. As this evidence is highly relevant to the present discussion, we shall review it here, giving appropriate examples.

Etymological evidence. Though it is not at all obvious that etymological evidence should have any necessary bearing on the analysis of the present state of the language, we should not pass over the proposed relationships that led Westermann to analyse the affixes /n, gé/ as postpositional nouns. He claimed (Westermann 1930) that /gé/ 'had its origin in gbé 'neighbourhood' (p. 76); he similarly believed that /n/ could be related to the postpositional noun /mè/ 'inside'. Thus, a form like éle pòyèⁿ 'he is striking me' was in Westermann's view properly understood as éle pòpò yè mè 'he is in my striking' (p. 82). The evidence in favor of a relation between /n/ and /mè/ is very slim, however, and the proposed derivation of /gé/ from /gbé/ is weakened by the absence of any independent evidence for such a sound change as gb > g in Ewe. Thus, the etymological arguments seem none too strong.

The strong arguments come from the domains of syntax and 'morphology' as this term is understood here (see Chapter 7). They consist of showing that there is a series of rules in Ewe which must be defined upon the disjunction of the domains NP and VP, where VP can only be an AVP (other VPs being unaffected by these rules).

Syntactic evidence. We shall first look at the two syntactic rules of Topicalization and Genitive Pronoun Permutation.

- i) Topicalization places a NP in initial position in the sentence, where it may be followed by the 'topicalizing' particle /é/:

kofí é me-kpó 'I saw Kofi'

An AVP may be preposed in the same way:

àdàbà dzè-m é mè-lè 'I'm going crazy'
crazy get

Of the other syntactic categories tested (including VP, V), none have been found to have these properties.⁷

- ii) Genitive Pronoun Permutation places first and second person singular pronouns to the right of the first element following them, in certain possessive constructions (for more details see Chapter 4.7):

nyè àpé mè ---> àpé-nyè mè '(in) my house'
my house in

In parallel fashion, a first or second person singular object pronoun in an AVP permutes with the first element to its right, that is, to the verb stem (placed there by Restructuring) but not the affix:

nyè dyí-m ---> (dyí-nyè-m --->) dyl-è-m 'seeking me'
me seek

These pronouns do not show this behaviour in other environments.

Morphological evidence. The remaining rules which we have found to operate on the dual domains of NP and VP fall within the (productive) morphology of the grammar, thus are rules that are limited in power to substituting and deleting phonological matrices but which permit internal category variables in their statement.

- iii) Habitual Formative Reduction, as we have seen. (Chapter 2.2), reduces the formative /ná/ (with eventual tonal assimilation after a non-high tone verb) to the form /á/, whenever the verb precedes its direct object:

é-wò-à dò 'he does work (works)'

We also observed that no reduction takes place if a following NP is not a direct object, cf.:

mě-nǎ-ná àmè lólo-ná ò 'It's not fattening'
 cause person be-
 fat

(here the object of /ná/ 'give, cause' is not the noun /àmè/ 'person' but the sentence /àmè lòlò-ná/). Other examples (see Chapter 2.5) show us that the habitual formative is reduced after an auxiliary verb preceding an AVP:

mè-nó-a dò wǒ-m 'I'm usually working'

Thus, it appears that this rule too must be extended to the AVPs.

- iv) Pronoun reduction. The first person plural pronoun is /míáwó/, reduced to /míá/ when in genitive position in a NP:

míá gbó 'our side, near us'

and when the object of the following verb in an AVP:

míá kpó-m 'seeing us'

Elsewhere, the first person plural pronoun is reduced to /mí/ (see Chapter 4.4). We shall see that a similar parallel can be drawn for the other genitive pronouns.

- v) Vowel alternation. In the Anlo dialect (see p. 11), the vowel /o/ becomes [o] and /a/ becomes [e] in a verb immediately preceding a NP direct object:

/nò/ 'stay': [mè-nò dù à mè] 'I stayed in the town'

This change does not take place when a following NP is not a direct object:

/dzò/ 'be born': [é-dzò gbèví è] 'He was born a rascal'

However, it does take place (optionally) when /nò/ is the auxiliary verb of an AVP (note that /nò/ is the only auxiliary verb ending in /o/ or /a/, and thus the only one relevant to the present rule):

[wó-no nú qú-m] 'They were eating'

Since the direct object is by definition a NP (see Chapter 6.4), this is further evidence that a rule defined on NPs must be extended to AVPs.

- vi) Tone lowering in a reduplicated syllable. A reduplicated syllable with underlying high tone acquires low tone when it occurs initially in a NP:⁸

/tsó/ 'take': tsò-tsó 'taking'

but retains its high tone elsewhere:

tukpá tsó-tsó 'bottle-taking'
bottle

We also find the low initial tone, however, in the reduplications of AVPs:

tsò-tsó-gé 'going to take'

Once again, we see that a rule mentioning the category NP must be extended to account for parallel behaviour in AVPs.

- vii) The rule of Genitive Pronoun Deletion eliminates the third person singular genitive pronoun /é/ before certain nouns, principally nouns of kinship relation:

{ *é nɔ̀vɪ́-á } 'his brother'
 { nɔ̀vɪ́-á }

{ ẽ dàdà(-á) } 'his mother'
 { dàdà-á }

This pronoun is also (optionally) deleted before certain postpositions:

{ ẽ gbó } 'near, with him'
 { gbó' }

The same pronoun, when occurring as object of the following verb in AVPs, may be deleted:

{ me ẽ ɔ̀o-gé ɔ̀o } 'I'm going to repair it'
 { me 'ɔ̀o-gé ɔ̀o }

(For further discussion of this rule see the next chapter.)

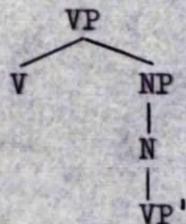
It appears that related phenomena can be cited from other dialects.⁹ Clearly, then, there is a wide range of rules in Ewe that require a double statement, once on NPs and again on AVPs.

6. Auxiliaries as Main Verbs. We have found, then, that with respect to one rule (Restructuring) the AVPs behave like nouns, while with respect to at least seven other rules, they pattern very much like NPs. These two characteristics are far from contradictory, of course, as the grammar predicts (by means of the PS rules) that unmodified nouns will have all the syntactic characteristics of NPs. It would be appropriate now to inquire whether we have any way of describing AVPs both as nouns and as NPs.

There have been recent proposals, in regard to English (see especially Ross 1969, Emonds 1969, Bolinger 1971) that the auxiliary verbs have and be are in fact main verbs (heads of VPs); Ross claims that this reanalysis of auxiliary verbs may be required in all languages having them, and points out that this would explain the apparently universal tendency for auxiliary verbs to stand in the same order relation to main verbs as (main) verbs stand to their objects.

We have already observed that in Ewe, all auxiliary verbs are homophonous with main verbs and retain an element of their meaning. This fact makes the proposition all the more plausible. If the Ewe auxiliaries could be reanalyzed as main verbs, the NP-like characteristics of AVPs could be automatically accounted for.

In order to investigate the consequences of this position, we may take advantage of PS rule 11, which allows N to be rewritten as VP. This rule predicts that structures of the following form will occur as base outputs:



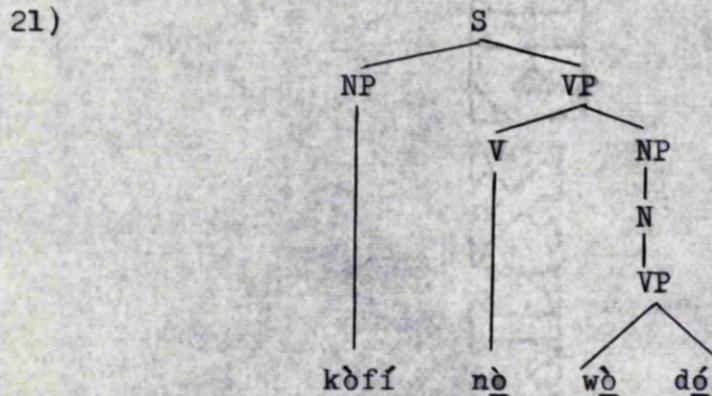
Let us see what the consequences would be of assuming that there is no constituent A in AUX, but rather that the hypothetical auxiliaries occur under the domination of V in the above structure, while the AVPs are precisely those VPs which occur under the domination of N in such structures. We can see that this hypothesis would account for all the facts we have described to date, except for the occurrence of the affixes /m, gé/; let us assume that these, too, can be accounted for by the present hypothesis, perhaps by insertion or by generation as a sister to VP'.

In this form, the Auxiliary-as-Main-Verb proposal is not identical to those made by Ross or Emonds. According to Ross's approach, full sentences would be generated under the direct object node NP, and the rule of Equi-NP Deletion would eliminate the NP node of the embedded sentence. Thus, the lower VP node (VP') would be dominated by NP but not by N, and therefore does not give us the desired results. Emonds' proposal (in section 2.2.2) would have VP' directly dominated by the higher VP, and thus would assign the Ewe AVPs neither N- nor NP-like characteristics.

We shall suppose, therefore, that underlying sentences such as (20):

20) kòfí nò dò wó-m 'Kofi was working'

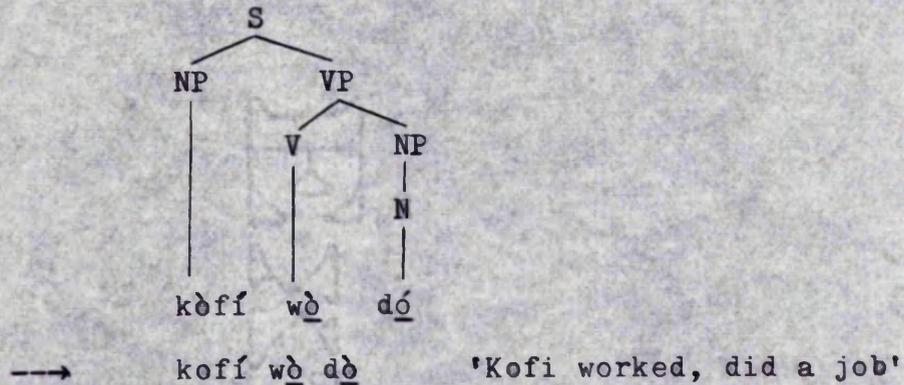
we have phrase-markers such as (21):



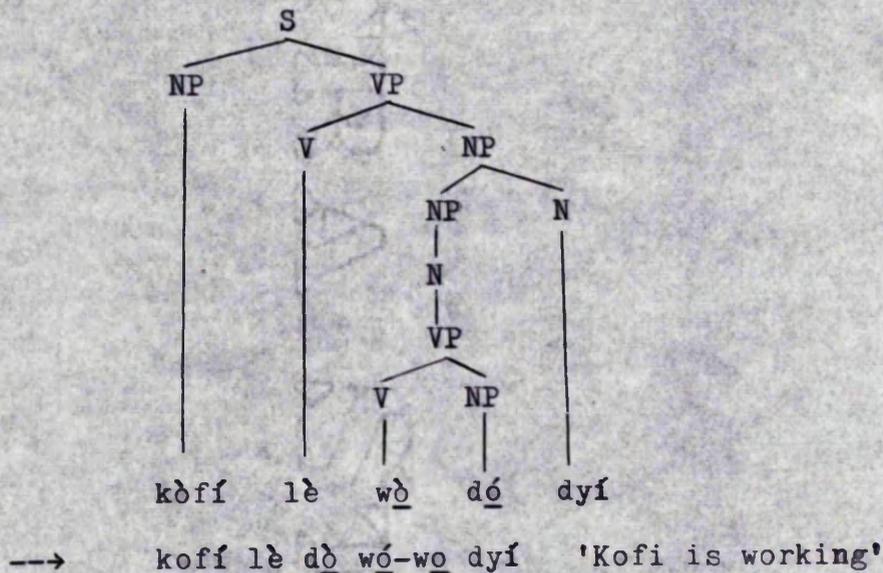
This analysis must stand or fall on the basis of the empirical consequences it has for the rest of the grammar. In fact, we can show that the 'Auxiliary-as-Main-Verb' analysis makes a large number of wrong predictions for Ewe. We can show that in many cases, structures like (21) fail to undergo certain operations which they should undergo, or else undergo them in an unexpected way.

The analysis predicts that structures such as (21) should behave similarly, in all relevant respects, to the structures (22) and (23) below:

22)



23)



(22) represents the deep structure of the sentence /koff wò dǒ/ 'Kofi worked, did a job'. Here, the NP /dǒ/ is formally parallel to the VP /wò dǒ/ of (21), both being direct objects of the main verb. (23) represents the deep structure of a sentence involving the gerundive idiom /lè VP dyí/ 'be doing'; in introducing this form here, we anticipate our later discussion in Chapter 6.8. The interest of this construction in the present context is that we have here an instance of a VP (other than an AVP) functioning as the direct object of a main verb; the NP /wò dǒ dyí/ is formally parallel to the string /wò dǒ/ of (21), both again being direct objects of a main verb. The presence of the postpositional noun /dyí/ 'on' does not, as we shall see, prevent the entire direct object sequence from behaving in all respects like the direct object /dǒ/ of (22). In fact, other idioms exist (see again Chapter 6.8) in which there is no postpositional noun, and these have the same syntactic properties as (23).

We shall now observe a number of properties common to direct objects, and therefore displayed by the NP objects of (22) and (23), which are not shared by AVPs.

- i) Distributional properties. Direct objects of verbs must, by definition, show the distributional (internal and external) properties of NPs. For instance, we expect of them that a head noun can be modified by a relative clause or by an adjective. This is the case with the direct objects of (22) and (23):

dǒ hi me-wò a... 'the work I did...'

dǒ wò-wò hi dyí me-le a... 'the work I'm doing...'

dò sésé mè-wò 'A hard job, I did'
hard

dò wó-wo sésé dyí mè-lè 'Working hard, I am'

The AVPs do not have these properties:

*dò wó-m hi me-le a...

*dò wó-m sésé mè-lè

- ii) the NP linker. To turn to the external syntax of direct object NPs, we may begin by observing that direct objects, like any other NPs, may be linked by the NP linker /kplé/. This form is not used in the coordination of sentences or VPs, thus provides useful evidence toward the syntactic analysis of problematic forms:

dò kplé fèfé 'work and play'

mè-dzè dò wó-wo kplé 'I began working and singing'
hà dyl-dyl gòmè

(where /dzè VP gòmè/ = 'to begin doing'). This information suggests that the direct objects of (22) and (23) are indeed NPs, as the phrase-marker indicates. However, the hypothetical direct object of (21) - that is, the AVP - cannot be so linked:

*koffi nè dò wó-m kplé hà dyl-m

*koffi nè dò wó(-wo) kplé hà dyl-m

- iii) Pseudo-cleft constructions. In general, we find that direct object NPs may be related to the NPs occurring as rightmost elements of semantically related pseudo-cleft constructions. Thus, the predicate nominals of the following sentences are understood as the objects of the main verb of the relative clause:

nú hi me-wo é-nyé dè
'What I did was a job'

nú hi dyí wò-yì é-nyé dè wó-wo
'What he went on (doing) was working'

(where /yì VP dyí/ = 'to go on doing'). We find that AVPs may not occur in such constructions:

*nú hì wò-nò é-nyé dè wó-m

*nú hi-m wò-nò é-nyé dè wó-wo

- iv) Restructuring. Direct objects of verbs may satisfy item 2 of the structural description of Restructuring (p. 89), in which case they are preposed and the verb is reduplicated:

dè wó-wo 'working'

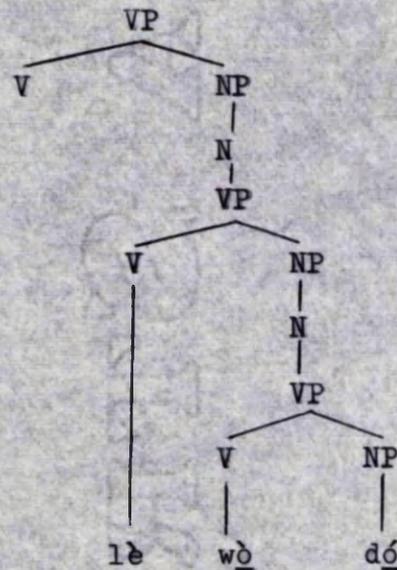
dè wó-wo dyí no-no 'being (staying) on the job'

However, AVPs never satisfy the structural description of Restructuring:

*dè wó-m no-no *dè wó-m no-m

*dè wó-gé no-no *dè wó-m no-gé

In particular, AVPs are not recursive. But if auxiliaries are analysed as main verbs, there is no way of preventing recursion without adding *ad hoc* conditions on base outputs to the grammar, and thus no way of preventing structures such as the following, which underly the starred forms:



We might add that these facts cannot be explained in terms of semantic constraints, since ungrammatical structures such as the following are semantically well-formed:

**mè-lè dè wò-m no-gé* ('I'm going to be working')

- v) Cooccurrence restrictions. We have already seen (Chapter 2.6) that the incipient formatives /*lè gé*/ do not cooccur in clauses with tense formatives: the future, the habitual, the imperative, or the subjunctive:

**me-bé nà- {nò/lè} dè wò-gé*
say

We added a condition to the grammar making explicit mention of this fact. If /*lè*/ were a main verb, we should expect this restriction to hold good everywhere, and thus /*lè*/ would never cooccur with a tense formative; but as we have seen, /*lè*/ has the alternate phonological form /nò/ in such contexts.

vi) Serial constructions. We have mentioned elsewhere that Ewe, like many other West African languages, employs a type of verb phrase coordination usually known as 'serial' construction or 'serialization'.¹⁰ In general, it appears that all members of a series must be identically marked for tense, though not for aspect; certain tense sequences are clearly not acceptable. Thus, if we look at some examples with the serial idiom /nò tyì kú/ 'drink water die' = 'drown' we find that the presence of the incipient in one member of a series imposes the presence of either the incipient or the consecutive tense marker /á/ in the subsequent member:

{	é tyi no-gé kù-kú-gé	} 'He's going to drown'
{	é tyi no-gé á-kú	
	*é tyi no-gé kú	

If we analyse /lè/ (occurring in the deep structures of the above examples) as a main verb, we would here have a unique case of the selection of a certain verb imposing the condition on the verb of the next member of the series that it must differ from it in tense-aspect selection.

We observe, then, a consistent difference in behaviour between AVPs and direct objects of main verbs. If we were to maintain the 'Auxiliary-as-Main-Verb' analysis for Ewe in the face of this evidence, we would be forced to add a complex and unmotivated set of restrictions and conditions to the grammar. On the other hand, all of the above facts can be explained in a straightforward way on the assumption that auxiliary verbs have a special syntactic status differentiating them from main verbs. We conclude

that the phrase structure analysis of these forms given in section 2 is to be preferred to the alternative discussed in this section.¹¹

7. A Proposed rule of tree-grafting. At first sight, the sets of facts discussed in each of the last two sections appear contradictory. In sections 4 and 5 we saw that the AVPs undergo a number of rules which are otherwise defined only on the domain of the noun (Restructuring) or on NPs. This suggests that in regard to these rules, the AVPs may be considered as NPs. However, in section 6 we saw that these verb phrases cannot be analysed as the objects of main verbs. Arguments (i) - (iv) showed that AVPs do not have the distributional properties of noun phrases, while arguments (v) and (vi) showed that the forms we have proposed as auxiliary verbs have properties different from those of main verbs.

In regard to certain facts, then, the AVPs behave like NPs, while in regard to other facts they behave quite differently. In this section we shall attempt to find an explanation for these apparently random, contradictory phenomena.

We shall find it helpful to class our evidence into two sets of arguments, those bearing on the deep structure analysis of AVPs and those bearing on their derived structure. To begin with the former, it seems clear that AVPs must be analysed as VPs and not NPs at the level of deep structure. We want to consider them VPs because they are structurally parallel to other VPs in all respects except for the attached affixes /*á*, *gé*/; and these, we have argued, do not originate in the VP, but in AUX.

In particular, grammatical relations such as 'subject-of', 'object-of' are defined at the level of deep structure (Chomsky 1965.73-74, 113-20; Katz 1970). These relations are independent of selection within the AUX complex. If we were to claim that AVPs are not VPs in deep structure, we would be forced to maintain that the noun /xò/ 'house' is the object of the verb /tù/ 'build' in (24), below, but bears some other relation to it in (25):

- 24) kofí tù xò 'Kofi built a house'
 25) kofí xò tu-gé 'Kofi is going to build a house'

At the same time, we cannot consider the AVPs as 'also' NPs at the deep structure level, for the reasons seen in section 6 (arguments (i) - (iv)). If the AVPs were NPs at that level, then they should accept noun and NP modifiers and have the same syntactic distribution as other NPs; but we saw that they do not have the internal structure of NPs, nor do they permit linking by the NP linker /kplé/, enter predicates of pseudo-cleft constructions, or occur in VPs under the direct domination of N (which would define Restructuring). All these are theoretically possible frames for object NPs.¹²

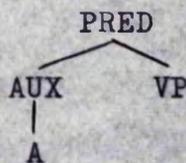
The evidence for the derived structure of AVPs was presented in section 5, in the form of a series of transformational rules which are defined equally on NPs and AVPs. If AVPs are not in fact NPs at this level, this means that Ewe has at least seven rules which require the bracketing of NP (or N) and VP. Since the evidence is clear that Ewe somehow has the property of considering these two types of structures as equivalent, we should look for a means of stating this equivalence once and for all somewhere in the grammar, rather than repeating it each time a rule makes reference to NP. We should note

in support of this statement that we know of no rules defined on NPs which do not also apply to otherwise suitable AVPs, i.e., to AVPs meeting their structural description in all other respects. (Even if a class of such rules should be discovered, it would not necessarily constitute evidence against the equivalence of NPs and AVPs. It might be discovered, for instance, that the class of rules in question could be independently defined by some property common to all of them, for instance, that they formed a block in the ordering which preceded all those rules in which NP is equivalent to AVP. In such a case, the statement of equivalence would have to be ordered with relation to the transformational rules.)¹³

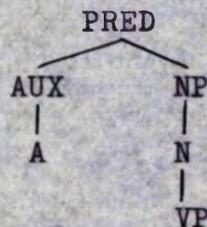
Failure to provide a single statement equating NP and the AVPs would amount to claiming that it is only an accident that NPs are consistently bracketed with AVPs in the transformational rules, when it seems to be a significant property of the language.

We shall therefore provide a descriptive statement of the facts we have discussed to now in the form of a rule of tree-grafting. While we do not know the exact form this statement must take, it must have the following effect: it must extend a tree (sub-phrase-marker) of the form (26), below, to one of the form (27):

26)



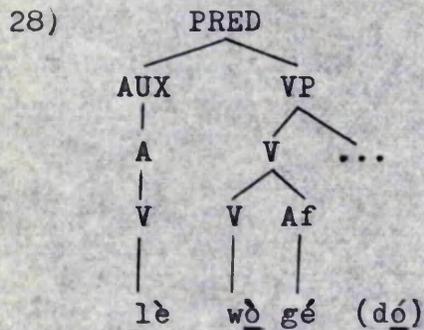
27)



(Alternately, we might consider all categorial nodes to be sets of features: NP is interpreted as /+NP/, etc., following Chomsky 1970. In this case, our descriptive statement would take the form of a feature-inserting rule converting a node /+VP/ into a node /+VP, +NP, +N/. These statements appear to be descriptively equivalent in regard to the behaviour of the AVPs, and we shall not attempt to defend one over the other.)

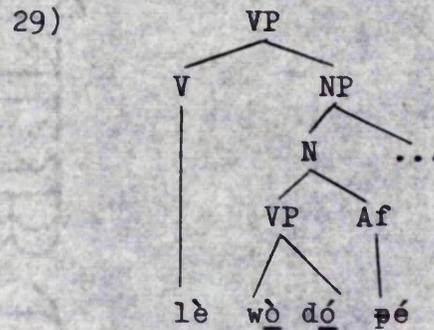
Such a statement, unfortunately, explains little or nothing about the phenomena we have been describing; it merely makes our description a bit more cohesive. If previously we have asked why Ewe transformational rules should treat AVPs as if they were equivalent to NPs, we now must ask why Ewe should have a rule of tree-grafting.

Our present knowledge of the history and the dialectical variants of Ewe is insufficient to allow us to come to any definite conclusion. We should like, however, to offer a suggestion which later investigation may be able to confirm or disprove. We have already observed that the AVPs are structurally very similar to certain nominals, namely those formed with affixes. In fact, we have seen that a single rule of RED-deletion is defined on both these forms (section 3). Not only are these forms parallel in terms of string analysis, we find that they are structurally isomorphic. Thus, comparing a PRED containing an AVP (28) with a VP containing an affix nominal, we see that a regular correspondence can be established between their respective branching nodes:



---> lè d̀ò wò́-gé

'is working'



---> lè d̀ò wò́-pé

'is at the workplace'

Thus, the node PRED in (28) corresponds to VP in (29), AUX corresponds to V, and so forth.

We see that the effect of the tree-grafting rule is to bring (28) more in line with (29), VP now being itself characterized as NP. It is as if the structural analogy between (28) and (29) were such that (28) is subtly modified so as to undergo all syntactic rules which (29) may undergo. Thus, a number of transformational rules which would otherwise only have been defined on deep-structure NPs are extended to structurally analogous VPs.

If this approaches the correct explanation of these facts, it would follow that the existence of structures such as (28) - which, it will be recalled, are derived structures, formed by Affix-movement - is a necessary precondition for the presence of tree-grafting in the grammar. As a result, any dialect of Ewe not having Affix-movement, and therefore not having structures like (28), would not have tree-grafting, and would therefore have no restructured VPs. It would be very instructive, therefore, to find a dialect of Ewe which has the aspect formatives but no Affix-movement.

One such dialect has been described. Gě, according to Schroeder 1936, has four formal means of expressing the progressive, of which only two (apparently the most frequent forms) need concern us here. Among other examples we find sentences like the following (our own tonal notation is used, otherwise the transcription is Schroeder's):

30) wólè ékpòè 'They were looking at him' (p. 57)

Here, /wól/ is the subject pronoun 'they', /lè/ is the auxiliary verb, /é/ a particle which must follow /lè/ in this construction, /kpò/ the verb 'look at', and /è/ the object pronoun 'him'. In spite of Schroeder's efforts to identify the form /é/ with the third person singular subject (or genitive) pronoun, it seems clear that it corresponds in function to the aspect affixes of Anlo. Thus, the progressive is formed in Gě by the forms /lè é/, corresponding to Anlo /lè m/. We might further recall that the affix /m/ has the alternant /mé/ in Anlo; if we set this up as a base form, we find that Anlo and Gě compare in that Anlo elides the segment /é/ while Gě elides the segment /m/.

We observe first of all that the aspect formatives remain unpermuted. Thus, in Gě we find surface structures corresponding to the abstract deep structures we had set up (in Chapter 2) for Anlo and justified on the basis of evidence internal to this dialect. Secondly, we see that the verb precedes its object, and thus may conclude that Restructuring has not taken place. Sentences like (30) therefore bear out the predictions made by our attempt to explain tree-grafting as an analogical formation based on structures like (29).

Other examples given by Schroeder may help us to confirm this conclusion about the structure of Gě.

If the progressive form exemplified by (30) really is not eligible for Restructuring, we should expect that an intransitive verb will remain unreduplicated. This is in fact the case:

- 31) wòlè étá 'you were crawling' (/tá/: 'crawl')
(p. 55)

Another progressive construction, employing the formative /kò/ postposed to the VP, shows that Restructuring is defined elsewhere in Gẽ:

- 32) mùlè yìyì kò 'I am/was going'
33) wógbàlè lǎḡḡè kò 'They were still fishing'

(both examples p. 54). In both examples, /kò/ has been reduplicated; this suggests either that Gẽ does not have RED-deletion, or that /kò/ is not an affix but a post-position, and /lè...kò/ 'be VPing' an expression parallel in form to expressions like /lè...dyí/ 'be VPing' in Anlo. In (33), /gbà/ is the repetitive preverb (= /gà/ in Anlo), /lǎ/ is 'animal, fish' and /ḡḡè/ 'remove, extract'. Thus we see that part A of Restructuring, the preposing of the object, takes place as well.

To summarize this section, it appears that the apparently contradictory facts examined previously may be described in terms of a rule of tree-grafting, which inserts the nodes NP and N over the node VP when this contains one of the aspect affixes /m, gé/. This rule has the effect of enabling such VPs to undergo the same series of rules as the structurally analogous nominals we examined in sections 1 and 2.

THE PRONOMINAL SYSTEM

The pronominal system of Ewe is intimately related to its verbal syntax. We begin this chapter with an examination of the (synchronic) source of definite pronouns within the grammar (sections 1-3). We then turn to the rules which account for the morphologically reduced forms (section 4), to a brief survey of the indefinite forms (section 5), and to the self-reporting pronoun (section 6). Finally, we review the relatively restricted area of pronominal syntax (sections 7-8).

1. Definite pronouns. According to the traditional view, pronouns are forms which substitute for nouns (or noun phrases). This view is not without its difficulties. For instance, it is not always clear exactly what noun or noun phrase a given pronoun substitutes for; in many cases we observe pronouns occurring in sentences which contain no coreferential expression. We understand the intended reference only by placing the form in relation to its linguistic or non-linguistic context.

In the case of the first and second person (or 'dialogue') forms, this situation is the normal one, as co-referential nouns or noun phrases do not generally appear in the linguistic context.¹

Within the theory of transformational-generative grammar there have been two principal proposals for introducing definite pronouns into the structures underlying sentences. The first, or transformational, approach consists of deriving at least some pronouns through a transformational rule (for various versions of this approach see the papers by Lees and Klima, Langacker, Ross, and Postal in Reibel and Schane 1969). This approach is not unnatural for the third person forms, apart from the problem mentioned above; Ross has also suggested a way of extending it to the dialogue forms (Ross 1970b.250). The second proposal, which we may call the interpretivist or phrase-structure approach, consists in generating all pronouns directly in the base; a set of interpretive rules is added to the grammar which has the dual function of 'interpreting' the reference of these forms, ^{and} 'filtering out' sentences containing incorrectly placed pronouns (see Jackendoff 1968).

These two proposals are nearly, but not quite, equivalent in their descriptive claims. As the issue is far from resolved, and not of central importance to our concerns, we shall arbitrarily select the first approach on the basis of its greater familiarity. We shall suppose that at least some pronouns enter structures through transformational processes, while others may enter base structures directly. To account for the latter we must add the following PS rule:

PS rule 5c: NP → PRO

The forms introduced by this rule and by the later rule of Pronoun Substitution (section 3) will consist only of members of the following set, which we call the strong forms:

	<u>singular</u>	<u>plural</u>
1.	nyè	míáwó
2.	wò	míáwó
3.	yé	wóáwó

The plural forms seem to be morphologically complex: /á/ can be identified with the definite article, and /wó/ with the plural formative (Westermann 1930.58).

The pronouns function syntactically like definite noun phrases. This is shown by distributional relationships such as the following: before the partitive expression /dè wó/ 'one PLUR' = 'some of' only definite NPs may occur:

ame a dè wó	'some of the people'
*ame dè wó	
cf. míá dè wó	'some of us'

2. Pronominalization. In this section we shall look at three operations which cause pronouns to enter intermediate structures. First of all, we notice that it is awkward to repeat a noun phrase which has already occurred in a sentence, when the reference of both forms is identical. Normally, one of the noun phrases is represented by a pronoun:

ně etyi d_ó a, é fu ðe -gé ná wò
 water rise trouble extract

'If the water rises, it (= the water) is going to bring you trouble'

Here, the repeated occurrence of /tyl/ 'water' is avoided by the use of the pronoun. We shall account for the pronoun in sentences of this sort by a rule of Pronominalization. Since this rule does not move or copy constituents, but only adds the feature /+PRO/ to the appropriate noun phrase, it is a feature-changing rule. It therefore reaches down into any number of embedded sentences, i.e., it is not downward-bounded (see Ross 1967). In general, any noun phrase may be pronominalized when an antecedent precedes it.²

1) PRONOMINALIZATION

$$\begin{array}{ccccccc} X & NP_i & Y & NP_j & Z & & \\ \hline & 1 & & 2 & 3 & \longrightarrow & 1 \left[\begin{array}{c} 2 \\ +PRO \end{array} \right] 3 \end{array}$$

Cond.: $NP_i = NP_j$ in reference

If the antecedent is in the same simplex sentence - that is, when the first node S dominating both nodes NP is the same - then the reflexive formative is introduced:

In formulating the rule of Extraction, several factors must be taken into account. First, we see that the copied noun phrase is placed outside of the original sentence in derived structure, due to the fact that the sentence-initial pronoun series is used rather than the sentence-internal forms (this alternation will be treated below, section 4). Thus, for instance, we find the sentence-initial subject form /é/ rather than the impossible sentence-internal form /wò/:

*'émá a, wò-sò gbò ná ì

Noun phrases may be extracted from object position:

konú má a, wó-yó-nǎ-é bé tégàyíwòwò
 custom call

'That custom, they call it (= it is called) "tegayiwowo"

or from within noun phrases, leaving behind noun phrase modifying elements:

kofí a, yí háã dyí tsó àsí-nyé bé...
 he too seek from hand my

'Kofi, he too requested from me that...'

although alternatively, the modifying element may be extracted as well:

kofí háã a, é-dyí tsó àsí-nyé bé...

'Kofi too, he requested from me that...'

This fact, together with the fact that either /kòfí/ or the full NP /kòfí háã/ may be pronominalized, suggests that both of these substrings must be characterized in the grammar as NPs. Forms like /háã/ will be considered as noun phrase 'emphasizers', and will be entered into

occurrence of a subject NP;

- ii) the pause marker /à/ cannot follow the shifted NP;
- iii) there is no intonation break after the copied NP.

This rule is frequently applied in the presence of the sentence-emphasizer /ǫ̀è/:

{ ǫ̀è ne-vá à
èwò ǫ̀è ne-vá à } 'Did you really come ?!ok?'

{ ǫ̀è kòdzó gbò-nà à
kòdzó ǫ̀è wò-gbó-nà à } 'Is Kodzo really coming back?'

nyonuvi ǫ̀e wòkpea nu ɓe 'A woman has a little shame!'
woman be-ashamed (TA)

Shifting is normally obligatory in the case of first and second person subject pronouns when they are followed by a NP emphasizer EMP, or by an appositive noun or noun phrase; it is usually optional with third person pronouns:

enye háǎ me-vá-yà-nò àfí má

'I, too, finally went and stayed there'

compare:

*enye háǎ vá-yà-nò àfí má

yí háǎ vá-yà-nò àfí má 'He, too, etc.'

Following are some further examples:

míá ǫ̀eví wó míé-kpó -nú á dǔú
child see fixedly

'We children stared at (= brooded about) the thing'

enye koffí me-vá kpó wo dá (/kpó àmè dá/ 'visit someone')

'I, Kofi, came to visit you'

xexeme sia nye agamagbalé la, ye wò ya nèle dzidzo kpom ale
 world chameleon- and joy see so
 skin

'This world is a chameleon's skin, and you are so happy!'

(TA)

(in the last example, /yáá/ is a NP contrastive emphasizer).

A further difference between this rule and Extraction is that any EMP occurring in a NP must be copied to the left with it; therefore, the rule must explicitly mention this node. This rule, like the former, will be ordered before Pronominalization, which will apply obligatorily to its output. We state it as follows:

3) SHIFTING

$$\left[\begin{array}{cccc} X & NP & (NP) & Y \\ S & \underbrace{\hspace{2cm}} & & S \end{array} \right]$$

1 2 3 ---> 2 + 1 2 3

We have included an optional appositive node NP which has not however been provided by our PS rules. The formulation is quite approximative and awaits a more thorough investigation.³

3. Pronoun substitution. We have now seen two ways in which pronouns enter structures. They may be present in base structures themselves, entered from the lexicon under the domination of the node PRO (section 1); or they may result from the operation of Pronominalization,

which places the feature /+PRO/ on appropriate NP nodes (section 2). We now require a rule replacing all noun phrases having the feature /+PRO/ with the appropriate pronouns.

This rule must be able to select the correct pronoun even in the case of conjoined NPs, that is, NPs whose person and number features cannot simply be 'read off' from the head noun. Observe the following sentences, in which Shifting has (obligatorily) taken place:

enye kplí wo míě-vá	'I and you (we) came'
enye kplé kofí míě-vá	'I and Kofi (we) came'
ewo kplé kofí mie-vá	'You and Kofi (you) came'
yě kplé kofí wǒ-vá	'He and Kofi (they) came'

As these examples show, the grammar must contain a calculus which assigns person and number features to any NP node which has the feature /+PRO/. In the case of non-conjoined NPs, the person and number features are 'summed' in the appropriate way and assigned to the dominating NP node.

This calculus is very easy to state for Ewe, due to the fact that, in any conjoined NP, if a first person pronoun is present, it must be the leftmost conjunct; otherwise, a second person pronoun, if present, must be leftmost. As a result, an NP node dominating conjoined NPs is simply assigned the person feature of the left-most conjunct, and always receives the number feature /+PL/.

Optionally, the same calculus may assign the feature /+PL/ to the leftmost of the conjoined NPs, if it is a pronoun. This gives us the following grammatical

variants of the earlier examples:

mí kplí wo mǐé-vá	'I and you (we) came'
mí kplě kofí mǐé-vá	'I and Kofi (we) came'
mi kplé kofí mie-vá	'You and Kofi (you) came'
wó kplě kofí wǒ-vá	'He and Kofi (they) came'

We shall give the rule for pronoun-substitution in the form of a schema which collapses the six rules that would be required in a full statement. It provides that any string exhaustively dominated by a NP with the feature /+PRO/ is replaced by a pronoun from the list of strong forms (section 1) such that its person and number features match those assigned by the calculus to the NP:

4) PRONOUN SUBSTITUTION

$$\begin{array}{ccc}
 X & \left[\begin{array}{c} Y \\ \text{NP} \end{array} \right] & Z \\
 & \left[\begin{array}{c} +\text{PRO} \\ \alpha \text{ pers} \\ \beta \text{ Pl} \end{array} \right] & \\
 1 & 2 & 3 \quad \dashrightarrow \\
 1 & \left[\begin{array}{c} \text{pronoun:} \\ \alpha \text{ pers} \\ \beta \text{ Pl} \end{array} \right] & 3
 \end{array}$$

This is an unusually strong rule, in that it requires features in the structural description, and calls for the use of alpha notation, variables over feature coefficients (this would not be required, however, in the expanded statement of the rule). What makes this rule even more dubious is the fact that it is a mere formal consequence of the descriptive model we have chosen (the 'transformationalist' approach to pronouns) and has no independent

descriptive value. It would have been quite unnecessary if we had chosen the 'interpretivist' or phrase-structure model exclusively.

4. Pronoun reduction. We have reviewed the ways in which the strong forms are introduced into base and derived syntactic structures. We must now account for the phonologically reduced forms, or alternants:

singular	strong	weak		
		subject	object	genitive
1.	nyè	mè	ɲ	nyè
2.	wò	è (nè)	wò	wò
3.	yé	é (wò)	è	é
plural				
1.	míáwó		mí	míá
2.	míáwó		mì	míá
3.	wóáwó		wó	wó

An intrusive /e/ (see p. 12) follows the weak subject pronouns /mí/, /mì/; see examples of the previous section. The strong forms /nyè/ and /wò/ frequently receive prefixes /è/, as many of our examples have demonstrated, though these prefixes do not occur in written Ewe. The third person singular object becomes clitic through Word Boundary Reduction (Chapter 2.2) and is assigned its phonetic form by the rule exemplified on p. 12; as we have seen, it is written 'i' after high vowels. The singular subject forms given in parentheses are the sentence-internal forms. Finally, the first person genitive pronoun is reduced to the clitic /è/ in AVPs.

We observe that the subject/object contrast is neutralized in the plural, this distinction depending entirely upon order.

The rules involved in pronoun reduction require syntactic and lexical information. In this respect they differ from purely phonological rules such as the rules of vowel sandhi and other low-level rules of assimilation, etc., which follow them in the ordering. There are two typologically distinct sorts of environments which determine pronoun reduction:

- i) environments which are common to most or all of the six forms (the paradigmatic environments);
- ii) environments which have no systematic significance in the pronominal system.

We shall look at these in turn.

Although the three paradigms of reduced forms (subject, object, genitive) were noted as early as 1905 by Westermann (p. 23*), one of their most interesting properties was overlooked. The reduced forms are used only if the pronoun in question occurs as the sole constituent of the maximal NP, i.e. if it has no modifiers; the strong forms are retained whenever they occur with a modifier of any sort. This, which we might call the condition of sole constituency, may be illustrated by the following examples:

subject paradigm

me-kpó kòkú	'I saw Koku'
enye e kpó kòkú	'It's I who saw Koku'
è-yì kětá à	'Did you go to Keta?'
wo nùtó yì kětá à	'Did you go to Keta yourself?'

object paradigm

òwúsú kpó ò	'Owusu saw me'
òwúsú kpó nye háà	'Owusu saw me, too'
me-kpó-è	'I saw him'
me-kpó yé nùtó	'I saw him, himself'

genitive paradigm

é yó-yó	'calling him'
yé wó yó-yó	'his calling'
míá dyí	'our top' = 'upon us'
míáwó háà dyí	'upon us, too'

We see that in all cases, the strong form of the pronoun is retained when it has a following modifier. These examples show that the pronoun reduction rules construct what is in effect a surface case system, just in case the pronouns involved are unmodified; otherwise, the strong forms are retained and overt case distinctions are neutralised.⁴

Let us examine the form that the statement of these reduction rules must take. Observe that object pronoun reduction occurs only when the pronoun in question is preceded by a verb. The rule applies even if the pronoun is the second object of a ditransitive verb such as /ná/ 'give':

é-ná àhà mí	'He gave us drink'
drink	

Thus the environment of the rule includes the following information: V (NP) —, where the NP in parentheses is the first object just in case it is the second object of

a ditransitive verb which satisfies the position marked by the dash. This is not yet sufficient, however, since reduction does not take place even in this environment if the pronoun is not an object:

kofí sè nyè nya wó 'Kofi heard my words (= speech)'
 hear word

Here, the first person singular genitive pronoun /nyè/ is not of course reduced to /m/, because it is not the object of the verb, although it immediately follows it. Our phrase structure rules 3 and 4 allow us to reformulate the environment of this rule in such a way as to prevent it from applying incorrectly to structures like the above. They define VP constituents consisting of V and zero to two NPs. Therefore we can restate the environment as

$$\left[\begin{array}{c} \text{V} \quad (\text{NP}) \quad \text{---} \\ \text{VP} \qquad \qquad \qquad \text{VP} \end{array} \right]$$

The example above does not meet this description, since the VP in that example contains the entire NP /nyè nya wó/ as object.

This environment is not yet sufficiently general, however, as object pronoun reduction applies as well to the objects of 'verbids' such as /ná/ 'for, to' and /kplé ~ kplí/ 'and' (the NP linker). We shall discuss the verbids in greater detail in Chapter 6; for the present we may note that the grammar will characterize them as members of the category V. The following are examples of object reduction after verbids:

é-dǒ	gbè	ná ò	'He greeted me'
emit	voice		
mi	kplí	wó	'you and they'

As a verbid together with its object constitutes a single constituent, we may generalize the environment of the rule to cover such cases simply by eliminating the labels on the brackets of the structural description, since no other constituents in the grammar meet this description. The environment may therefore be stated:

$$[V \text{ (NP) } \text{---}]$$

The following reductions take place in this environment:

nyè	---	h
yé	---	è
míáwó	---	mí
mìáwó	---	mì
wóáwó	---	wó

The structural description and the structural change of each of these rules are therefore different, but the environment, as given above, is the same in all cases. Since all these rules fall together in the rule ordering, they may be condensed into a single rule schema by the use of the brace notation (see Chomsky and Halle 1968 pp. 333,394). Similar considerations apply to the subject and genitive paradigms. We may therefore state the paradigmatic reduction rules as follows:

5) PARADIGMATIC REDUCTION

subject pronouns

$$\left\{ \begin{array}{l} \text{nyè} \longrightarrow \text{mè}^5 \\ \text{wò} \longrightarrow \text{è} \\ \text{yé} \longrightarrow \text{é} \\ \text{áwó} \longrightarrow \emptyset \end{array} \right\} / \text{--- (NEG) PRED}$$
object pronouns

$$\left\{ \begin{array}{l} \text{nyè} \longrightarrow \text{h} \\ \text{yé} \longrightarrow \text{è} \\ \text{áwó} \longrightarrow \emptyset / \left\{ \begin{array}{l} \text{mi} \\ \text{wó} \end{array} \right\} \text{---} \end{array} \right\} / \left[\text{v (NP) ---} \right]$$
genitive pronouns

$$\left\{ \begin{array}{l} \text{yé} \longrightarrow \text{é} \\ \text{wó} \longrightarrow \emptyset / \text{mia ---} \\ \text{áwó} \longrightarrow \emptyset / \text{wó ---} \end{array} \right\} / \left[\text{---} \left\{ \begin{array}{l} \text{N} \\ \text{V} \end{array} \right\} \text{X} \right]$$

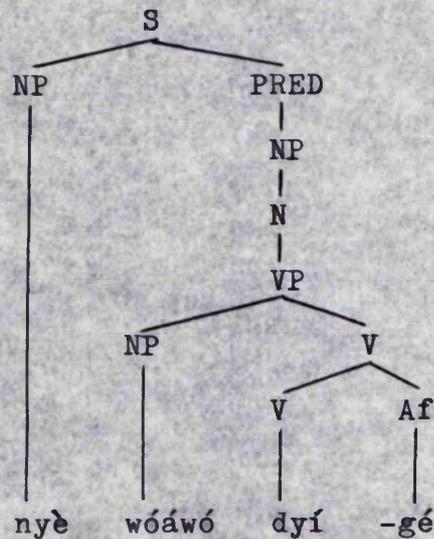
NP NP

Observe that in stating the environment of subject pronoun reduction, it is unnecessary to indicate by the use of brackets that a single constituent is involved, since a pronoun preceding the constituent PRED must necessarily be the subject in Ewe. On the other hand, in stating the environment for genitive reduction, it is necessary both to include the brackets and to label them, for otherwise the rule would be incorrectly defined on simple sentences consisting of a subject and an intransitive verb. The option V must be included in the statement of the rule so that it will apply to objects of verbs which have been permuted as a result of Restructuring:

me wó dyí-gé 'I'm going to look for them'

Here, it will be recalled that the string /wó dyí-gé/ forms a single constituent NP as a result of tree-grafting,

while the string /dyí-gé/ is characterized as a verb by Affix-movement. When all syntactic rules have applied, including Restructuring and RED-deletion, we have the following derived structure:



We can see that /nyè/ meets the structural description of subject reduction, and /wóáwó/ that of genitive reduction, and thus Paradigmatic Reduction applies to generate the surface form given above.

It appears, then, that we have given the simplest possible statement of this rule consistent with our data. We now find that the sole constituency condition is an automatic consequence of the formalization we have adopted, and needs no special statement; examining the rules, we see that no modified pronoun will ever meet the conditions stated in any of the structural descriptions. In the case of subject and genitive reduction, this follows obviously from the fact that any pronoun, to be defined, must precede the following element of the structural description immediately; as all modifiers follow the head noun or pronoun in Ewe, no modified form

The latter case is blocked, however, if the pronoun in question occurs in the environment $[_S C_a \text{ --- } \dots]$, that is when preceded in the sentence only by a member of a certain subclass of conjunctions or linkers, a class containing the majority of conjunctions but excluding such common forms as /éhì/ 'when', /éyé/ 'and', /háfí/ 'before', and /ḡòkò/ 'only':

né e-vá kábá a... 'If you came soon...'

but:

éyé ne-vá kábá 'And you came soon'

Finally, as we shall see in section 7 below, this rule does not apply if the pronoun is preceded in the sentence only by the negative marker /mé/.

Taking all these facts into account, we can state this rule as follows:⁶

6) SENTENCE-INTERNAL PRONOUN ALTERNATION

$$\left\{ \begin{array}{l} \text{è} \text{ ---} \rightarrow \text{nè} \\ \text{é} \text{ ---} \rightarrow \text{wò} \end{array} \right\} / \left\{ \begin{array}{c} \text{--- ná} \\ \left[\begin{array}{c} \text{X} \text{ ---} \text{PRED} \\ \text{S} \qquad \qquad \text{S} \end{array} \right] \end{array} \right\}$$

where /ná/ represents the subjunctive marker (see next chapter). We add the condition:

Cond. $X \neq \emptyset$ or C_a or /mé/

- ii) In our section on pronominal syntax (section 7) we shall describe a rule which permutes a first or second person pronoun with the first element to its right, in noun phrases (this rule was

already mentioned on p. 103). When as a result of this rule, the first person form /nyè/ immediately precedes an aspect affix, it is reduced to /è/:

$$\text{nyè} \rightarrow \text{è} / \text{---} \left\{ \begin{array}{l} \text{gé} \\ \text{m} \end{array} \right\}$$

The resulting form /è/ is clitic to the preceding verb, by Word Boundary Reduction (Chapter 2.2), and therefore triggers the phonological changes characteristic of Anlo clitics (p. 12). An [e] or [ə] is inserted after it to give the surface forms:⁷

dyí	'look for'	[kofí dyl è gé]
té	'surpass'	[kofí tì è gé]
tá	'draw'	[kofí tɛ̀ è gé]
wù	'kill'	[kofí wùì è gé]
ɸ̀̀	'strike'	[kofí ɸ̀̀ùì è gé]
kpó	'see'	[kofí kpòè è gé]

'Kofi is going to look for me', etc.

iii) the third person singular strong form /yé/ alternates with /yí/ quite freely, the constraints varying from speaker to speaker. Also, some speakers use the form /éyá/ as well, except before the genitive marker; this is the Standard Ewe form.

iv) before genitive markers, the plural pronouns /míáwó/ and /míáwó/ lose the ending /-wó/, and the pronoun /wóáwó/ loses the ending /-áwó/:

míá ɸ̀é, míá wó	'our'
wó ɸ̀é	'their'

- v) the ending /-áwó/ is (optionally) deleted before /kátáá/ 'all', in all plural pronouns:

{ mí kátáá { míáwó kátáá }	'all of us'
{ wó kátáá { wóáwó kátáá }	'all of them'

- vi) the first person singular subject pronoun /mè/ becomes /mé/ before the subjunctive marker:

kofí dyí bé má-vá (mé-á-vá) 'Kofi wanted me to
want that SJ come'

é-bé má-vá 'He said for me to
come'

This change does not take place before the future marker, which bears low tone:

é-bé mà-vá (mè-à-vá) 'He says I will come'

We state the rule as follows:

mè → mé / — á

We have claimed all along, without offering justification, that the rules which assign pronoun alternants are reduction rules. This claim is borne out by an examination of the operations performed by the rules: in nearly all cases, we are dealing with rules which delete segments or change one or two features. Thus, for instance, the rule nyè → mè probably involves a change of only one feature, the other being assigned redundantly by marking conventions. These facts give added reason to believe that the strong forms as we gave them in section 1, rather than (for instance) a set of

abstract feature matrices,⁸ correctly represent the underlying form of pronouns in Ewe.

5. Indefinite pronouns. In addition to the definite pronouns, Anlo has six indefinite pronouns which refer to distinct semantic classes of nouns:

àmè	'animate beings'
nú	'things'
nyá	'words, concepts'
àfí	'place'
gè...gí	'time'
àlé	'manner'

Apart from their use as full lexical items in their own right, they are used typically:

- i) to form questions, with the interrogative marker /kàá/:

ame ka gbó nè-dzè	'Whose place did you stay at?'
nú ká wo-gé nè-yì	'What did you go to do?'
nya ka e dzò	'What happened?'
àfí ká mà-tě nú á-đu nú lè	'Where can I eat?'
be-able eat	
ge-ká-gi wò-vá`	'When did he come?'
áléké nè-gblò	'What did you say?'

- ii) as 'dummy' object of a transitive verb, in place of a lexically specified noun or noun phrase:

e nú kpó-m à	'Are you looking?'
wó-yi ya-ple nú	'They went to make a purchase'

In this usage, the indefinite pronouns are redundant except to the extent to which they indicate the semantic class of the implied object; compare the following:

mé-yó nya nyúíé ò 'He doesn't pronounce well'
call word

me-yí ame yó-gé ka dyí 'I went to call person on
line on the line (to make a phone
call)'

Here, two distinct usages of /yó/ 'call', a transitive verb, are kept distinct by the different selection of the pronoun object. At the same time, the transitive /yó/ is kept distinct from the intransitive /yó/ 'be full'. The 'dummy' pronoun objects, then, are clearly a useful device in a language with an unusually large number of homophones.⁹

- iii) Finally, they are used as equivalents of the definite pronouns in certain circumstances, where they often suggest a somewhat disdainful point of view on the part of the speaker; in this usage, they are made definite by the addition of a definite determiner. Observe the following example of Extraction:

gàkpò wó a, nú má wó vá-vo le mǎ gbó
iron rod run-
out

'Iron rods, those things ran out on us (we ran out of them)'

In all these cases, the indefinite pronouns are observed to 'replace' nouns or noun phrases in some sense, but we shall not consider here the question of how they are to be introduced in the grammar.

6. The self-reporting pronoun. We now turn briefly to the discussion of a rule which introduces what we shall refer to as the 'self-reporting' form /yè/ into sentence structures. This rule is complex and of considerable interest for the information it gives us on syntactic structure; however, we shall not be able to consider all the questions it raises.

Armstrong (1963) proposed two criteria that might prove of interest in defining the 'Kwa' group of languages from a syntactic point of view. The first of these was the use of reduplication to form verbal nouns; the second was the contrastive use of two forms of a pronoun to distinguish, in reported speech, reference to the speaker from reference to other parties. He noted that such contrastive forms had been described for S. Idoma, and gave examples showing that Yoruba had them as well; similar phenomena can be shown in Igbo (Carrell 1970) and Avatime (Kevin Ford, personal communication). However, other Kwa languages, such as Akan, seem not to have it, while such non-related languages as Eskimo have been described as having something similar (Mey 1970).¹⁰

Westermann stated the rule for Ewe as follows:

Should the subject of the main sentence recur in any second or third person pronominal form (nominative, genitive, or accusative) in an object clause, when the main sentence contains a verb of saying, believing, thinking, wishing, wanting, ordering, etc., then it is expressed by yè, yèpé in the singular, yèwó, yèwópé in the plural. (Westermann 1907.57)

This statement is a bit unclear, because the forms /wó/ and /pé/ are not pronouns themselves, but rather (as we have seen) immediate constituents of noun phrases.

More significantly, the semantic basis of this definition obscures an interesting formal property of the rule.

The use of the self-reporting form may be illustrated by the following examples:

ě-bé ě-dzó	'He ₁ said he ₂ left'
ě-bé ye-dzó	'He ₁ said he ₁ (= the speaker) left'
e-bé wó-a-vá	'You (sing.) said they would come'
e-bé ye-wó a-vá	'You (sing.) said you (plur.) would come'

In the first and third of these examples, the speaker excludes himself from the person(s) he is talking about; in the second and fourth, he includes himself. We see therefore that the form /yè/ is used in subordinate clauses whenever the referent of the speaker is identical to, or included in, that of the person(s) he refers to.

In the above examples /bé/ occurs as a main verb; but this same form may occur as a complementizer to form subordinate clauses with other verbs, such as /dyí/ 'want', /ǫó nú/ 'reply', etc.:

e-dyí bé yè-à-dzó à

'Do you want that you leave (do you want to leave)?'

ě-ǫó ě nú ná ě bé ye háǎ, ye-mé-se-e kábá ò

'He replied to me that he too hadn't heard it soon enough'

ě-gblò bé òmè yè ǫù-ń
say stomach

'He said that his stomach was eafing him (aching)'

The use of /yè/ permits clarity of reference where the English gloss is hopelessly ambiguous:

ii) clauses of purpose:

ě-dò gò { ^{bé} } yè-à-ḡu nú 'He went out in order to eat'
 { _{né} }
 go out

ě-yi bé yè-à-kpó gà à 'He went to look at the money'

Purpose clauses such as these are different from clause complements of main verbs in that they are not characterized as sister-constituents of the main verb, but rather as incidental adjuncts, and do not appear to contribute to the syntactic subcategorization of verbs. A sentence is always grammatically complete without a purpose clause, while it is usually incomplete without a verbal complement.

iii) causative clauses:

kofí ná bé kòkú vá ye-gbó 'Kofi had Koku come to him'

In such sentences, the clause which follows /ná/ is not characterized as its direct object; thus, the rule of Habitual Formative Reduction is not defined (see example on p. 104), the clause may not be pronominalized, etc.

/yè/ does not occur in relative clauses unless it occurs at the same time in one of the environments (i) - (iii). Thus, it may not occur in the following sentence, even though a NP occurs in a subordinate clause which is coreferential with the subject:

kofí ḡó akú nyónúví hi dze ẽ (not: ye) gbó dyí
 set eye girl stay on

'Kofi set eye on (recalled) the girl who stayed with him'

Also, it cannot occur in clause complements following verbs of perception:

kofí sè kòkú wò-le ẽ (not: ye) dzu-ḿ

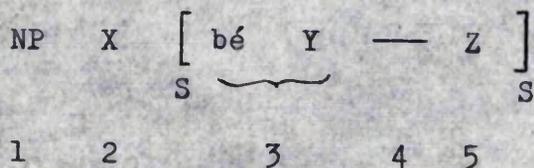
'Kofi heard Koku insulting him'

What is it, then, that distinguishes the environments in which the self-reporting form occurs, (i) - (iii) above, from those in which it doesn't? The rule as given by Westermann is too restrictive to cover cases (ii) and (iii); and as the last two examples show, we cannot simply extend it to any sort of embedded clause. What seems to be essential is the presence of /bé/, or one of its alternants (/né/, /béná/). Embedded sentences which do not have this complementizer do not permit /yè/.

We must also distinguish the optional cases (ii) and (iii) from the obligatory case (i). To anticipate later discussion, let us assume that the object clause-complements of type (i) are generated as noun phrases in underlying structures by PS rule 5b, while purpose and causative clauses are not. We can now generalize the discussion up to this point in the following way:

7) THE SELF-REPORTING PRONOUN

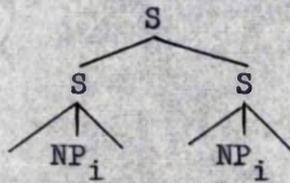
The form /yè/ occurs in the following class of syntactic environments:



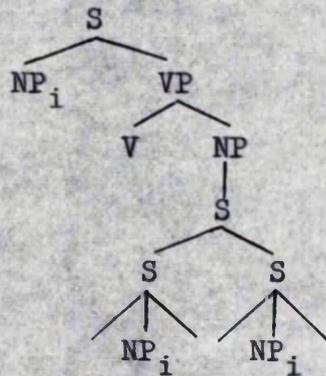
where the first node S dominating 1 also dominates 4, i.e., 1 commands 4. 1 is identical to, or included in, 4 in reference, and 1 is second or third person. /yè/ occurs obligatorily if 3-4-5 is a NP, otherwise optionally.

We do not give this statement in the form of a rule, because it is not yet known whether it will apply to deep structures or to derived structures, nor whether it is best stated as a transformational rule or an interpretive rule.

The condition '1 commands 4' is necessary in order to restrict /yè/ from occurring as the rightmost NP in conjoined structures of the type:



It will not prohibit /yè/ from occurring in conjoined structures provided the topmost node S is itself embedded as an object complement:



Thus, we find the following example of a structure of the latter type:

wò koe le susum be yemenye Lailie o eye Lailie hã menye ye o dzro

'So you're thinking you are not Lailie and Lailie isn't you!'

(MG)

7. The syntax of pronouns. We now turn to pronominal syntax, properly speaking. Compared with many languages, such as French and Spanish, Ewe shows a fairly straightforward system in which pronouns behave generally quite like NPs and require few special rules. In this section we shall consider the major deletion rules and two movement rules.

Pronouns may (or must) be deleted in certain syntactic environments. The most important are the following:

- i) Genitive Pronoun Deletion. As we saw earlier (Chapter 3, section 5) the third person singular genitive pronoun /é/ is optionally (for some speakers, obligatorily) deleted in certain circumstances: (a) before a verb followed by one of the aspect affixes /gé, á/:¹¹

{	é-yi é kpɔ́-gé	} 'He went to see it'
{	é-yi kpɔ́-gé	

- (b) before most members of the set of kinship nouns, in some cases obligatorily. As the set of exceptions is not semantically (or phonologically) predictable, each kinship term not undergoing this rule must be assigned a rule exception feature, all the others being assigned the corresponding plus-valued feature /+GPD/ redundantly:

{	*é fɔ́fó-á	} 'his father'
{	fɔ́fó-á	
{	é tɔ́gbí-á	} 'his grandfather'
{	tɔ́gbí-á	
{	é tɔ́ɖia	} 'his uncle'
{	* tɔ́ɖia	

- (c) finally, before a postposition; if this is high, it becomes raised in tone:

$$\left. \begin{array}{l} \{ \text{'é-le é sí} \} \\ \{ \text{'é-le sí} \} \end{array} \right\} \quad \begin{array}{l} \text{'It's at his hand' = 'he} \\ \text{has it'} \end{array}$$

As a result of the tree-grafting rule, we can include all these cases in a single rule:

8) GENITIVE PRONOUN DELETION

$$\acute{e} \longrightarrow \emptyset / \left[\begin{array}{c} \text{---} \{ \begin{array}{l} \text{N X} \\ \text{V} \end{array} \} \\ \text{NP} \qquad \qquad \qquad \text{NP} \end{array} \right]$$

- ii) Some speakers delete the second person singular genitive pronoun before one of the aspect affixes (but not elsewhere):

$$\left. \begin{array}{l} \{ \text{kofí tà -wò-gé} \} \\ \{ \text{kofí tà -gé} \} \end{array} \right\} \quad \text{'Kofi is going to draw you'}$$

Structures resulting from such deletion are very similar to structures resulting from deletion by the last rule; they are distinguished only by the contrast low tone/ mid tone, cf.:

kofí ta-gé 'Kofi is going to draw him'

This rule may be stated together with the rule reducing /nyè/ to /è/ in the same environment; therefore let us eliminate the rule stated under (ii) on pp. 141-2 and add the following:

$$\left. \begin{array}{l} \{ \text{nyè} \longrightarrow \text{è} \} \\ \{ \text{wò} \longrightarrow \emptyset \} \end{array} \right\} / \text{---} \left\{ \begin{array}{l} \text{gé} \\ \text{m} \end{array} \right\}$$

The following are the principal movement rules:

- i) In negated sentences, the realization of the substring 'PRO NEG' is somewhat irregular, as the following table shows:¹²

	PRO	NEG	(PRO)	V	S
1 sg	nyè	mé		dzó	nyè-mé-dzó ò
2 sg		mè		dzó	mè-dzó ò
3 sg		mé		dzó	mé-dzó ò
1 pl	mí			dzó	míé-dzó ò
2 pl	mì			dzó	mìe-dzó ò
3 pl	{ wó	mé		dzó	{ wó-mé-dzó ò }
		mé	wó }		{ mé-wó-dzó ò }

'I didn't leave', etc.

Our base rules (see PS rule 2) generate the formative NEG directly after the subject NP, accounting directly for the almost invariant surface ordering of these two constituents. The alternate form of the third person plural string, however, suggests the need for a permutation rule allowing the pronoun /wó/ to occur optionally to the right of NEG. Since we need this rule anyway, we may generalize it to the second and third person singular forms, since in this way we can account for the absence of the pronouns in negative surface strings. This will give us:

9) PRONOUN PERMUTATION

$$\left\{ \begin{array}{c} e \\ wó \end{array} \right\} \text{ mé} \longrightarrow \text{ mé} \left\{ \begin{array}{c} e \\ wó \end{array} \right\}$$

Since the grammar has a rule of Vowel Degemination (Chapter 1.6), we need only add a suppletion rule lowering the tone of the negative formative /mé/ when preceding the second person singular subject pronoun /è/, to have regular derivations. Thus we add:

$$\text{mé} \rightarrow \text{mè} / \text{ — è}$$

and have derivations such as the following:¹³

è mé dzó ò	é mé dzó ò	wó mé dzó ò	
mé è dzó ò	mé é dzó ò	mé wó dzó ò	Pronoun Perm.
mè è dzó ò	"	"	Suppletion
mè ø dzó ò	mé ø dzó ò	"	Degemination
<u>mè-dzó ò</u>	<u>mé-dzó ò</u>	<u>mé-wó-dzó ò</u>	(Tone rules)

It remains to account for the absence of the negative formative in the first and second person plural forms. This we do by adding the following rule:

10) PARTICLE DELETION

$$\text{mé} \rightarrow \emptyset / \text{ mi —}$$

We do not indicate the tone of the pronoun, thus the rule will apply to both forms.

- ii) Genitive Pronoun Permutation. We have already mentioned a rule (p. 103) which, under certain circumstances, permutes a first or second person singular pronoun with the first element to its right:

(a) when object of the verb in an AVP:

dyì-è-gé	'going to look for me'
tà-wò-gé	'going to draw you'

(b) when preceding a kinship noun of which it is the possessive (genitive) modifier:

fofó-nyè	'my father'
noví-wò	'your brother'
dyl-nyè-lá	'my parent' ('parent': dyl-lá)
dà-nyé-gǎ	'my mother's elder sister' ('mother's elder sister': dàá-gǎ)

(c) when preceding a postpositional noun:

nútyí-nyè	'upon me'
gbò-wò	'with, near you'
yo-nyè-mè	'(on) my trail' (yòó-mè: a compound postposition meaning 'area behind a moving person or thing')

This rule does not apply to gerundive nominals:

nye yó-yó 'calling me'

Observing, then, that the category of the item with which the pronoun permutes appears in all cases to be either a noun or a verb, we may state the rule in the following way:

11) GENITIVE PRONOUN PERMUTATION

$$\left[\begin{array}{c} \{ \text{nyè} \} \\ \{ \text{wò} \} \end{array} \right]_{\text{NP}} \left\{ \begin{array}{cc} \text{N} & \text{X} \\ \text{V} & \text{Af} \end{array} \right\} \left[\right]_{\text{NP}}$$

1 2 3 --> 2 1 3

For case (a) of this rule, where we select the string 'N X' as the structural description, this is a minor rule, applying only to kinship nouns and postpositions, which will be redundantly assigned the rule feature /+GPP/ in the lexicon. For the case 'V Af' it is an ungoverned rule, as it applies without exception.

8. An order constraint. To conclude this review of pronouns, we shall look at a constraint upon the ordering of pronoun objects in surface structure. It may be stated as follows:

12) PRONOUN OBJECT CONSTRAINT

An object pronoun cannot be followed immediately in surface structures by a second object (whether a noun or a pronoun).

This may be illustrated by the following examples with the ditransitive verb /fíá/ 'show':¹⁴

- | | |
|------------------------|--------------------------------|
| kofí fíá ágbàlè à kòkú | 'Kofi showed the book to Koku' |
| kofí fíá ágbàlè à-è | 'Kofi showed the book to him' |
| *kofí fíá-è kòkú | 'Kofi showed it to Koku' |
| *kofí fíá-è-è | 'Kofi showed it to him' |

The prohibited strings can only be expressed by the synonymous periphrastic construction with /tsó/ 'take':

- | | |
|---------------------|--------------------------|
| kofí tsó-e fíá kòkú | 'Kofi showed it to Koku' |
| kofí tsó-e fíá-è | 'Kofi showed it to him' |

Similarly we find:

fíá m_ó á ò

'Show the way to me'

ts_ó-e fíá ò

'Show it to me'

but not:

*fíá-è-ò

('Show it to me')

That this constraint is most likely a surface structure constraint of the sort described by Perlmutter (1971), rather than a constraint on the occurrence of pronouns in deep structure or on pronominalization, is suggested by the existence of grammatical sentences containing two object pronouns which are not contiguous:

kofí é ná-gé ò

'Kofi is going to give it to me'

THE AUXILIARY SYSTEM: MOOD

In this chapter we investigate two forms that grammarians have traditionally dealt with under the heading of 'mood': the imperative and the subjunctive.

1. Cooccurrence restrictions in the base. One of the more difficult problems in transformational grammar is that of handling cooccurrence restrictions among elements generated in the base. In earlier formulations context-sensitive rules were thought to form part of the base; more recently, it has been proposed (Chomsky, to appear b) that phrase-structure grammars have only context-free rules but will contain a number of base conditions. In general, these would seem to account for the same sort of restrictions as context-sensitive rules but have greater power. However, if they prove to be subject to more general conditions (formal or substantive) limiting their occurrence in a grammar, they would allow us to restrict the class of possible grammars more narrowly than would the unrestricted use of context-sensitive rules, and would in this way justify a claim that they form a part of grammatical theory.

In our discussion of the auxiliary verbs (Chapter 2.4), we found another means of stating cooccurrence restrictions, when these are observed to hold between lexical items, on the one hand, and grammatical items or categories on the other. This was by entering the element(s) with which a particular item (in this case, the auxiliary verb) may cooccur directly in its syntactic subcategorization feature. In other cases, where restrictions hold among grammatical elements alone, we found that positive restrictions - where two or more elements must cooccur in a given structure - could be characterized by generating the elements together by means of a single PS rule, then accounting for their discontinuous surface patterning by a permutation rule (the discontinuous aspect forms).

There is yet another means of accounting directly for negative cooccurrence restrictions, a fact which shows that even a highly constricted model, one not containing context-sensitive base rules or base conditions, has a wide range of devices at its disposal for handling cooccurrence problems. This, as we saw in our discussion of the mutually exclusive (non-cooccurring) habitual and future formatives, consists of generating the incompatible elements as either/or choices in a single paradigm of forms, where one element is eventually moved by a permutation rule. In this chapter we shall be essentially concerned with this approach.

The notation provided for handling mutually exclusive base elements is the set of paired braces. Since all elements occurring within braces occur at the same point in the strings they enter relative to other elements, this notation has the property of predicting that either/or choices in the base will tend to fall into 'slots' and form paradigms in surface strings. Apart from this, it allows us to express the fact that formally heterogenous elements may have the same syntactic function in a sentence, and defines the notion 'functional class' by the enumeration of its members.

Insofar as mutually exclusive elements do not fall into the same functional slots, the grammar must provide movement rules to account for their final position in sequence. In this way, the device of the paired braces provides a built-in evaluation metric: a grammar is more complex to the extent that such movement rules are present. This seems intuitively to be one satisfactory way of distinguishing degrees of 'markedness' in syntax.¹

In this chapter we look at two elements in the grammar of Ewe that grammarians often deal with under the heading of 'mood': the imperative and the subjunctive. (the 'indicative' is often regarded as a form unmarked for these categories).² We shall examine in particular the range of their cooccurrence with the tense and aspect formatives and other elements generated in the base.

2. The imperative. The imperative is formed in the second person singular by the verb stem alone. All sentence-initial non-high tones are realized as low until a high tone is reached (Smith 1968.294):

gblò-è kábá 'Say it quickly'

The verb stem may be preceded by members of P and A, but not T:

hé-de nyúíé 'Arrive well'

nò yì-má má-vá 'Be going, I'll come (later)'

In the plural, second person imperatives are formed by prefixing the subject pronoun /mì/ to the stem (or to P or A, if present). There is no tone-lowering:

mi-gblo-e kábá 'Say it quickly'

mi-hé-de nyúíé 'Arrive well'

mi-no yì-má má-vá 'Be going, I'll come'

Exceptionally, /vá/ 'come' has low tone in the second person singular imperative, but any following non-high tones are realized as mid:

và nò anyí 'Come sit down'

There are other forms which we also wish to consider imperatives. Like the second person plural form, an imperative may be formed in the first person plural by prefixing the subject pronoun /mí/:

mí-gblo-e kábá 'Let's say it quickly'

This form is formally parallel to the second person plural form. Both contrast with indicative expressions in that in the latter, the 'intrusive' /e/ is always inserted after the pronoun:

míe-gblo-e kábá 'We said it quickly'

míe-gblo-e kábá 'You said it quickly'

Thus, we may state that the insertion of /e/ does not take place after subject pronouns in imperative sentences.

A third person imperative is formed by the particle /ně/, which immediately precedes the verb (although it may optionally precede the third person plural pronoun /wó/ as well):

ně-vá 'He must come'

{ wó-ně-vá }
{ ně-wó-vá } 'They must come'

kofí ně-vá 'Kofi must come'

ḡèví á wó ně-vá 'The children must come'

These forms are not formally (or semantically) parallel to the imperatives previously considered, and it is far from apparent that we are dealing with the same formal paradigm. We shall support the claim that these are true imperatives with two arguments: (a) it will be shown that

/ně/ appears before a second person pronoun in certain embedded structures, and (b) we shall show that the imperative formative /ně/ has the alternate form /gà/ in negative sentences, and that this form appears with all persons.

We see from the following examples that the formative /ně/ occurs in subordinate clauses as well as in main clauses:³

me-dyí bé kofí ně-vá 'I want Kofi to come'
 me-gblo ná-ě bé ně-vá 'I told him to come'
 wó-ǒ kofí bé ně-ple nú 'They sent Kofi to buy something'

In such cases, /ně/ is semantically contrastive with the subjunctive (see below) and indicates a stronger degree of volition on the part of the subject of the higher verb. The first and second person singular forms have no /ně/, but use the subjunctive:

ě-gblo ná wó bé nà-vá 'He told you to come'

In the plural, however, either the subjunctive or the imperative form may be used:

{ 'ě-gblo ná mí bé mí-vá }
 { 'ě-gblo ná mí bé mí-á-vá } 'He told us to come'

In subordinate clauses, then, we find examples such as the above where the imperative first and second person form and the /ně/ third person form, while still maintaining a formal contrast, are semantically parallel.

Now let us observe what happens when the self-reporting pronoun /yè/ occurs in a subordinate imperative clause. We find it followed by /ně/:

gblò bé enye me-gblò ná yé bé ye-ńé-vá

'Say that I told you that you must come'

In this example, /yè/ (in both occurrences) must have the features of a second-person pronoun, as it agrees in reference with the (underlying) second-person subject of the uppermost verb /gblò/ 'say'. This is true whether we consider the rule accounting for /yè/ as a feature-changing rule, like Pronominalization, or as an interpretive rule. This shows, then, that a single imperative formative /ńé/ occurs both in third person sentences with injunctive meaning and in subordinate-clause imperative sentences with second person subjects.

Now let us turn to the negative imperative forms. While Westermann called these forms the 'prohibitive', he added that the prohibitive is 'an imperative negative' (Westermann 1930.77). In these forms, /gà/ takes the place of /ńé/ and is extended to all persons:

é-gblò	bé	má-gá-vá	ò	'He told me not to come'
"		mè-gà-vá	ò	'He told you not to come'
"		mé-ga-vá	ò	'He told him not to come'
"		mí-ga-vá	ò	'He told us not to come'
"		mì-gà-vá	ò	'He told you (pl.) not to come'
"		{ wó-mé-ga-vá	ò	'He told them not to come'
"		{ mé-wó-ga-vá	ò	

We also find it with noun subjects:

é-gblò	bé	kofí	mé-ga-vá	ò	'He told Kofi not to come'	
"		dèví	á wó	mé-ga-vá	ò	'He told the children not to come'

All these forms but for the first person singular may occur in independent clauses as well, paralleling the affirmative forms in usage and meaning:

mè-gà-vá ò 'Don't come'

and so forth. We are clearly dealing, then, with the imperative. Since /gà/ and /nẽ/ are in complementary distribution, the most economical description would be one which sets up a unique underlying form for affirmative and negative deep structures. Let us suppose there is an imperative formative, directly generated in the base, which is realized as /gà/ in negative sentences and /nẽ/ in affirmative sentences, the latter being deleted in certain circumstances.⁴

We shall represent the imperative formative as /nẽ/. It is mutually exclusive with members of T, and therefore constitutes a paradigm with it:

$$\left\{ \begin{array}{c} T \\ n\tilde{e} \end{array} \right\}$$

In section 4 we shall look at the transformational rules which account for the imperative alternants and their occurrence.

3. The subjunctive. The subjunctive was ignored in early descriptions of Ewe by Westermann and others, and considerable confusion resulted from the consistent failure to distinguish it from future tense.⁵ It was first described, for Gẽ, by Schroeder (1936.50-51), and has since been described for Standard Ewe by Ansre (1966b).

The subjunctive is the form characteristic of subordinate clauses expressing necessity, purpose, volition, etc. In Anlo, it is nearly always distinct in form from the future tense. It is expressed by the formative /ná/ after noun subjects and /á/ after pronoun subjects, acquiring low tone after a low-tone pronoun. It occurs after the idiomatic expression /é-lè bé.../ 'it is necessary that...' which we shall take as a diagnostic environment:

é-le bé má-vá	(mé-á-vá)	'I must come'	
"	nà-vá	(nè-à-vá)	'You must come'
"	wò-à-vá	'He must come'	
"	mí-á-vá	'We must come'	
"	mì-à-vá	'You (pl.) must come'	
"	wó-á-vá	'They must come'	
"	kofí ná-vá	'Kofi must come'	
"	dèví á wó ná-vá	'The children must come'	

In the case of noun subjects, there is little chance of confusing the subjunctive /ná/ with the future /áà/. With singular pronoun subjects, the contrast between the two forms rests primarily on the use of different pronoun alternants for the subjunctive (see Chapter 4.4):

é-bé mà-vá	(mè-à-vá)	'He said I would come'
é-bé má-vá	(mé-á-vá)	'He told me to come'
é-bé à-vá	(è-à-vá)	'He said you would come'
é-bé nà-vá	(nè-à-vá)	'He told you to come'
é-bé á-a-vá	(é-a-vá)	'He said she would come'
é-bé wò-à-vá		'He told her to come'

With plural pronoun subjects, the contrast is maintained by tone alone:

ě-bé mí-a-vá	'He said we would come'
ě-bé mí-á-vá	'He told us to come'
ě-bé wó-a-vá	'He said they would come'
ě-bé wó-á-vá	'He told them to come'

Contrast is neutralized in the case of the second person plural form alone, except for those speakers who observe the future tone-raising rule (Chapter 1.6), where it is maintained with underlying non-high tone verbs:

ě-bé m̀-á-yì	'He said you (pl.) would go'
ě-bé m̀-à-yì	'He told you (pl.) to go'

The fact that /ná/ and /á/ are alternants corresponding to a single deep-structure formative is further suggested by pairs of sentences like the following, related by Extraction (Chapter 4.2):

wó-dyí bé kofí ná-vá	'They want Kofi to come'
kofí a, wó-dyí bé wò-à-vá	'Kofi, they want him to come'

We shall assume that the basic form of the subjunctive is /ná/, and that it is reduced to /á/ after pronoun subjects.

cf future = a ~ a

The principal uses of the subjunctive include the following:

i) after verbs of wishing, ordering, urging, etc.:

me-dyí bé má-vá	'I want to come'
me-ná wò-à-vá	'I had him come'
wó-dó-è dyì-nyé bé má-vá	'They urged me to come'
<u>set on</u>	
urge	

ii) in purpose and 'potential' clauses:

kofí yì àpé me bé yè-à-ḡu nú

'Kofi went home in order to eat'

nánéké mélé àsí-nye má-dzrá ò
nothing sell

'I have nothing to sell'

iii) after the conjunctions/háfí, káká, kásíá/ when these introduce sentence-initial subordinate clauses:

káká má-ḡó kò à...

'As soon as I arrived...'

háfí esrõ ḡe-ḡe ná-yi dyí a...

'Before marriage can take place...'

hafi ne Tḡbui Sri nava tro megbe la...

'Before Father Sri finally passed away...' (TA)

iv) in independent clauses, where its distribution is irregular:

má-vá

'I want to come'

nà-vá

'You should come' (polite request or invitation)

* wò-à-vá

* mí-á-vá

mì-à-vá

'You (pl.) should come'

* wó-á-vá

kofí ná-vá

'Kofi should come'

ḡèví á wó ná-vá

'The children should come'

These gaps in distribution cannot be motivated on semantic or syntactic grounds - they seem to be essentially random. We could eliminate the ungrammatical examples from the set of surface strings generated by our grammar by adding a base condition of the sort mentioned at the outset of this chapter. A more satisfying solution, however, might be to claim that the subjunctive never appears in independent deep-structure clauses; instead, in structures underlying the independent sentences given above, there would be a higher clause /mè-dyí/ 'I want':

me-dyí bé má-vá	'I want to come'
me-dyí bé nà-vá	'I want you to come'

Sentences such as these are, of course, grammatical and seem to be largely synonymous with:

má-vá	'I want to come'
nà-vá	'You should come'

(in which the English glosses may only be taken as a rough guide). We would then add a rule deleting the sequence /me-dyí bé/ in the appropriate circumstances, resulting in the independent clauses of the last page. While this approach seems attractive, I know of no independent evidence to support it.⁶

- v) as a substitute for the imperative in subsequent members of a serial command:

yì nà-vá mí-dzó	'Go and come (back), so that we may leave (together)'
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tú bò nà-dé gà nè ná ò	'Shut and lock the door shut door put metal in for me'
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Tense is neutralized with the subjunctive, as it is with the imperative, cf.:

**ě*-le bé kofí ná-a-vá

**é*-le bé kofí ná-vá-ná

We can therefore represent the tense/mood system by the following paradigm:

$$\left\{ \begin{array}{c} T \\ n\acute{e} \\ n\acute{a} \end{array} \right\}$$

4. Rules. We shall now review the rules that will be necessary to account for the forms we have been discussing. We look first at the imperative.⁷

In several respects, we find that the formative /*ně*/ behaves much like the negative formative /*mé*/, suggesting that in Anlo the syntactic rules which operate on /*mé*/ have been generalized to /*ně*/ as well, perhaps as a result of their phonological similarity. We observe first of all that /*ně*/ is deleted after /*mí*/ and /*mì*/, the first and second person plural pronouns. This is, of course, the case with /*mé*/ as well (Chapter 4.7). The two rules can be collapsed into a single statement:

1) PARTICLE DELETION (revised)

$$\left\{ \begin{array}{c} m\acute{e} \\ n\acute{e} \end{array} \right\} \longrightarrow \emptyset / mi \text{ ---}$$

Secondly, we see that both /*ně*/ and /*mé*/ have the same irregular behaviour when selected with a third person pronoun subject:

	mé	ně
sing.	*ě-mě-vá ò	*ě-ně-vá
	mě-vá ò	ně-vá
plur.	wǒ-mě-vá ò	wǒ-ně-vá
	mé-wǒ-vá ò	ně-wǒ-vá

In the case of both forms, the third person singular pronoun may not come first in a sequence, i.e. the otherwise normal order is prohibited. Furthermore, there are two possible orderings of the third person plural pronoun with the grammatical formative; this variation is observed nowhere else.⁸ Once again, then, we are in a position to generalize a rule which was introduced to handle the negative form only (Chapter 4.7):

2) PRONOUN PERMUTATION (revised)

$$\begin{array}{ccc}
 \left[\begin{array}{c} \{ e \} \\ \{ wó \} \end{array} \right] & \left\{ \begin{array}{c} mé \\ ně \end{array} \right\} & \\
 \text{PRO} & \text{PRO} & \\
 1 & 2 & \longrightarrow 2 + 1
 \end{array}$$

The single cross here indicates not merely adjunction but the formative boundary, and states that no word boundaries # occur between items 1 and 2 of the structural change. This is necessary in order to account for the fact that Vowel Degemination, applying to strings such as mé+é, is obligatory. We must add the further condition that the rule is optional if item 1 is /wó/; perhaps this statement could be reformulated in terms of an optional rule feature /+PP/ assigned to the pronoun /wóáwó/ in the lexicon.

In order to consider the derivation of affirmative (non-negative) imperatives, we must consider a further rule,

the one accounting for the absence of the subject and the imperative formative in second person singular imperatives:

gblò-è kábá 'Say it quickly'

Since it seems reasonable to assume that it is the presence of the imperative formative in underlying structures that conditions the rule of imperative tone-lowering, as well as the rule lowering the tone of /vá/ 'come' (see section 2), we shall suppose that the imperative deletion rule is a morphological rule, ordered after the last two. In fact, since Pronoun Permutation (2) will act upon second person singular imperative strings, creating a single phonological word as its output, we see that imperative deletion has the typological form of a morphological rule in any case. No environment need be stated, since no other formative sequence will be identical:

3) IMPERATIVE DELETION

né+è ---> ∅

We now have derivations like the following:

4) e né gblò-e kábá

e né gblò-è kábá Imperative Tone Lowering

né+e gblò-è kábá Pronoun Permutation

∅ gblò-è kábá Imperative Deletion

gblò-è kábá 'Say it quickly'

5) e né vā nō anyí

" "

Imperative Tone Lowering: undefined

e né vā nō anyí Lowering of /vá/

né+e vā nō anyí Pronoun Permutation

∅ vā nō anyí Imperative Deletion

vā nō anyí 'Come sit down'

(In these derivations, for convenience, underlying non-high tone is unmarked, and derived phonetic low tone is represented /ʔ). The system of rules we have developed applies uniformly to first and third person forms as well, and thus we have :

6)	ě ně vá	mǐ ně vá	
	ně+ě vá	" "	Pronoun Permutation
	" "	mǐ ∅ vá	Particle Deletion
	<u>ně ∅ vá</u>	<u>" "</u>	Degemination
	<u>ně-vá</u>	<u>mǐ-vá</u>	'He must come, let's come'

Because of the fact that independently-motivated rules for two unrelated syntactic categories (the negative and imperative formatives) can be collapsed in this way, we see that the relatively 'abstract' analysis of the imperative that we adopted entails no further complication of the grammar. The grammar already contains a pair of rules permuting and deleting the negative formative in exactly the same environments where permutation and deletion are required for the postulated imperative formative. The forms we set up which were not directly attested, or which did not occur in surface structures in the same place in sequence that we supposed them to have in underlying strings, are automatically accounted for once we generalize the rules mentioning the negative formative /ně/ to the imperative formative /ně̃/.

In fact, we see that the 'abstract' analysis of the imperative has permitted an overall simplification of the grammar, in two respects. First of all, if we had decided to generate /ně̃/ only in those deep structures where a surface reflex was attested, that is, in strings with third person subjects, we would have had to introduce either a context-sensitive PS rule or a base condi-

tion, as mentioned in section 1, in order to rule out the undesired first and second person structures or mark them as ungrammatical. Moreover, the statement of the deletion of the second person singular subject in imperatives, which would have been necessary in any case, would either have required reference to an otherwise unmotivated abstract formative (such as 'IMP'), presumably to be generated in the base, or else - in an interpretivist account - would have required the introduction of an otherwise unnecessary rule of interpretation accounting for the change in meaning resulting from the free operation of a subject-deletion rule. Both these complications prove unnecessary as a result of the setting up of 'abstract' forms which form a perfectly regular paradigm in deep-structure representations. Secondly, the generalization of the structural description of Particle Deletion and Pronoun Permutation to the imperative formative, far from involving a complication of these rules, permits a slight simplification of them. We recall that all lexical and grammatical formatives are represented (in full statements) as phonological matrices of distinctive features. Thus, for instance, the negative formative /mé/ is distinguished from all other non-homophones by the following matrix (we adapt the features of Smith 1968):

m	é
-vocalic	+vocalic
+consonantal	-consonantal
-coronal	-high
+anterior	-low
+nasal	-back
	+high tone

In order to generalize this representation to the form /nẽ/, all we need do is omit mention of the feature

/Coronal/. This is because /nẽ/ differs from /mé/ only in its specification of that feature (/n/ is /+Coronal/), as well as in the presence of the feature /+Raised Tone/ on its vowel. As a result, any rule with the above feature matrix minus the feature /Coronal/ in its structural description will apply both to /mé/ and to /nẽ/. The generalization of a rule mentioning the negative formative /mé/ to one mentioning /nẽ/ as well, therefore, results in a simplification, rather than a complication, of the rule.

To summarize, we have found strong evidence for the setting up of a fairly 'abstract' imperative formative in two independent areas: first, in the purely empirical arguments we gave for this analysis in section 2, and secondly in the fact that a grammar containing this analysis is simpler than one which does not. Here, then, Ewe presents us with a good argument in favor of the existence of underlying grammatical formatives which may 'surface' only in restricted circumstances.

We have yet to consider the negative form of the imperative. We have seen that /nẽ/ is uniformly replaced by /gà/ in negative sentences, and so we add the rule:⁹

7) né ---> gà / mé —

The first person singular form, alone, is irregular; instead of the expected */nyè-mé-ga-vá ð/, we found /mé-á-gá-vá ð/, phonetically [mágává ð]. Here, the subjunctive marker /á/ has replaced the negative marker /mé/, as a result of which the subject pronoun has taken its pre-subjunctive alternant (see rule p. 143) and the tone of underlying /gà/ has become high (by the rule given on p. 52). To account for this form, therefore, we add the rule:

8) mé --- ná / nyè — gà

This follows rule (7) introducing /gà/, and, we must suppose, precedes the pronoun alternant rules of Chapter 4. Finally, we state the rule assigning the post-pronoun alternant of the subjunctive formative (see last section for discussion):¹⁰

9) ná --- á / PRO —

This now allows us to derive the first person singular form:

10) nyè mé ně vá ò

nyè mé gà vá ò (7)

nyè ná gà vá ò (8)

mè ná gà vá ò Paradigmatic Reduction

mè á gà vá ò (9)

mé á gà vá ò mè --- mé (p. 143)

mé á gá vá ò gà --- gá (p. 52)

má á gá vá ò Assimilation

má ø gá vá ò Degemination

 má-gá-vá ò '...that I should not come'

In this long derivation, the only rule which we have not motivated independently is the one we are illustrating, the rule accounting for the irregularity of the first person singular form (8). This rule sets off a complicated chain reaction of events. Without (8), Paradigmatic Reduction would have been undefined, due to the presence of the negative formative (note 5 of Chapter 4). But with the reduction of /nyè/ to /mè/ defined, the tone-raising rule and consequently Assimilation and Degemination are defined. Rule (8) also triggers (9) and the rule raising the tone of /gà/. Thus, once we have rule (8) in the grammar, all the remaining steps in the derivation follow as an auto-

matic consequence. This is a particularly striking example of the mechanical operation of ordered rules upon uniform underlying representations.

5. A Note on Gerundives. Often included in discussions of 'mood' are infinitive phenomena such as the gerundive nominals formed in Ewe by reduplication. Superficially, it might seem appropriate to include them here. They are mutually exclusive with tense and with the imperative and subjunctive formatives:

- kofí pé dzò-dzó 'Kofi's leaving'
 *kofí pé à-dzò-dzó
 *kofí pé dzò-dzó-ná
 *kofí pé n'è-dzò-dzó
 *kofí pé ná-dzò-dzó

Therefore, one might consider that they all form a single paradigm of elements. Such a view would be misleading, however. Observe, for instance, that while the other elements previously discussed are semantically contrastive:

<u>tense</u>	S	
∅	me-bé kofí vá	'I said Kofi came'
fut	me-bé kofí áa-vá	'I said Kofi would come'
hab	me-bé kofí vá-ná	'I said Kofi comes'
n'è	me-bé kofí n'è-vá	'I said Kofi must come'
ná	me-bé kofí ná-vá	'I said Kofi should come'

gerundive complements never contrast with any of these. Rather, we often find them as optional variants of

tenseless or subjunctive clauses, e.g.:

$\left\{ \begin{array}{l} \text{me-nlò bé bé é-vá} \\ \text{me-nlò yé wó va-vá bé} \end{array} \right\} \begin{array}{l} \text{'I forgot that he came'} \\ \text{(nlò...bé 'forget')} \end{array}$

This evidence is consistent with our finding that reduplication is not an element of the base (except in certain lexical representations) but is introduced transformationally, by Restructuring.

Our previous treatment of reduplicative gerunds gives an independent explanation for the mutual exclusivity of the gerundives and the tense, subjunctive and imperative elements. As we formulated Restructuring, it was defined on the following class of structures:

$$\left[\begin{array}{c} \text{V} \\ \text{N} \end{array} \left\{ \begin{array}{c} \text{NP} \\ \emptyset \end{array} \right\} \begin{array}{c} \text{X} \\ \text{N} \end{array} \right]$$

No nouns not having the internal description stated above can undergo the rule. No provision is made for auxiliary elements; thus, no string of the form

$$\text{AUX V} \left\{ \begin{array}{c} \text{NP} \\ \emptyset \end{array} \right\} \text{X}$$

can undergo the rule, and the unattested structures will not be generated.

It seems, then, that the gerundives have a different status in the grammar than the auxiliary elements we have been discussing. We shall return to some final considerations on the derivation of gerundive complements in the next chapter, when we consider the 'qualifying verbs'.

6. Summary. We have seen that we can set up a paradigm of mutually exclusive elements which define the range of 'mood' in Ewe:

$$\left\{ \begin{array}{l} T \\ n\acute{e} \\ n\acute{a} \end{array} \right\}$$

where T may be interpreted as defining the 'indicative', /n \acute{e} / represents the imperative, and /n \acute{a} / represents the subjunctive. In semantic representation, these three categories will presumably be associated with different types of 'performative' predicates, roughly representable as statement, command, and volition. These distinctions play an important role in verbal subcategorization (see Chapter 6.9).

This paradigm has been constituted solely on the basis of semantic contrast and the relation of mutual exclusion holding among its members; no considerations of surface patterning were taken into account in forming it. But as we may see from our examples, this paradigm, if generated by the base rules in pre-verbal position, accounts very well for the surface patterning of these forms. There is no a priori reason why this should be so, except that it seems to be a property of human languages that mutually exclusive elements ^{tend to} occur in the same 'slots'. It is this observation about language structure that is formalized in generative grammar by the paired brace notation.

Since the imperative and subjunctive formatives behave like the members of T not only in terms of their position in strings, but in most other respects as well (e.g. there are no known transformational rules which

must refer to 'tense' formatives exclusive of the imperative and subjunctive formatives), there is no reason not to add them to the list of forms generated by T. We shall expand PS rule 8, therefore, to include these new members:

PS rule 8': T \rightarrow $\left\{ \begin{array}{l} \acute{a}\grave{a} \\ \acute{n}\acute{a}_1 \\ \acute{n}\acute{a}_2 \\ \acute{n}\acute{a}_3 \\ \acute{n}\acute{e} \end{array} \right\}$

where / $\acute{n}\acute{a}_1$ / is the habitual formative, / $\acute{n}\acute{a}_2$ / is the progressive formative, and / $\acute{n}\acute{a}_3$ / is the subjunctive formative.

VERBAL SUBCATEGORIZATION

Up to this point we have been investigating the verb principally from the point of view of the categorial rules of the base and the rules of transformation. We therefore have some idea of what base structures are in Ewe and how these structures are modified by some of the more important syntactic and morphological rules. In this chapter we turn to the study of verbal subcategorization and examine the way in which verbs are classified in terms of the range of structures they may enter.

1. The syntactic category VP. We have so far assumed, with no justification, that the grammar of Ewe contains a category VP (verb phrase) generated by the PS rules of the base. It is not obvious that such a node is necessary, at least in deep structures. Alternatively, we could have proposed a rewriting rule

$$\text{PRED} \rightarrow \text{AUX V (NP (NP)) ADV}$$

in which VP does not appear, achieving a certain simplification.

In arriving at a decision like this, we must ask ourselves what sort of arguments are valid in setting up a certain base category. In the case of the category NP, for instance, we find that there is a set of syntactic forms:

$$(\text{NP} \left\{ \begin{array}{l} \text{pé} \\ \text{wó} \end{array} \right\}) \text{ N (DET) (wó)}$$

S^o

PRO

NP EMP

which are equivalent in terms of distribution, all being susceptible to occurrence in the frames — (NEG) V, V —]_S, and which are partially equivalent in terms of certain rules of syntax (Pronominalization, Topicalization, Restructuring, etc.). The creation of a node NP is a way of expressing the notion 'syntactic equivalence class'.

Such an argument is not available to us in the case of VP, where (at least as far as the forms under study

here are concerned) no such class of heterogenous strings exists. Furthermore, the elements we have grouped under 'VP' occur in only one position in deep structure strings, and do not appear to undergo movement rules.

The ultimate validation of a set of base rules must take into account as a primary factor the economy with which surface strings may be derived from them, the observed sentences of the language being the goal of the descriptive effort. We have already found it necessary, in order to achieve greatest economy in the statement of several rules (Paradigmatic Reduction (objects), Habitual Formative Reduction, and eventually Vowel Closing, see p. 11) to set up the verb with its objects as a single constituent. Although such a constituent could be created by a transformational rule - using a more powerful type of rule than we have in general allowed here - there seems to be no strong argument against generating it directly in the base, particularly if we choose to confine syntactically unmotivated transformations to the semantic component (see Introduction, pp. 8-10). We have seen that if these rules did not distinguish in some way between NPs that were objects and NPs that were not (e.g., NPs functioning as adverbial adjuncts or subjects of embedded sentences), there would be no simple way of prohibiting the derivation of certain ungrammatical strings.

We recall that the original motive for establishing constituent divisions within Immediate Constituent grammars was to express the fact that some parts of a sentence are more closely interconnected than others; thus, to

take an example from Ewe, in the sentence

àtyí á mù 'The tree fell'

the article /á/ is clearly more closely related to the noun to its left than to the verb to its right. In the same way, the noun phrase functioning as the object of a verb is more closely related, grammatically, to the main verb than to the elements in any adverbial phrase to its right. The purpose of setting up verb-object strings as single constituents, then, was to give formal expression to the traditional distinction between the 'nuclear' elements of a sentence and the 'incidental' or 'peripheral' adverbial elements.

This brings us to a second important role of the category VP in a generative grammar. To a large extent, we find that verbs are subcategorized in terms of whether or not they accept objects, how many they may accept and what their nature is; in general, the 'peripheral' constituents of a sentence are not relevant for subcategorization. While this generalization is not universally valid, exceptions to it seem to fall into general classes and can perhaps be given separate, general statements (thus: 'stative verbs are not selected with manner adverbials'). Again, we find that the great majority of verbal idioms involve members of what we have set up as the constituent VP (though again, we can find exceptions). Thus, it seems that the notion 'object of the verb' is an essential one for any theory of language, and the category VP is an already-existing part of our theory which allows us to define this notion.

2. Prepositional verbs or 'verbids'. Our PS rules, as so far developed, are insufficient to account for all aspects of verbal subcategorization. To begin with, let us observe the following sentences:

me-gé ɖé xò mè 'I entered the house'
 enter

me-dze le koffi nútyí 'I avoided Kofi'
 avoid

Here, the main verbs are followed by members of the syntactic class of prepositional verbs or 'verbids'. These forms are largely homophonous with main verbs. In Anlo, we find the following forms: /lè, ɖé, tsó, ná, tó, kplé, kpé ɖé...nú(tyí)/. This list is identical to that given for Standard Ewe by Ansre (1966a, 1966b) except for the addition of the complex form /kpé ɖé...nú(tyí)/ 'together with' which appears to meet the criteria established by Ansre.¹

The verbids are related to main verbs not only in form but in meaning:

/lè/: 'to be in, at' (main verb)
 'in, at' (verbid)

/tsó/: 'to come from, be from' (main verb)
 'from' (verbid)

/ná/: 'to give' (main verb)
 'for, to' (verbid)

/tó/: 'to pass' (main verb)
 'through' (verbid)

/ɖó/: 'to put forward, send' (main verb)
 /to, toward' (verbid)

/ɖé/ has the alternant /ɖó/ when not followed

directly by an object:

kofí yi ɖé kětá 'Kofi went to Keta'

kětá ɛ kofí yi ɖó 'It's Keta that Kofi went to'

/kpé ɖé...nú(tyí)/: 'to accompany' (main verb)

'together with' (verbid)

The form /kplé/ has no main verb homophone, though it can be related (on the basis of comparative evidence) to /kpé ɖé/, which is itself a verb-verbid sequence. /kplé/ is the NP linker:

kofí kplé àblá 'Kofi and Abla'

and has other uses as well:

é-ɓo kofí kplé àtyí 'He struck Kofi with a stick'
hit

é-ɓo nu kplé kofí 'He spoke with Kofi'

The verbid status of the complex form /kpé ɖé...nú(tyí)/ can be shown by contrastive examples such as the following:

kofí kpé-ná ɖé àblá nú de-a sukúù

'Kofi accompanies Abla to school'

kofí de-a sukúù kpé ɖé àblá nú

'Kofi attends school as well as Abla'

In the first of these, /kpé/ as a main verb takes the habitual formative /ná/. In the second, /kpé/ is a verbid and thus does not take the habitual, as it would have if it were a main verb (cf. /dè/ in the first example).

As the last examples suggest, the verbids do not in general accept auxiliary markers, nor may they be negated (see Ansre, *ibid.*). Thus, while these forms are similar to main verbs both morphologically and semantically, and share their property of imposing object-reduction on following pronouns, they are 'defective' in regard to tense, aspect and polarity.

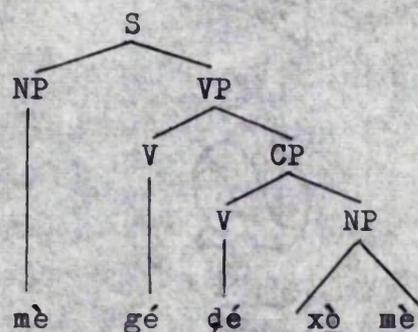
To account for these forms, we shall modify the PS rule which introduces NP complements into structures. Thus, PS rule 4 of Chapter 2 will become:

PS rule 4': $VP \rightarrow V (CP (CP))$

The rule now states that a verb phrase consists of a verb followed by one or two optional complements. The category 'complement' is defined by the following rule:

PS rule 12: $CP \rightarrow (V) NP$

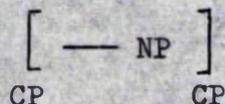
which states that a complement consists of a noun phrase optionally preceded by a verb. These two rules allow the generation of V in two positions in structures. Verbs generated by PS rule 4' will be called main verbs, and those generated by the second rule prepositional verbs or verbids. These rules will give us structures such as the following:



'I entered the house'

In this structure, /gé/ 'enter' is the main verb and /dé/ (expressing 'direction toward') is the verbid. It is immediately apparent why /dé/ does not accept negative or auxiliary markers: these items, if present in a structure, will always occur to the left of the main verb.

We shall extend the subcategorization principle that items are subcategorized in terms of their sister-constituents to the case of the verbids. Each verbal entry capable of occurring as a verbid will have, in addition to the features determining the range of structures it may enter as a main verb, the following subcategorization feature allowing it to enter the constituent CP:



It might well be asked whether it is really necessary to create the syntactic category CP. Could not one of the already-existing categories VP or NP serve as well? Let us compare the characteristics of CP with each of these nodes. We find first of all that CP is much more restricted than VP in that CPs may contain only single NPs as objects while VPs may contain two. Thus, the item /ná/ behaves quite differently depending on whether it is a main verb or a verbid: as a main verb meaning 'give', it requires two objects, while as a verbid meaning 'to, for' it may only take one. Secondly, comparing CP and NP, we find that there are not only internal differences (the initial V: this may precede NP objects, but never NP subjects or genitive modifiers), but that their syntactic behaviour is unlike; thus, CP may not be topicalized:

- é-yi dé kětá 'He went to Keta'
 kětá é wò-yi dọ 'It's Keta he went to'
 *dé kětá é wò-yì

It may not be pronominalized by members of the definite pronoun series, and it does not appear to undergo any NP movement rules at all.

3. Postpositional nouns. Another syntactic category that is intimately involved in verbal subcategorization is the postpositional noun. The following examples show that the meaning of verbal expressions may vary unpredictably according to the choice of postpositional noun. One postposition gives the expression a literal or concrete meaning, while the other gives it an abstract meaning:

- ẽ-ku dé kofí nú 'It is hanging from Kofi'
 ẽ-ku dé kofí gbó 'It depends on Kofi'
 /nú/: 'outside, outer surface'
 /gbó/: 'side, vicinity'
 me-dé kofí gbó 'I reached Kofi'
 me-dé kofí nu 'I'm Kofi's equal'
 /nùú/: 'mouth, front edge'
 gàtyí á nú kò 'The spoon is clean'
 enya a m̀è kò 'The matter is clear'
 /m̀è/: 'inside'

In the first two of these examples the postpositional nouns are associated with the object NP, while in the third they are associated with the subject.

Most investigators have pointed out that these forms are, in fact, true nouns.² For a certain subclass of these forms, as Baëta has pointed out, this analysis is obviously correct (Baëta 1962.135-6, 164-5):

- i) these forms may be conjoined by the NP linker /kplé/:

akume kple megbe li na avoa 'A cloth has a front
and a back'

compare:

asi kple afe li nam 'I have hands and feet'

- ii) these forms may occur alone as subjects (example above) and as objects:

etsoo ati po megbe nam 'He hit me in the back
with a stick'

compare:

etsoo ati po mo nam 'He hit me in the face
with a stick'

These examples reflect the fact that many postpositions refer, in their literal meanings, to body parts. Not all postpositions meet these tests. However, other arguments are available which show quite conclusively that postpositions must be characterized as nouns in the grammar:

- iii) postpositions usually occur with genitive modifiers:

nyè àgò, àgò-nyè 'in front of me'

- iv) postpositions behave as nouns with regard to at least two syntactic rules, Genitive Marker Deletion (see below) and Genitive Pronoun Permutation (Chapter 4.7).

- v) postpositions behave as nouns with regard to at least two morphological rules, Paradigmatic Reduction (genitive series) (Chapter 4.4) and Genitive Pronoun Deletion (Chapter 4.7).
- vi) Postpositions behave as nouns with regard to certain phonological rules, of which one will suffice as an example. Anlo and other Western dialects have a rule inserting low tone immediately after an initial voiced obstruent in a noun occurring initially in a NP (see Stahlke, in preparation). If the noun stem has underlying high tone, this results in rising tone at an intermediate level of derivation:

ví	'child' (underlying)
vìf	(derived)

Such rising tones are manifested as low tones in Anlo, though the eventually deleted high tone may have certain effects on following syllables. Thus, compare the following surface forms:

kofí wó ví	'Kofi's child'
vì-ny(é)è	'my child'

Low-tone insertion has been defined on the second of these examples and as a secondary effect, /nyè/ may receive an inserted high tone. Low tone has not been inserted in /ví/ in the first example, as it is not initial in the NP. Now we observe that the same rule(s) apply to postpositional nouns:

kofí dyí	'on Kofi'
dyl-ny(é)è	'on me'

Thus, a wide range of data from both the deep structure and transformational levels show the postpositions to be true nouns.

Greenberg (1963b) has made the interesting observation that, for a wide range of languages surveyed, the relative order of 'postpositions' and the noun phrases associated with them is significantly correlated with the relative order of genitive nouns and governing nouns. Thus, if we are correct in identifying his term 'postposition' with what we here call 'postpositional noun', his implications could be restated as follows:

- a) If a language has the order Genitive Noun/ Governing Noun, then it has the order Noun Phrase/ Postpositional Noun.
- b) If a language has the order Governing Noun/ Genitive Noun, then it has the order Postpositional Noun/ Noun Phrase.

Anlo, as well as most described dialects of Ewe, meet description (a), while languages like Yoruba and Igbo display order pattern (b). Carrell gives the following description of locative constructions in Igbo (Carrell 1970.17):

All place constructions consist of the preposition na, the only preposition in Igbo, an optional place noun, and a Nom(inal). Place-N(oun) is a special class of nouns designating 'place', and includes ímé 'inside', élu 'top', and h̄só 'nearness'.

It is clear from this description that the Igbo category 'place noun' corresponds in syntactic function, if not position, to what we are here calling 'postpositional noun'.³

If Greenberg's observations continue to prove valid, one would want to build this order correlation directly into the grammar, by deriving possessive (genitive) structures and 'postpositional' structures by the same

rule. We already have the following PS rule in the grammar:

PS rule 5a: NP \rightarrow (NP $\left\{ \begin{array}{l} \text{pé} \\ \text{wó} \end{array} \right\}$) N (DET) (wó)

where /pé/ and /wó/, it will be remembered, are the genitive markers. This rule can be adopted with no modification to generate NPs containing postpositional nouns. All we shall need is a rule deleting a genitive marker when it precedes a postpositional noun. In fact, such a rule is independently required in the grammar to delete genitive markers preceding kinship nouns; thus, beside regular forms such as

koff wó ábó 'Koff's arm'

we have forms in which the genitive marker is absent:

kofi fófó 'Kofi's father'

*koff wó fófó

Therefore we add the rule:

1) GENITIVE MARKER DELETION

$$\left[\begin{array}{c} \text{NP} \\ \text{NP} \end{array} \left\{ \begin{array}{l} \text{pé} \\ \text{wó} \end{array} \right\} \begin{array}{c} \text{N} \\ \text{NP} \end{array} \text{X} \right]$$

1 2 3 \rightarrow 1 \emptyset 3

This rule need not be further conditioned. Members of the noun subclasses 'kinship noun' and 'postpositional noun' will be redundantly assigned the rule feature /+GMD/ in the lexicon. All other nouns will be assigned the corresponding negative-valued feature. A few exceptions are noted.⁴

One consequence of these rules is that NPs containing postpositional nouns should show the same range of syntactic behaviour as other NPs. This appears to be correct. We observe, for instance, that both types of NPs undergo Restructuring in identical fashion:

mè-dyì hà	'I sang a song'
mè hà dyì-ń	'I'm singing a song'
me-de kofí gbó	'I reached Kofi'
me kofí gbó dé-gé	'I'm going to reach Kofi'

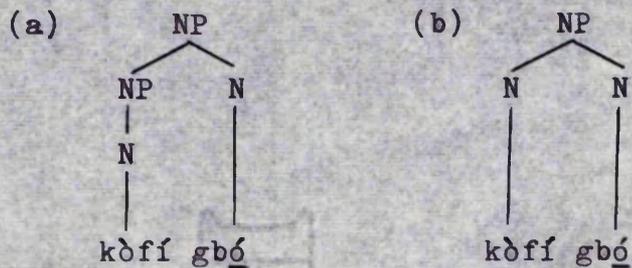
Similarly, NPs containing postpositional nouns can be frontshifted by Q-Movement and Relative-Movement, by Topicalization, etc.:

àgbà kà dyí é ne-da-e dó` load WH on set	'Which load did you set it on?'
nú hi dyí me-dó ńkú a set eye	'the thing which I set my eye on (= remembered)'
kofí dyí é mè-xò àgbàlě tó get letter	'I got the letter through <u>Kofi</u> '

Although it seems clear, then, that postpositions are true nouns, they do not have the same range of syntactic occurrence as most other nouns: for instance, they cannot be followed by modifiers such as a determiner or the plural morpheme /wó/. We must find an appropriate way of restricting their occurrence. We can do this by assigning these forms syntactic subcategorization features stating that they may only be substituted into NPs containing no modifiers:

$$\left[\begin{array}{c} \text{(NP } \{ \text{pé} \}) \\ \text{NP} \end{array} \right] \text{ — } \left[\text{NP} \right]$$

Let us consider an alternate proposal for generating postpositional nouns, one which seems superficially plausible and which does not embody the claim that NPs containing postpositional nouns are related in deep structure to NPs containing possessive modifiers. Suppose we were to introduce postpositional nouns by the rule $NP \rightarrow N \text{ (DET) (wó) N}$, where the rightmost N is the postpositional noun. All other things being equal, this solution might be considered superior on the grounds that it builds less structure into syntactic representations; compare the (derived) structure assigned to the NP /kòfí gbó/ by our first proposal, (a) below, with that assigned by the alternate proposal, (b):



These two analyses make different claims in two important respects. Only analysis (a) characterizes /kòfí/ as a NP. Analysis (a) characterizes the postpositional noun /gbó/ as the head of the NP (since the string NP { $\begin{smallmatrix} \text{pé} \\ \text{wó} \end{smallmatrix} \}$ is optional), while (b) characterizes /kòfí/ as the head, since the postpositional noun is optional.

To decide between these two approaches, let us consider the rule of Pronominalization. In Chapter 4.2, this rule was formalized in such a way as to operate on NPs rather than on nouns; this was to account for cases of Pronominalization such as the following, where the pronoun is coreferential with no single noun preceding it, but with the NP as a whole:

enye kplé wo mǐě-vá 'I and you (we) came'

If it is true that Pronominalization (whether considered a transformational rule or an interpretive rule) is defined on NPs, then /kòfí/ in the NP /kòfí gbó/ must itself be a NP, since it may be pronominalized:

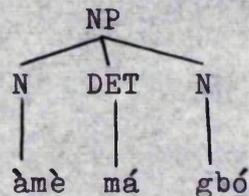
me-yi kofí gbó 'I went to Kofi's place'

me-yi é gbó 'I went to his (Kofi's) place'

This would constitute evidence in favor of analysis (a). But suppose we adopt the weaker claim that Pronominalization operates on constituents, without specifying the nature of these constituents; we may now observe a sentence such as

me-yi ame má gbó 'I went to that person's place'

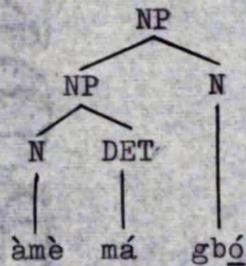
If analysis (b) were correct, the string /àmè má/ would not be a constituent, as it would be analysed:



However, this string may be pronominalized:

me-yi é gbó 'I went to his (that person's) place'

By analysis (a), however, this sentence presents no problem, as /àmè má/ is a constituent, exhaustively dominated by NP:



and therefore can be pronominalized.

Again, it seems true that when a NP (or at least a constituent) is pronominalized, the pronoun must agree with the head noun of the NP (or constituent) in all relevant features. Now let us observe what happens when the maximal complement NP (the underlined portion) of the following example is pronominalized:

me-yi kofí gbó → 'I went to Kofi's place'
 mè-yì àfí-má 'I went there'

If /kòfí/ were the head noun, the pronoun should have been the third person singular clitic object. Instead, we find the locative pronoun /àfí-má/ which substitutes for NPs indicating place. Its selection shows that the head noun of the underlined NP must be /gbó/. Thus, for yet another reason we find that analysis (a) must be retained over analysis (b).

In this section we have seen that the PS rules which generate possessive NPs in Ewe also generate NPs containing postpositional nouns. It might be hoped that arguments parallel to the ones given here can be presented for other languages having a similar class of 'postpositional' (or 'prepositional', 'bound' - see note 3) nouns, giving a natural explanation to the order characteristics noted by Greenberg.

4. Verbal subcategorization. We can now undertake an outline of the sort of facts that will have to be taken into account in any systematic syntactic subclassification of the Ewe verb. PS rule 4' (see section 2) allows three theoretically possible subcategorization frames:

- i) —
- ii) — CP
- iii) — CP CP

All these types are realized. We shall say that a verbal subentry with a frame of type (i) is intransitive; a verbal subentry with a frame of type (ii) is transitive; and a verbal subentry with a frame of type (iii) is ditransitive.

Transitive verbs are further subclassified on the basis of the type of complement they permit. There are two theoretic possibilities defined by PS rule 11:

- i) — NP
- ii) — V NP

We shall call the NP of the first type a direct object, a complement of type (ii) an oblique complement, and an NP belonging to an oblique complement the oblique object.

Similarly, there are four theoretically possible complement types for ditransitive verbs, of which only the first, second and fourth seem to be realized:

- i) — NP NP
- ii) — NP V NP
- iii) — V NP NP
- iv) — V NP V NP

(Structures such as (iii) will not appear as well-formed deep structures as long as no verbs in the Ewe lexicon have the corresponding subcategorization feature.) The terminology developed above will be extended as necessary to cover these cases; thus we will speak of the first object, the second object, the first oblique complement, etc. It will be noted that our terminology departs in several respects from traditional usage; however, it is doubtful whether the traditional categories can be given any consistent definition within a generative model.⁵

Verbs may be further subclassified on the basis of their behaviour in relation to Pronominalization. Let us observe the effect of Pronominalization on the following sentences containing transitive verbs:

me-kpó kofí	--->	me-kpó-è
'I saw Kofi'		'I saw him'
mè-yì kétá	--->	mè-yì àfí-má
'I went to Keta'		'I went there'
kofí nyé fofó-nyè	->	*kofí nyé-è
'Kofi is my father'		

When the direct object of the transitive verb /kpó/ is pronominalized, it is replaced by the appropriate form from the paradigm of reduced forms (Chapter 4.4). Pronominalization of the object of /yì/, however, gives us the indefinite pronoun /àfí/ 'place' modified by the determiner /má/ 'that'; we may call verbs exhibiting this behaviour verbs of motion or location. Finally, the object of /nyé/ 'be' cannot be pronominalized at all; we shall call verbs of this type copular verbs or copulas.⁶

A given verbal entry will not in the normal case consist of a single set of features but will be a disjunction of several subsets or subentries defining its total range of possible syntactic occurrences and its range of behaviour in regard to transformations (such as Pronominalization). Thus, a given verb may have transitive and intransitive subentries, etc. A case in point is the verb /dzè/, the basic meaning of which might be paraphrased 'to get to or attain (a place, thing or condition)'. In various related meanings, this verb may be intransitive, transitive and ditransitive:

gè dzè sun		'The sun has come up'
me-dze mó dyí way on		'I got on the way (= underway)'
é-dze dyí ná ñ		'I was successful at it'

Similarly, different subentries have different behaviour in regard to Pronominalization:

mé-dze kofí ò	--->	mé-dzè-è ò
'It doesn't become Kofi'		'It doesn't become him'
mè-dzè gè	--->	mè-dzè àfí-má
'I stayed at Accra'		'I stayed there'
kofí dzè dèkà one	-/->	*kofí dzè-è
'Kofi is handsome'		

Thus, /dzè/ has a set of subentries which define its possible syntactic occurrences and behaviour. We cannot in general claim that a certain verbal entry 'is' transitive, or copular, but rather that it has a certain range

of subentries, only one of which is selected in the case of any given non-ambiguous sentence.

Let us now ask what sort of criteria are available for determining whether a given string is a verbal complement, in the sense defined above. It seems that at least three relevant factors can be found. First, we shall say that a string of the form V NP or NP is a complement if the sentence containing it is ungrammatical when it is removed. By this criterion, the verbs of the following sentences are transitive:

me-ple nú	'I made a purchase'
*mè-plè	
me-ɖu nú	'I ate'
*mè-ɖù	
mè-wò d̀̀	'I worked'
*mè-wò	

Secondly, we may say that a string (V) NP is a complement if a given sentence changes its meaning in an unpredictable way when it is removed:

é-ku ɖé kofí gbó	'It depends on Kofi'
é-kù	'It hung'
me-de kofí nu	'I am Kofi's equal'
mè-dè	'I arrived'
é-ke ɖé kofí nú	'He met Kofi'
é-kè	'It stopped'

Both these tests apply as well to the second of two

complements following a ditransitive verb:

me-dé gà bò à mè 'I put metal in the door
(= locked the door)'

*me-dé gà

mè-dà tú dé kplǒ dyí 'I set a gun on the table'
set gun table on

mè-dà tú 'I fired a gun'

Adverbial adjunct will not qualify as complements by these tests:

é-kú dé xò mè 'He died indoors'

é-kú 'He died'

me-xa nú dé kofí ta 'I was sad for Kofi'

me-xa nú 'I was sad'

mè-xò àgbàlě tó kofí dyí 'I got a letter through Kofi'

mè-xò àgbàlě 'I got a letter'

A third criterion we can use is the rule of Restructuring. A given NP is a direct object if it can be preposed to the verb by this rule:

wó-dzrá akođú 'They sold bananas'

wó-no akođú dzrá-m 'They were selling bananas'

mè-yì kětá 'I went to Keta'

mè kětá yi-gé 'I'm going to go to Keta'

me-dé gà bò à mè 'I locked the door'

mè gà dé-gé bò à mè 'I'm going to lock the door'

5. Idioms. A striking characteristic of Ewe is the wealth and variety of its idiomatic expressions. These range from single-word utterances to complete sentences which take on their special, idiosyncratic meaning in the appropriate context:

wo e zǒ	'Welcome!' (literally: 'you have walked')
mè-dè kúkú	'Please' (lit.: 'I remove my hat')

The Ewe proverb may be regarded as a highly specialized type of sentential idiom.

Verbal idioms are particularly numerous in Ewe: a large part, perhaps a majority of lexical entries for verbs are to some extent idiomatic, in that the total expression is not entirely motivated semantically by its parts. Learning an idiom involves not only learning a particular verb but also one or more specific lexical items that must be selected with it, as well as their syntactic interrelationship. We have already seen several examples of idioms in previous sections, e.g.:

me-dó nkú kofí dyí set eye	'I set eye on (= remembered) Kofi'
é-ku dé kofí gbó hang	'It hangs from Kofi's side (= depends on Kofi)'
me-kpé dé kofí nú join	'I adhered to (helped) Kofi'

In such examples, we see that the meaning of the whole expression is not predictable from the individual meaning of the parts; rather, collocations such as /dó nkú...dyí/, /kú dé...gbó/ and /kpé dé...nú/ must be understood as forming a semantic unit.

Baëta (1962.139-41) has drawn particular attention to the importance of idioms in the Ewe lexicon. She contrasts non-idiomatic verbs such as /tótó/ 'mix up' whose meaning is relatively stable whatever its object with idiomatic verbs like /pú/ which frequently form a single unit of sense with their object, so that the total meaning of the expression is a function of both elements together:

kofí pú dù running	'Kofi ran'
kofí pú tsí water	'Kofi swam'
kofí pú dzò fire	'Kofi warmed himself'
kofí pú àsí -nú hand thing	'Kofi slapped something'
kofí pú ta nú nú head outside	'Kofi set about something'

(tonal indications are our own). She proposes the term 'helping noun' (dowonyakpeɖenununko) to distinguish such lexically-specified noun objects from unspecified ones.

When such idiomatic verbs govern a 'helping noun' as their only complement, they correspond in sense to intransitive verbs (see the first three examples, above); when they have a second, unspecified object as well they function semantically as transitive verbs (last two examples). Below we offer a further selection of some common Ewe idioms, where the indefinite pronouns /nú/ 'thing', /àmè/ 'person' will represent the unspecified (variable) second objects:

a) one object

dò gò	'come out'
mú àhà	'get drunk' (àhà: 'drink')
xà nú	'be sad'
nò ànyí	'exist' (ànyí: 'earth, ground')
dzè àgbàgbá	'try, make an effort'

b) two objects

dà tú nú	'shoot something' (tú: 'gun')
dó gò àmè	'meet someone'
tù àfò nú	'kick something' (àfò: 'foot')
fìè tyì nú	'boil' (tyì: 'water')
xé mó ná àmè	'obstruct someone' (mó: 'path')

We can represent the particular character of idioms in terms of the syntactic subcategorization features that we assign them. In the case of non-idioms, no particular lexical items need be mentioned in these features; but in the case of idioms, it will be necessary to specify those items which form a part of the expression as a whole. Thus we can say that a verbal idiom is a lexical (sub)entry consisting of a verb and one or more lexical items specified in the syntactic subcategorization feature of that verb.

The lexical items ('helping nouns', etc.) specified as part of a verbal idiom do not figure in the semantic representation assigned to the (sub) entry. In this respect we may say that they serve as constant expressions in the semantic representation, while lexically unspecified NPs serve as variable expressions. We thus propose the following partial lexical subentry for /dó/ and /kù/:⁷

/ḍó/: V, — àkú NP₂ dyí, ..., 'to remember NP₂'

/kù/: V, — ḍé NP₁ gbó, ..., 'to depend on NP₁'

The syntactic subcategorization feature /— àkú NP₂ dyí/ belonging to one of the subentries of /ḍó/ may be regarded as an instruction that the item in question may be substituted into a VP in which the first complement is the noun /àkú/ and the second complement is any NP terminating in the postpositional noun /dyí/. The fact that /àkú/, as an independent noun, means 'eye' does not enter into the semantic representation we have given to this idiomatic expression, and only NP₂ will be involved in the derivation of the semantic representation of sentences containing it.

Many verbal idioms are potentially ambiguous, as a non-idiomatic reading may be possible given the right context. Thus we find:

kofí hè	tó	ná	ḥ	1.	'Kofi pulled my ear'
pull	ear			2.	'Kofi punished me'

The first, non-idiomatic reading is a function of the meaning of each element of the VP; but the second reading is idiomatic, and depends upon the collocation of the specific lexical items /hè/ and /tó/. In the lexicon, therefore, /hè/ must have at least two subentries, roughly as follows:

/hè/: V, { — NP₁, ..., 'to pull NP₁'
— tó ná NP₂, ..., 'to punish NP₂' }

The presence of specified lexical items in the syntactic subcategorization feature of the second of the two entries

identifies it as idiomatic.

Idioms differ syntactically from non-idioms by the fact that they do not undergo certain syntactic rules; idioms apparently differ among themselves in the range of transformations that they may undergo. As an example, we observe that the (oblique) object of the following verbal idiom may not be pronominalized:

me-ke	dé koffí nú	'I opened upon (= met) Kofi'
	open	
{	*me-ke dé àffí-má	(ungrammatical in the meaning: 'I met him')
	*me-ke dé-è	

However, the possessive modifier of the postpositional noun may be pronominalized, giving:

me-ke	dé ẽ nú	'I met him'
-------	---------	-------------

We see that in such cases, a variable NP may be pronominalized, but not a constant.

6. Phrasal verbs. There are two types of verbal idioms which are particularly characteristic of Ewe, though not extremely numerous in the lexicon. Both involve discontinuous elements, and will therefore be termed phrasal verbs.

The first of these types may be illustrated by the following example:

mè-dzrà	gà à dó	'I stored the money'
---------	---------	----------------------

The verbal expression is composed of the two elements /dzrà...dó/ flanking the direct object. The element

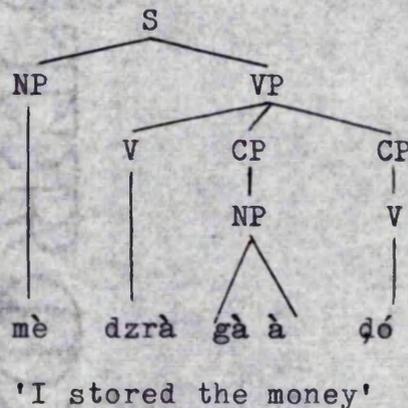
/dzrà/ is clearly a verb, but it is not at all clear what the status of /qó/ is. It is not in any case a main verb, as we learn from distributional evidence. First, as we mentioned earlier (p. 114), it appears that every main verb in an Ewe serial construction must be identically marked for tense; /qó/, however, is never marked for tense:

mà-dzrà gà à qó 'I'll save the money'
 *mà-dzrà gà à á-qó

Similarly, /qó/ may never be immediately preceded by a preverb P:

*mà-dzrà gà à hě-qó

In the lexicon, /qó/ already appears as a main verb meaning 'arrive; put, place, send'. It is also the alternant of the verbid /qé/ when its object has been preposed. We might therefore want to consider /qó/ in this phrasal idiom as an intransitive verbid. This analysis would account both for its failure to accept auxiliary markers, and for its phonological form. Thus we would have phrase-markers such as:



This, in fact, would appear to be the analysis originally given to the form by Westermann. He cites⁸ the

alternation of /ḍé/ and /ḍó/ in such clearly related forms as

- i) kplè àmè ḍó 'to accompany someone'
 ii) kplè àmè ḍé àfiá ḍé 'to accompany someone to a place'

The expression /dzrà...ḍó/ appears to have the same syntactic properties as (i) above, though we have not been able to find expressions with a full complement paralleling (ii).

We may find other types of phrasal verbs such as

me-vá kḗ wo ḍá 'I came to visit you'
 see

where the form /ḍá/ corresponds to no existing verbid, nor to any main verb (unless, rather fancifully, we attempted to relate it to /ḍá/ 'lay (an egg)'). A similar case is that of the expression /dà...ḍí/ 'set down' as in

nà-dyí nù nyuí áḍé á-da ḍí 'Look for something nice
 seek nice to set down'

Here and elsewhere, we find that the element /ḍí/ correlates with the meaning 'down', and there may be a relation with the main verb /ḍì/ 'go down'.

These constructions are not in general very productive. Only a handful of items may occur as the second element of the expression, and these do not usually contribute in a clear way to the total meaning (although /ḍí/ is an exception). In this respect, these idioms are quite different from the verb-preposition and verb-adverb idioms of English. For this reason, one might prefer to con-

sider the expressions as composite or separable verbs, occurring in lexical entries as /dzrà=dé/, /kplò=dé/, /kpó=dá/, /dà=dí/, etc. Observing that if the main verb of the expression has a direct object, the second element always occurs to the right of it, we would then introduce a transformation separating the two elements and moving the second one to the right of the object.⁹

A strong argument in favor of such an analysis would be the existence of some syntactic rule in the grammar which must apply before this permutation rule. We have not so far been able to discover such a rule, and thus can offer no proof that the more abstract representation is to be preferred over the alternative mentioned earlier. In view of this, we shall simply take note of the problem that exists here and hope that further investigation may contribute to solving it.

The second principal type of phrasal verb consists of main verb-main verb sequences. In these, the second element may receive tense markers:

me-xo kofí dyí sè 'I believe in Kofi'
 receive hear

mà-xo kofí dyí á-sè 'I'll believe in Kofi'

and similarly:

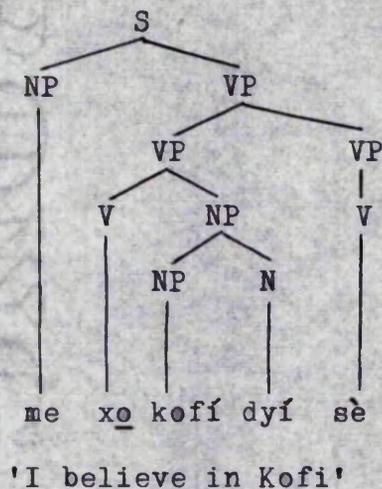
é và-vá-gé á-dó 'He will arrive'

wó-dé-a wó d'ókúí fiá-a mí 'They reveal themselves to
 remove show us'

The second element may also be preceded by preverbs:

é-no tyi hě-kú 'He drowned'
 drink water die

It seems clear that expressions such as these must be analyzed as serial verb constructions. According to most accounts, each member of a serial construction corresponds to a full sentence in deep structure representation.¹⁰ This creates a problem in the case of serial idioms, since we have been assuming that verbal subcategorization involves only the sister-constituents of V in the VP dominating it (the same problem is encountered when ~~when~~ we attempt to represent proverbs and other sentential idioms such as those given on p. 205). As neither the problem of idioms nor the problem of serialization has been fully worked out for any language within a generative theory of grammar, it would be pointless to attempt to solve both problems at once here. We may note, however, that Bangboṣe mentions a possible approach to serial verbs that would pose no great problem for the subcategorization of serial idioms. He suggests (Bangboṣe 1972, section 4) that the grammar of a 'serial' language might contain a rule $VP \rightarrow VP S$, where S is eventually reduced to a 'serial' verb phrase. This would allow us to assign serial idioms analyses such as the following:



(where Equi-subject deletion and perhaps S-pruning will have applied to the structure underlying the second VP). Since all elements of the serial idiom will fall within the highest VP in deep structure, they are relevant for the syntactic subcategorization of the first verb. The verb /xò/ could then be entered in the lexicon with a set of features including:¹¹

/xò/: V, — NP₁ dyí [NP₀ sè]_S ,..., 'to believe in NP₁'

where the index on NP₀ indicates that it is identical to the subject of the higher sentence.

There is another class of serial expressions forming a highly productive structural class. They characteristically consist of a member of a class of verbs of 'taking', 'picking up', or 'accompanying' followed by its direct object, and then a second verb phrase beginning with a member of the class of verbs of motion, an optional locative object, and the optional formative /è/, which is clitic to a preceding verb. Schematically we may represent this:

V_{take} NP V_{mot} (NP) (è)

and we find examples such as:

'é-tsó tukpá dzó è 'He took a bottle away'
take bottle leave

'é-tsó tukpá vǎ-ě ná ò 'He brought me a bottle'

'é-tsó gà à yì àpé mé è 'He took the money home'

'é-kplo kofí yì dù à mé è 'He accompanied Kofi to town'
town

as well as the literary:

nyonu pe ađe si nu kuḍo mele o la, hea dzre vaa apee
 woman tongue rudder draw quarrel

'A woman's tongue which has no rudder brings quarrel
 to the household' (TA)

The problem here is to account for the presence of /è/
 (which Ansre terms the 'redundant object'). An inter-
 esting point is that it is in complementary distribution
 with phrases beginning with the verbid /kplé/ 'and, with':

*'é-kplo kofí yì dù à mǎ kplí-ì

though we may have:

'é-yì dù à mǎ kplé kofí 'He went to town with Kofi'

The last example shows that /kplé/-complements may normal-
 ly be selected with verbs like /yì/ 'go'. When the
 $V_{\text{take}} - V_{\text{not}}$ construction is used, we may not have /kplé/,
 but the formative /è/ may appear in its place. It seems
 likely, therefore, that /è/ will be dominated in deep
 structures by whatever node dominates /kplé/-complements
 in examples like the last.

Whatever the correct analysis of these forms is, it
 seems that it will have to take into account the results
 of a fairly thorough investigation of serialization in
 Ewe. To date, this has not been carried out. We feel
 that due to the productivity of this structural type,
 (it is also used for instrumentals and adverbials of
 manner), it is not to be treated as idiomatic, and there-
 fore not to be treated in terms of lexical subcategori-
 zation.

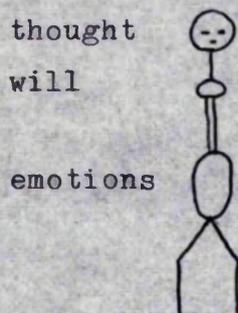
7. Subject-specified idioms. Ewe has a large number of idioms expressing atmospheric conditions and psychological states. These idioms, for the most part, share the grammatical property that their subject is lexically specified, and thus functions as a constant in the expression as a whole.

The idioms expressing atmospheric conditions consist of a subject noun referring to some natural force or phenomenon, followed by an intransitive verb of action which expresses figuratively the sort of force or activity proper to the subject. Thus we find expressions such as:

nù	kè	'It's morning'
daylight	open-up	
ètyì	dzà	'It rained'
water	drop	
èzǎ	dó	'It's night, night has fallen'
night	put-forth	
ndo	bù-bù-m	'It's sunny and hot'
noonday	swirl	
àhóm	tù	'There was a storm'
storm	push-out	

The psychological idioms are usually formed by a subject noun referring to some part or aspect of the body, followed by an intransitive or transitive verb. If the verb is intransitive, the 'experiencer' of the psychological state is represented by the genitive modifier of the noun referring to the body part. Agblemagnon has suggested that the Ewe proverb categorizes the human body into three principal parts, each corresponding to a different aspect of human psychological activity. The head

is the seat of the intellectual faculty, the heart represents the seat of courage and will, and the abdomen is the source of the emotions and instincts:



(Agblemagnon 1969.108). This schema appears to be applicable as well to the idioms of psychological state; as we suggested earlier, the proverb may be analyzable as a kind of sentence-idiom with a highly determinate contextual function. In the following examples, we do not attempt to illustrate Agblemagnon's schema, but provide some illustration of a few of the commoner idioms:

nù kpè-è eye be- heavy	'He's ashamed'
dyl dzò ì heart be-straight	'I'm happy'
é pè dzì dzè é mè heart get	'He was/is relieved'
dzì dé pò -nyè put-in belly	'I'm in good spirits' (Westermann 1905.76)
èdò míá wu -m belly kill	'We're hungry'
dòmè nò ò -è-m belly eat	'I had a stomach-ache'
dòmè (é) vé -m be-painful	'He's angry'

é nūtyí fá 'He's at peace'
be-cool

qèqì tē -nū-nyè 'I'm tired'
weariness

7.1. Lexical nominals. We recall that in the formation of nominals by Restructuring, the noun object permutes with the verb:

tù xò 'Build a house'
xò tu-tu 'house-building'

The agent of the action, corresponding to the subject of an independent sentence, may be expressed as a genitive modifier:

kofí tù xò 'Kofi built a house'
kofí pè xò tu-tu 'Kofi's house-building'

Subject-specified idioms are unique in that they appear to be exceptions to this rule. Where we would expect to find the subject noun followed by a genitive formative, we find instead that it occurs directly before the verb (which may or may not be reduplicated). The following table will illustrate the formation of lexical nominals from subject-specified idioms:

2)	<u>idiom</u>	<u>lexical nominal</u>	
	nù kè	nukeke, nkeke	'day'
	ètyì dzà	etyidzadza	'rain'
	dyì dzò	dyìdzò	'happiness'
	dyì dé pò	dyìdépò, dyìdépó	'courage'
	èdò wù àmè	èdòwùàmè	'hunger'
	dòmè qù	dòmèqù	'belly-ache'
	dòmè vé àmè	dòmèvéámè	'anger'

In the following examples, the specified noun subject is preceded (in non-nominal forms of the idiom) by a genitive modifier:

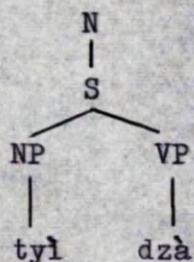
3)	<u>idiom</u>		<u>lexical nominal</u>	
	(é) nútyí	fá	nútyífáfá	'peace'
	(é p _é) dyì	dzè é mè	dyìdzémè	'relief, comfort'
	dyì(-nyè)	kú	dyìkú	'anger'
	(é p _é) d _è mè	nyó	d _è mènyónyó	'kindness'
	(é p _é) d _è mè	fá	d _è mèfáfá	'gentleness'

The genitive modifier is invariably omitted in the lexical nominal.

These lexical nominals appear to be exceptional in regard to Restructuring as long as we consider the lexically specified nouns occurring in them to be subjects; if they were objects at the time the rule applied, then the nominals would be entirely regular, and it would be the non-nominal forms that presented a problem. We would have to explain why an underlying object occurred as subject in non-nominal surface structures.

There is an even more serious problem. If we assume, on the basis of the semantic idiosyncrasy of these nominals, that they are entered in the lexicon as complex forms (see Chapter 3.2), rather than being formed transformationally, we find that Restructuring isn't defined on them at all, as long as the nouns are considered subjects. Thus if we assigned /ètyìdzàdzà/ the following lexical entry:

4)



we find that this structure is ineligible for Restructuring, which requires that a VP be exhaustively dominated by N (p. 89). Thus, in order to account for the verbal reduplication, we should have to place the reduplicative formative RED directly in the entry itself. We would thus be claiming that the nominals of (2) and (3) have quite a different underlying form from those discussed in Chapter 3.

Choosing this latter solution, we would have no way of explaining the fact that only subject-specified idioms form their nominals in this way. We would have to add an entirely unrelated statement to the grammar expressing the fact that lexical entries of the form (4) are possible only when there is a corresponding verbal entry in which the noun subject is lexically specified. Thus, lexical entry (4) would be illformed unless, in the entry for /dzà/, the noun /tyì/ were specifically mentioned as the subject of an idiomatic entry. There would have to be a further statement that in the case of subject-specified idioms, only these nominals are possible; thus we have no

* nu pɛ keke

* etyi pɛ dzadza

and so forth.

There is an approach that would allow us to overcome this difficulty, by stating the irregularity directly in the lexical entry. This would be to suppose that the specified nouns are in fact underlying objects. Lexical entries would now have to guarantee that the verbs in question only entered structures in which no noun subject was already present. We could do this by

subcategorizing the verbs in terms of an unfilled subject NP node, as by the use of the terminal element 'Δ'. This would give us lexical entries such as:

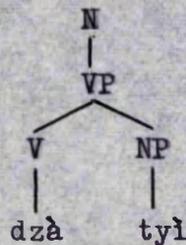
/kè/: V, Δ — nù, ..., 'to dawn'

/dzò/: V, Δ — dyl NP₂, ..., 'NP₂ be happy'

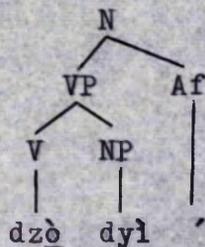
/fá/: V, Δ — NP₁ nútyí, ..., 'NP₁ be at peace'

Given such representations, it appears that the large part, if not all, of the lexical nominals can be derived by regular processes from uniform lexical representations. The cost of this approach is that we must add to the grammar a rule moving the underlying object into subject position, for the non-nominal forms.

If we accept this proposal, then a nominal such as /ètyìdzàdzà'/ would have the entry (5), paralleling the forms we saw in Chapter 3:



Restructuring applies to this form, giving the desired result. Nominals such as /dyìdzò'/ would have to be assigned rule features stating that they undergo RED-deletion, although in the case of this particular form this fact might be considered a result of the presence of the high-tone affix; thus we would have the entry:



and the derivation:

dzò	dyì	'	
dyì	RED-dzò	'	Restructuring
dyì	∅ dzò	'	RED-deletion
dyìdzò			(after tone-levelling and Degemination)

(The nominal /ètyìdzàdzà'/, on the other hand, does not have the high-tone affix in its lexical entry; its final rising tone is common to all reduplicated nominals, except for certain intransitive forms, and must therefore be placed by a general rule.)

Some support for the dummy-subject approach comes from certain idioms of this type in which the specified noun may occur either as subject or as object. An example is the expression /dèdìf té àmè/ 'to be tired':

dèdì té -nú-nyè 'I'm tired'

Here we find the lexically specified noun /dèdìf/ occurring as subject, as we would expect. But it may also occur as object, when a variable NP expresses the agent:

dowowo te dèdì novinye nu 'The work has tired my brother'

(Westermann 1905.108). This suggests that the dummy-subject requirement for this subentry of /té/ is only optional. When the subject NP slot is filled, /dèdìf/ cannot be moved front by the subject-formation rule, and remains in object position.

8. Qualifying verbs. In this section we shall look at a class of verbs which, for want of a better term, we shall call 'qualifying' verbs (as from a semantic point

of view they may be said to 'qualify' the VP they modify). These verbs have a distinctly auxiliary character, but differ from the auxiliary verbs of Chapter 2 in two respects: they have the syntactic characteristics of main verbs, and require gerundive nominals in their complements. From a semantic point of view they fall into two groups, a set of 'aspectual' verbs and a set of 'modal' verbs. Some representative examples from the first class are:

kofí dé àsí nu pó-po mé` put hand <u> </u> in talking	'Kofi started talking'
me-dze xo a tú-tu gómè get under	'I began building the house'
é-dzùdzò dò wó-wò stop	'He stopped working'
mè-lè dò wó-wò dyí	'I'm on work (= working)'
mè-yì hà dyì-dyì dyí	'I went on singing'

As we saw earlier (Chapter 3.6), there are many good reasons for believing that these restructured VPs function syntactically as nouns:

- i) they are observed to behave as NPs with regard to Restructuring, and therefore permute with the main verb:

dò wó-wò dyí nò-nò 'being on the job'

- ii) they accept noun modifiers:

dò wó-wò sésé dyí mè-lè 'Working hard, I am'

- iii) they occur as the rightmost element in pseudo-cleft constructions:

nú hi dyí wò-yì é-nyé dò wó-wò

'What he went on (doing) was working'

iv) they may be conjoined by the NP linker /kplé/:

mè-dzè d̀̀ wó-wò kplé hà dyl-dyl gòmè

'I began working and singing'

To these arguments we could add the fact that in the case of at least some of these expressions, the gerundive expression commutes with nouns:

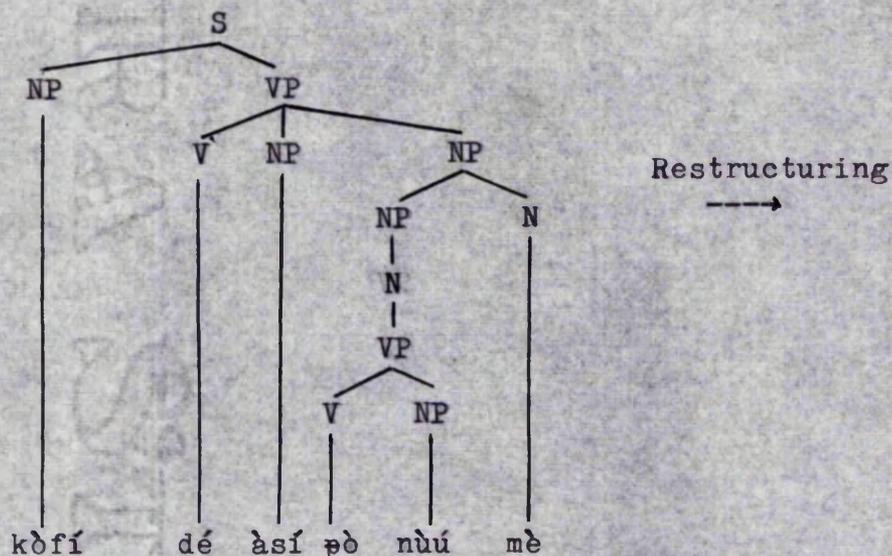
mè-lè { $\begin{matrix} d̀̀ & wó-wò \\ d̀̀ & \end{matrix}$ } dyl 'I'm on the job'

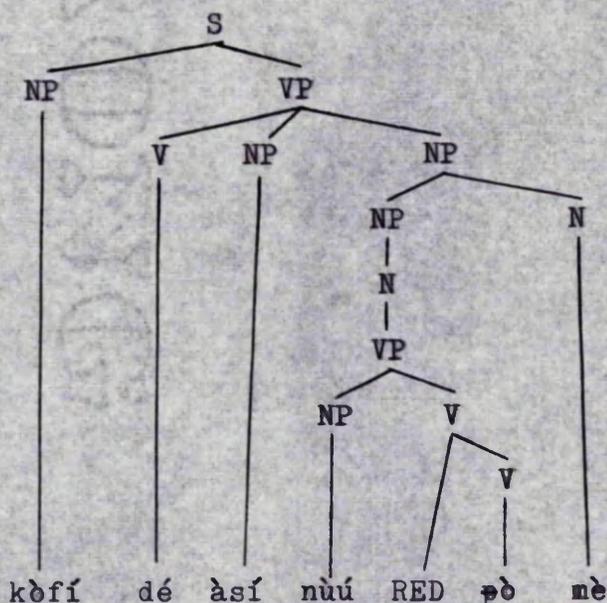
and may be pronominalized:

me-dze xò a tú-tu gòmè 'I began building the house' →

me-dze é gòmè 'I began building it'

If this analysis is correct, and these VPs are dominated by the node N, then the fact that they are restructured is an automatic consequence; Restructuring will apply to them without requiring any modifications in our original statement of the rule. We will have derivations such as the following:





The 'modal' group of qualifying verbs may be illustrated by the following examples:

- | | | | | | |
|-------------|----------|---------|---------|--------------------------|-----------------------|
| ě-dó | kpò | dè | wó-wo | 'He failed at his work' | |
| ě-tré | nu | wú-wu | | 'He was first to finish' | |
| | be-first | | | | |
| me-nyá | nú | xe-xlě | | 'I know how to count' | |
| | know | count | | | |
| àbòbó | gó | mé-se-a | gba-gbǎ | ò | 'The snail's shell is |
| snail shell | | | break | | easy to break' |

After the 'modal' expression /té nú/ 'be able', a restructured VP contains the affix /gé/:

- | | | | |
|-------|----|----------|------------------------|
| mà-té | nú | và-vá-gé | 'I'll be able to come' |
|-------|----|----------|------------------------|

The 'modal' verbs have the same syntactic characteristics as the preceding group of 'aspectual' verbs. It seems, however, that while the former examples are largely 'transparent' to selectional restrictions between the subject and the lower verb, verbs of the latter group

impose additional restrictions on the subject. Thus:

ètyì dzà	'It rained'
etyi dze dza-dza gómè	'It started to rain'

but:

*etyi tré dza-dza

Thus it would appear that any member of the aspectual group may be 'inserted' into any permissible noun+verb sequence with no loss in grammaticality, while this is not always the case for members of the modal group.

Structures underlying sentences with 'qualifying' verbs such as those exemplified here will be generated with the phrase-structure rules we have given so far. Qualifying verbs may be represented in the lexicon with syntactic subcategorization features which include the variable category VP. Thus we will have partial sub-entries such as:¹²

/dé/:	V, — àsí VP mè, ..., 'to start VP-ing'
/dzùdzò/:	V, — VP, ..., 'to stop VP-ing'
/dó/:	V, — kpò VP, ..., 'to fail at VP-ing'

9. Sentential complementation. We shall conclude our brief survey of Ewe verbal subcategorization with some remarks on those verbs which may take sentential subjects and sentential complements. We confine our attention, however, to verbs whose sentential complements (or subjects) contain the overt formative of subordination /bé/ (or its alternants /béná, né/), thus excluding the complicated question of serialization.

(i) Let us observe, first of all, a class of structures containing 'impersonal' subject pronouns cooccurring with sentence-final clauses introduced by /bé/ ('bé-clauses'). The following sentences will serve as examples; we notice that the verb of the final clause is sometimes indicative, sometimes subjunctive:

- 5) é-nyó bé wò-dzó 'It's fine that he left'
- 6) é-le vévíé bé wò-à-dzó 'It's important that he leave'
be important
- 7) é-wo nukú ná ì bé wò-vá 'It surprised me that he came'
do wonder
- 8) á-a-nyó ná m wú bé wò-à-vá 'It would be better for me
more that he come (= I'd prefer him to come)'

It would appear at first sight that in order to generate these sentences it will be necessary to add a new PS rule, permitting sentences to embed themselves to the right of any other element of PRED. Thus, it might be proposed that we replace PS rule 2 with the following: $S \rightarrow NP (NEG) PRED (S)$. At least two facts suggest that this cannot be the solution. We notice first of all that these verbs may elsewhere occur with NP subjects:

- àgbàlè à nyó 'The book is good'
- yé wó dzo-dzó lè àpé me nyó 'His leaving home was good'
- wó-wo-a nukú ná ì 'They surprise me'

In such cases, it is no longer possible to have an embedded clause:

* àgbàlè à nyó bé wò-dzó

The proposed PS rule would allow such structures to be generated freely, and additional mechanisms would have

é-dó akú kofí dyí 'He remembered Kofi'

such nouns cannot occur when the /bé/-clause follows:

* é-dó akú kofí dyí bé kofí tò dzò

But the proposed PS rule would generate such structures, and again we would require some filtering mechanism to rule them ungrammatical. Again, let us observe how Pronominalization acts upon these structures; compare:

- 9) a. me-nyá bé é-vá 'I know that he came' →
 b. me-nyá-è 'I know it'
- 10) a. me-nlò bé bé é-vá 'I forgot that he came' →→
 b. me-nlò-e bé 'I forgot it'
- 13) a. é-dó akú é dyí bé kofí tò dzò 'He remembered that
 Kofi was right' →→
 b. é-dó akú é dyí 'He remembered it'

Assuming that Pronominalization acts upon structures generated by the proposed PS rule, we are forced to the conclusion that this rule performs different sets of operations depending upon the structure in question. In (9), the eventual effect of Pronominalization is to replace the /bé/-clause with a pronoun, as we would have expected. In (10), however, the rule would not only have to replace the /bé/-clause with the pronoun but would permute it with the particle /bé/ which forms the second element of the phrasal expression /nlò...bé/ 'forget'. In structures such as (13) the rule would simply delete the /bé/-clause. These complicated conditions would make the status of the rule of Pronominalization very problematical indeed. And they would require us to obscure a very simple fact: in the pronominalized structures, the pronoun always occurs in the position of an object NP.

A further way in which the proposed PS rule would misrepresent our data is that it does not account for the nominal properties of /bé/-clauses. We have already seen that they commute with nouns, if not always positionally then at least in terms of mutual exclusivity, and that they may apparently be pronominalized, although we have not succeeded in finding a clear statement of how this takes place. We also observe that they may occur as the predicates of pseudo-cleft structures:

nú hi nyó ě-nyě bé wò-dzó 'What is fine is that he left'

Notice, in addition, that it is the subject position which has been relativized, rather than a position in the predicate of the embedded sentence, as the proposed PS rule would have predicted:

*nú hì wò-nyó ě-nyě bé wò-dzó

All the facts discussed to this point can be handled very simply if we assume that /bé/-clauses occur as deep-structure subjects and objects in these examples, and are then moved to the right of the sentence in which they occur by a rule of Extraposition, to give the surface forms. This would explain why /bé/-clauses cannot cooccur with subject (object) nouns. If Extraposition applies after Pronominalization and the rules involved in the formation of relative clauses, it will account for surface pronouns and pseudo-cleft sentences. Let us, therefore, adopt the following rule:¹³

14) EXTRAPOSITION

$$\begin{array}{ccccccc}
 \left[\begin{array}{cccc} X & \text{bé NP} & (\text{NEG}) & \text{PRED} & Y \end{array} \right] & & & & & & \\
 \text{S} & & & & \text{S} & & \\
 1 & & 2 & & 3 & \longrightarrow & 1 \left[\begin{array}{c} 2 \\ +\text{PRO} \end{array} \right] 3 \ 2
 \end{array}$$

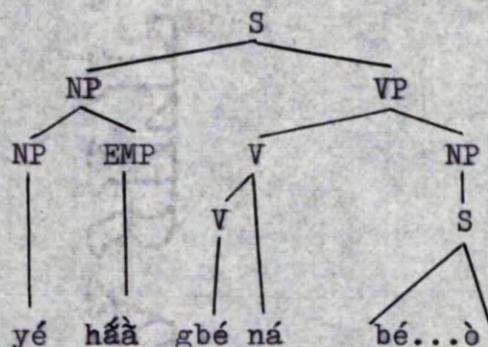
In this version of the rule, it performs two operations: it copies the /bé/-clause to the right and it adds the feature /+PRO/ to the NP node dominating its original occurrence. (Alternatively, we might have generated the impersonal or 'expletive' subject or object pronoun /é/~ /è/ as head of all embedded sentences by a base rule (replacing PS rule 5b) NP → yé S^o.)

In some cases it appears that Extraposition must apply 'vacuously', that is, it effects no change in the surface order of elements, but only in their constituent relations. Let us observe the following sentence:

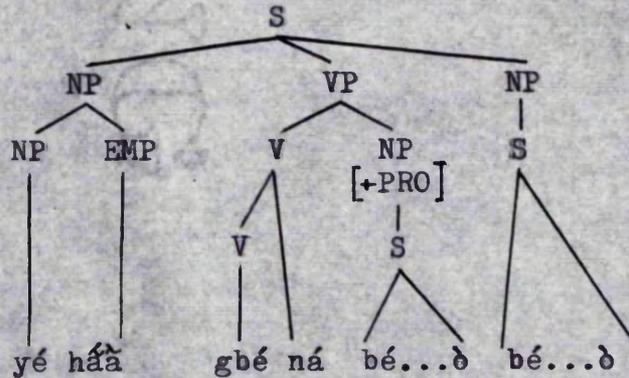
15) yí hǎǎ gbé -ná bé yè-mé nùtsú má ɖe -gé ò
 refuse man marry

'She too refuses to marry that man'

Here we find that the habitual formative /ná/ has not been reduced by the rule of Habitual Formative Reduction, as we might have expected (see Chapter 2.2). This suggests that either /bé/-clauses are an unexpected exception to this rule, or that Extraposition has applied to take the /bé/-clause out of the VP in which it was generated as an object. Prior to Extraposition (15) will have the derived structure:



If we suppose that Extraposition applies ('vacuously') to this structure, we will have:



The pronominalized NP will be eliminated by the application of Pronoun Substitution and eventually deletion (see also sentences (9-11) where deletion has taken place). The /bé/-clause which results is no longer the object of the verb. Therefore, Habitual Formative Reduction will not be defined, and (15) will be properly generated. Examples such as these suggest that Extraposition must apply uniformly whenever it is defined.

We may now turn to the lexical representation of verbs accepting sentential subjects and complements. We have seen that verbs will have to be subcategorized in terms of elements internal to these clauses, since most verbs do not occur freely with all members of the category T. Let us adopt the following definitions:¹⁴

$$S_i = \text{indicative clause} = \left[\begin{array}{c} \text{NP (NEG)} \left(\left\{ \begin{array}{l} \text{áà} \\ \text{ná}_1 \\ \text{ná}_2 \end{array} \right\} \right) \text{ X} \\ S^{\circ} \qquad \qquad \qquad S^{\circ} \end{array} \right]$$

$$S_n = \text{non-indicative clause} = \left[\begin{array}{c} \text{NP (NEG)} \left\{ \begin{array}{l} \text{né} \\ \text{ná}_3 \end{array} \right\} \text{ X} \\ S^{\circ} \qquad \qquad \qquad S^{\circ} \end{array} \right]$$

Some verbs accept either S_i or S_n ; in such cases we need not subclassify the complement clauses. Thus, for instance, we have:

me-gblo ná kofí bé ne-vá	'I told Kofi you came'
me-gblo ná kofí bé wò-à-vá	'I told Kofi to come'
é-ná bé wó-tó dzò kópé á give set fire village	'He had the village burned'
é-ná bé wó-á-tó dzò kópé á	'He ordered the village burned'

Since the sense of /ná/ seems to vary according to whether the complement clause is S_i or S_n , it would seem unnecessary to set up two subentries, one with the meaning 'have (something done)' and the other with the meaning 'order'; these meanings are predictable from the presence or absence of the subjunctive.

/ná/: V, — S, ..., 'to order, cause NP_1 '

We shall conclude this section with some remarks on two deletion rules which play a minor role in the derivation of sentences containing embedded clauses. One of these will delete the verbid /ná/ whenever it precedes an embedded clause immediately. This will be applicable in the case of those verbs which take oblique sentential complements. The verbid may be observed in those structures in which its sentential object has been preposed, as by relativization in pseudo-cleft sentences:

nú hi wó-yó m ná é-nyé bé má-đu nú
call eat

'What they called me to (do) was to eat'

It disappears when the sentential complement occurs in its normal position:

wó-yó m bé má-du nú 'They called me to eat'

Similarly, we find examples such as the following:

nú hi me-kpó dyldzò ná é-nyé bé míé-du dyl
 see happiness win

'What I was happy about was that we won'

me-kpó dyldzò bé míé-du dyl

'I was happy that we won'

nú hi míé-kpé dé kofí nú ná é-nyé bé wò-tù xò
 help

'What we helped Kofi (do) was to build (a) house'

míé-kpé dé kofí nú (bé) wò-tù xò

'We helped Kofi build (a) house'

Assuming that /ná/ occurs in base structures, we will have lexical entries such as the following:

/yó/: V, — NP₁ ná S_n,..., 'to call NP₁ to NP₂'

/kpó/: V, — dyldzò ná S₁,..., 'to be happy about NP₂'

/kpé/: V, — dé NP₁ nú(tyí) ná S, ..., 'to help NP₁ with NP₂'

The verbid /ná/ will be appropriately deleted by the following rule:

16) VERBID DELETION

$$\begin{array}{ccc} \left[\begin{array}{cc} \text{ná} & \text{S} \\ \text{CP} & \text{CP} \end{array} \right] \\ \begin{array}{ccc} 1 & 2 & \longrightarrow \emptyset 2 \end{array} \end{array}$$

We may not conclude from this that Ewe does not have the means for creating new verbal expressions. In the preceding sections of this chapter we have seen that the possibilities for creating new idioms are practically unlimited, and contribute in an important way to the wealth of the Ewe lexicon. Thus, to express the concept of communicating by telephone, Ewe speakers have introduced the new idiom /yó àmè dé kà dyí/ 'call a person on wire', i.e. to telephone a person. Another important means of developing new verbal concepts consists in the syntactic device of serialization. We have seen several examples in this chapter (see section 6) of how serial expressions may become 'fixed' in new, idiomatic meanings.

We find furthermore a great flexibility in the range of syntactic frames which a given verb may accept. This flexibility is in part systematic. For instance, a large number of verbs in the lexicon which occur in intransitive structures may also, with no morphological change, enter transitive causative structures. The subject of the intransitive verb then corresponds to the object of the transitive verb. Let us observe the following examples:

kofí gbugbo tsó gě return	'Kofi returned from Accra'
me-gbugbo kofí tsó gě	'I brought Kofi back from Accra'
àtyí mu dé -mó dyí tree fall road	'A tree fell on the road'
wó-mù àtyí dé -mó dyí	'They felled a tree on the road'
àvò à wǒ vúvú cloth tear	'The cloths tore'
me-vúvú ávò à wó	'I tore the cloths'

This systematic relation between intransitive and transitive entries is quite productive in the lexicon. The following are a few more examples; many others could be given:

18)	<u>intransitive</u>	<u>transitive</u>
	bú 'get lost'	'lose'
	dzò 'be straight'	'straighten out'
	ḡó 'be ready, arranged'	'prepare, arrange'
	ḡó 'arrive'	'send'
	pò pú 'assemble'	'assemble'
	gbà 'break'	'break'
	gblè 'be spoiled'	'spoil, waste'
	glá 'be hidden'	'hide'
	hè 'straighten out'	'pull, straighten out'
	xé 'be blocked'	'block'
	kàkà 'spread out'	'spread out'
	kèkè 'be wide'	'widen'
	kó 'be high'	'raise, lift'
	mli 'roll'	'roll'
	né 'break off'	'break off'
	tó 'stop'	'stop'
	tótó 'be mixed up'	'mix up'
	tró 'turn'	'turn'
	bù 'move'	'move'

The transitive entries add the notion of 'causativity' to the intransitive entry and often other accretions of meaning; thus, 'raise' is not necessarily the same as 'cause to be high', nor is 'send' the same as 'cause to arrive'.

We find similar correlations between transitive verbs and causative ditransitive verbs:

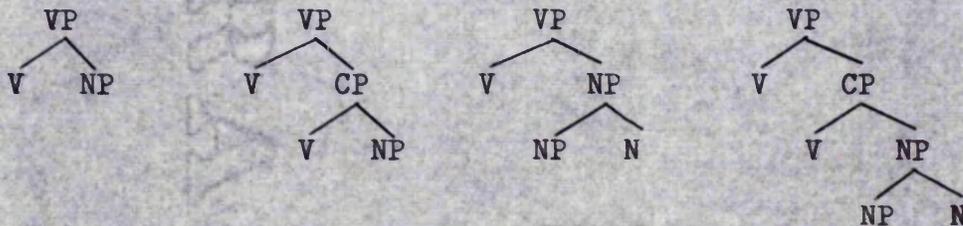
19)	<u>transitive</u>	<u>ditransitive</u>
kù (ǰé)	'hang from'	'hang NP ₁ from NP ₂ '
tè	'approach'	'draw NP ₁ toward NP ₂ '
tù	'hit on, meet'	'thrust NP ₁ into NP ₂ '

Not all the verbs in the Ewe lexicon enter into this productive pattern, however. We find many unpredictable gaps in the system: intransitive verbs that may not be used transitively, transitive verbs that may not be used intransitively, etc., for which there seems to be no other verb (whether morphologically identical or not) that conveys the concept required. The following verbs appear to be examples (the asterisks indicate that a verb does not occur productively in the given column, though in some cases we find marginal examples of idioms):

20)	<u>intransitive</u>	<u>transitive</u>
gbò ¹⁶	'return'	*
vá	'come'	*
ǰì	'be slippery'	*
tyì	'grow, be old'	*
lálà	'wait'	*
fò	*	'pick up'
nò	*	'drink'
dzrá	*	'sell'

Similar examples can be given for the case of transitive vs. ditransitive entries. It would appear, then, that speakers must learn to distinguish among verbs that are ambivalent in regard to transitivity (or ditransitivity) and those which are not. There can be no lexical redundancy rule relating the paired sets of (18) and (19), unless we are prepared to allow these redundancy rules to have random exceptions.¹⁷

The syntactic flexibility of the average verb entry is only in part systematic, however, and the normal case seems to be that different, often unrelated meanings may be associated with different syntactic frames. Due to the fact that a verb may be subcategorized both in terms of the category 'prepositional verb (verbid)' and the category 'postpositional noun', the number of theoretically possible frames is very great. Thus, a transitive verb may be associated with any of the following syntactic frames, or with several of them, and may have a different meaning in each case:



A ditransitive verb will have $4 \times 4 = 16$ theoretically possible complement-types. Such possibilities are extensively exploited in the lexicon.

We now see the central importance of verbal syntax and verbal syntactic distinctions in the formal organization of the sound-meaning relationship in Ewe. While the number of verb stems is itself severely limited, there is no upper limit on the number of verbal concepts which the language disposes of. This is because the verbal concepts which cluster around stems are associated with formally distinct syntactic characteristics in each entry, and are thereby sharply differentiated among themselves. Verbal specialization, largely a matter of derivational morphology in many languages, is primarily a syntactic phenomenon in Ewe.

To illustrate the discussion of this section, we provide an example of what might be a partial entry for an Ewe verb. We do not aim at either completeness (within the feature representation of each branch) or exhaustiveness (as many other usages and meanings may be discovered with little trouble). We give only the category feature / V /, the syntactic subcategorization features, and a gloss representing the set of semantic features in each subentry (it is intended only to identify the entry, and not to provide an exact English paraphrase). The verb /dzè/ has been chosen as its many subentries illustrate most of the verbal subtypes we have investigated up to here.

/dzè/: V,

1. 'to attain'

(i) a place:

- NP₁ (a) 'to get to' (lit. and fig.)
- (b) 'to lodge at'
- (c) 'to alight' (of birds)
- ànyí 'to fall down'
- NP₁ dyí 'to fall on, attack NP₁'
- dyí 'to come up' (of new moon)
- dyí ná NP₂ 'to be successful for NP₂'
- VP gòmè 'to begin VP-ing'
- NP₁ nù 'to please NP₁'
- NP₁ nú 'to overtake NP₁'
- Δ — NP₁ dyì yé mè 'NP₁ be relieved'

(ii) a condition:

- d̀ò 'to get sick'
- ǰ̀èkà 'to be handsome'
- àǰ̀ànù 'to be clever'
- àǰ̀àbà 'to be crazy'

(iii) a thing:

- NP₁ (a) 'to buy' (of liquid objects)
- (b) 'to master' (a language)

2. 'to split':

- (NP₁) '(to cause NP₁) to split'
- NP₁ nú 'to give way to (on a street)'

3. 'to be fitting'

- NP₁ 'to suit, become NP₁'
- S_n — (ná NP₁) 'to be incumbent, fitting (on NP₁)'

4. — sí NP₂ 'to notice, recognize NP₂'

5. — àǰ̀bàǰ̀bà 'to make an effort'

THE RULES: SUMMARY AND DISCUSSION

This concluding chapter presents a resumé of the more important rules discussed, with some observations and discussion. Section 1 summarizes the PS rules, and section 2 brings together the transformational rules in a suggested partial ordering.

1. Phrase-structure rules. The phrase-structure rules of a language are not given by any a priori principles, but are arrived at through consideration of the overall cohesiveness and degree of generality of the grammar. We believe that the system we have outlined may prove of value for many aspects of Ewe syntax not directly considered in this study; however, other systems are undoubtedly possible and may prove necessary as investigation continues. We have used the following rules (references in parentheses are to the chapter and section where each rule was first introduced, or later modified):

1. $S^{\circ} \rightarrow S \quad (Q) \quad (2.1)$
2. $S \rightarrow NP \quad (NEG) \quad PRED \quad (2.1)$
3. $PRED \rightarrow AUX \quad VP \quad (ADV) \quad (2.1)$
4. $VP \rightarrow V \quad (CP \quad (CP)) \quad (2.1, 6.2)$
5. a. $NP \rightarrow \left((NP \left\{ \begin{array}{l} pé \\ wó \end{array} \right\}) \quad N \quad (DET) \quad (wó) \right) \quad (2.1)$
- b. $\left. \begin{array}{l} S^{\circ} \\ PRO \\ NP \quad EMP \end{array} \right\} \quad (2.1)$
- c. $\left. \begin{array}{l} PRO \\ NP \quad EMP \end{array} \right\} \quad (4.1)$
- d. $\left. \begin{array}{l} NP \quad EMP \end{array} \right\} \quad (4.2)$
6. $DET \rightarrow \left\{ \begin{array}{l} ART \\ DEM \end{array} \right\} \quad (2.1)$
7. $AUX \rightarrow (T) \quad (P)^* \quad (A) \quad (2.1)$
8. $T \rightarrow \left(\begin{array}{l} áà \\ ná_1 \\ ná_2 \\ ná_3 \\ ně \end{array} \right) \quad (2.2, 5.6)$
9. $A \rightarrow V \quad Af \quad (2.4)$
10. $Af \rightarrow \left\{ \begin{array}{l} m \\ gé \end{array} \right\} \quad (2.4)$

11. N → (NEG) VP (3.1)

12. CP → (V) NP (6.2)

Our motivation for placing Q outside of S (rule 1) comes from the rule of Extraposition (Chapter 6.9). This rule moves a subordinate clause to the end of the first sentence containing it; however, it never moves to the right of Q, suggesting that Q is not a constituent of this sentence. A similar argument can be based on the rule of Extraposition from NP, not discussed here, which moves a relative clause away from its head noun to the right of the first sentence containing it:

nú li hi dyí-m nè-lè à
 thing exist REL seek

'Is there anything you want?'

Rule 2 places NEG to the left of the predicate phrase rather than to the right, thus making it correspond to the first element of the discontinuous negative marker /mé...ò/. This element seems the more basic, as its alternant /má/ appears alone in negated gerundives (rule 11). We have placed NEG in S rather than in S⁰ for the following reasons:

- (i) sentences containing Q are not freely conjoinable with sentences not containing Q, while sentences containing NEG are freely conjoinable with sentences not containing NEG. This suggests that the two types of structures should be kept separate.
- (ii) relative clauses may contain NEG, but not Q;

we can account for this directly, in a phrase-structure approach to relativization, by generating S rather than S^0 as the embedded sentence underlying relative clauses, by an eventual rule adding S optionally to the right of rule 5a.

- (iii) we wish to avoid violation of the generally accepted constraint (Chomsky 1965:146) against rules which introduce morphological material into configurations dominated by S, once the cycle of that S has been passed. If NEG were in S^0 , we would have a violation when NEG is moved into S.

None of these arguments are conclusive, and we therefore place no great emphasis on the sequential position of NEG in underlying phrase-markers.

The arguments in favour of a node PRED (rule 2) are not particularly strong. There seem to be at least three rules which can be simplified if we have this node: subject pronoun reduction, the internal subject pronoun rule (both discussed in Chapter 4.4), and finally the rule which must place the second element of the negative formative /mé...ò/, which we have not given. There would seem to be further support for this node from native speaker intuitions. In his discussion of the formal structure of the Ewe proverb, Agblemagnon observes:

In general, the structure of the proverb imitates the structure of the sentence. However, proverbs are not constructed like all sentences; they are normally composed of two parts, often of two simple propositions. The first part, which contains the key idea, can be considered as principal; the second part which is the response can be considered the pedagogic consequence of the first.

(Agblemagnon 1969.99). If it is true that the structure of the proverb imitates that of the sentence, then we should expect to find that the two parts of which a proverb consists will correspond to the major grammatical constituents. This expectation is confirmed by Agblemagnon's examples, as long as we assume a basic subject-predicate division in the sentence: his divisions correspond to those between subject and predicate, extracted (or shifted) NP and sentence, and subordinate clause and main clause. There is no example of a division between the main verb and the object.

We have given our arguments for the constituent VP of rule 3 in Chapter 6.1. The question of the constituent AUX poses particularly difficult problems. We know of no arguments for or against attachment at any particular point of an underlying phrase-marker, or for that matter in favour of treating its elements as a single constituent. For this reason, we have generally spoken ^{not} of the auxiliary 'constituent' but of the auxiliary 'complex'. Although we have generated it as a single constituent, this decision has no consequences for any of the discussion elsewhere.

One problematical consequence of our decision to treat AUX as a single constituent is that the rule expanding it expands only into optional elements, in violation of the usual constraint on PS rules. We could escape this difficulty by the use of a 'zero' morpheme in the paradigm T, which would then be obligatory; but there seems to be no good reason for doing this, and at least two arguments against it:

- (i) the lexical entry of the verb /lè/ (see Chapter 2.6) provides that it will have the phonological form /nò/ whenever a tense element occurs

to its left. When no tense element is overtly present (i.e. when the clause is unmarked for tense) the form /lè/ is retained. The statement of this alternation is very simple if we can use the category symbol T in the environment; but if there is to be a zero element T in this paradigm, the rule must list all its five members, or else add the condition $T \neq \emptyset$.

- (ii) verbs of perception such as /kpó/ 'see', /sè/ 'hear', etc., may govern embedded clauses, on the condition that these clauses do not contain an overt member of T:

me-kpó kofí wò-ɔ-nú 'I saw Kofi eat'

compare:

* me-kpó kofí wò-à-ɔ-nú

* me-kpó kofí wò-ɔ-a nú

Again, we observe that this statement is easily formulable if T does not contain a zero member; if it did, we would have to list all the phonologically specified members, or add the condition on T mentioned in (i).

We feel that this problem concerns the formal nature of the model rather than substantive matter of Ewe, and suggests that the status of AUX within a phrase-structure grammar should be reconsidered.

As rule 4 has been discussed elsewhere (Chapter 6.2), we turn to rule 5a, which defines the range of possessive structures dominated by NP. As we have given it, this rule claims that the 'possessed' or 'governing'

NP = PRO: mǎ noví
'our brother'

NP = NP EMP: wóawó háǎ wó pome a wó
family
'their family, too'

These examples show that NP is recursive in possessive structures, but only when occurring as the genitive element.

2. Transformational rules. In this section the major transformational rules introduced in the text are summarized, with a parenthetical reference to the section(s) where it was discussed. Slight revisions have been introduced as necessary in view of later discussion. The order of application of the rules is not, as we have seen, indifferent. Where a rule R_1 must apply in derivations before a rule R_2 , we write 'pr R_2 ' in the entry for R_1 .

The place of Tree-Grafting (Chapter 3.7) is not known, but it will precede Restructuring in any derivation, and perhaps earlier rules.

1. AFFIX-MOVEMENT (2.4; pr 3)

$$\left\{ \begin{array}{l} \text{ná}_{1,2} \\ \text{Af} \end{array} \right\} \quad (\text{P})^* \quad \text{V}$$

$$1 \quad 2 \quad 3 \quad \longrightarrow \quad \emptyset \quad 2 \quad \left[\begin{array}{l} 3 + 1 \\ \text{V} \quad \text{V} \end{array} \right]$$

7. VERBID DELETION (6.9)

$$\begin{array}{ccc} \left[\begin{array}{cc} \text{ná} & \text{s} \\ \text{CP} & \text{CP} \end{array} \right] \\ 1 & 2 & \dashrightarrow \emptyset 2 \end{array}$$

8. /bé/-DELETION (6.9)

$$\begin{array}{ccccccc} \left[\text{V} & (\text{CP}) & \text{bé} & \text{X} \right] \\ \underbrace{\hspace{1.5cm}} & & & & & & \\ 1 & & 2 & 3 & \dashrightarrow & 1 & \emptyset & 3 \end{array}$$

9. EXTRAPOSITION (6.9; pr 10)

$$\begin{array}{ccccccc} \left[\text{X} & \text{bé} & \text{NP} & (\text{NEG}) & \text{PRED} & \text{Y} \right] \\ \text{S} & & \underbrace{\hspace{2cm}} & & & & \text{S} \\ 1 & & 2 & & 3 & \dashrightarrow & 1 \left[\begin{array}{c} 2 \\ +\text{PRO} \end{array} \right] 3 & 2 \end{array}$$

10. PRONOUN SUBSTITUTION (4.3)

$$\begin{array}{ccccccc} \text{X} & \left[\begin{array}{c} \text{Y} \\ \text{NP} \end{array} \right] & \text{Z} \\ & \left[\begin{array}{c} +\text{PRO} \\ \alpha \text{ per} \\ \beta \text{ pl} \end{array} \right] & \\ 1 & 2 & 3 & \dashrightarrow & 1 & \left[\begin{array}{c} \text{pronoun} \\ \alpha \text{ per} \\ \beta \text{ pl} \end{array} \right] & 3 \end{array}$$

11. GENITIVE MARKER DELETION (6.3; pr 12, 13)

$$\begin{array}{ccccccc} \left[\text{NP} & \text{NP} & \left\{ \begin{array}{c} \text{pé} \\ \text{wó} \end{array} \right\} & \text{N} & \text{X} \right] \\ & & & \underbrace{\hspace{1cm}} & \text{NP} \\ 1 & 2 & 3 & \dashrightarrow & 1 & \emptyset & 3 \end{array}$$

12. GENITIVE PRONOUN PERMUTATION (4.7)

$$\left[\begin{array}{c} \left\{ \begin{array}{l} \text{nyè} \\ \text{wè} \end{array} \right\} \\ \text{NP} \end{array} \right] \left\{ \begin{array}{l} \text{N} \quad \text{X} \\ \text{V} \quad \text{Af} \end{array} \right\} \left[\begin{array}{c} \\ \text{NP} \end{array} \right]$$

$$1 \quad 2 \quad 3 \quad \longrightarrow \quad 2 \quad 1 \quad 3$$

13. GENITIVE PRONOUN DELETION (4.7)

$$\left[\begin{array}{c} \text{yé} \quad \left\{ \begin{array}{l} \text{N} \quad \text{X} \\ \text{V} \end{array} \right\} \\ \text{NP} \quad \quad \quad \text{NP} \end{array} \right]$$

$$1 \quad 2 \quad \longrightarrow \quad \emptyset \quad 2$$

MORPHOLOGY

1. IMPERATIVE SUPPLETION (5.2, 5.4; pr 4, 6, 8, 9, 10, 11, 12, 14)

$$\text{né} \longrightarrow \left\{ \begin{array}{l} \text{ná}_3 / \left[\text{X} \left[\left\{ \begin{array}{l} 1 \text{ per} \\ 2 \text{ per} \\ + \text{ PRO} \end{array} \right\} \text{--- Y} \right] \text{Z} \right] \\ \text{gà} / \text{mé ---} \end{array} \right\}$$

2. NEGATIVE SUPPLETION (5.4; pr 3, 15)

$$\text{mé} \longrightarrow \text{ná}_3 / \text{nyè} \text{---} \left[\begin{array}{c} \text{gà} \\ \text{T} \quad \text{T} \end{array} \right]$$

3. PARADIGMATIC REDUCTION (4.4; pr 5, 10, 11, 14)

$$(a) \left\{ \begin{array}{l} ny\grave{e} \longrightarrow m\grave{e} \\ w\grave{o} \longrightarrow \grave{e} \\ y\acute{e} \longrightarrow \acute{e} \\ -\acute{a}w\acute{o} \longrightarrow \emptyset \end{array} \right\} / \text{--- (m\acute{e}) PRED}$$

$$(b) \left\{ \begin{array}{l} ny\grave{e} \text{ --- } \grave{h} \\ y\acute{e} \text{ --- } \grave{e} \\ \acute{a}w\acute{o} \text{ --- } \emptyset / \left\{ \begin{array}{l} mi \\ w\acute{o} \end{array} \right\} \text{ --- } \end{array} \right\} / [v (NP) \text{ ---}]$$

$$(c) \left\{ \begin{array}{l} y\acute{e} \longrightarrow \acute{e} \\ w\acute{o} \longrightarrow \emptyset / mia \text{ ---} \\ \acute{a}w\acute{o} \longrightarrow \emptyset / w\acute{o} \text{ ---} \end{array} \right\} / \left[\text{---} \left\{ \begin{array}{l} N \\ V \end{array} \right\} \right]_{NP} \quad \left[\text{---} \right]_{NP}$$

4. PRONOUN PERMUTATION (4.7, 5.4; pr 5, 11, 14)

$$\left[\begin{array}{l} \{ e \} \\ \{ w\acute{o} \} \end{array} \right] \quad \left\{ \begin{array}{l} m\acute{e} \\ n\acute{e} \end{array} \right\}$$

PRO PRO

$$1 \quad 2 \quad \longrightarrow \quad 2 + 1$$

5. WORD BOUNDARY REMOVAL (2.2; pr 6)

$$\# \longrightarrow + / \left[\begin{array}{l} \bullet \\ +PRO \end{array} \right] \text{--- (T) V}$$

6. HABITUAL FORMATIVE REDUCTION (2.2)

$$n\acute{a}_1 \longrightarrow \acute{a} / [v \# \text{---} \# NP (CP)]$$

7. IMPERATIVE TONE LOWERING (mentioned 5.2; pr 8)

8. LOWERING OF /vá/ (mentioned 5.2; pr 9)

9. IMPERATIVE DELETION (5.4)

$n'é + è \rightarrow \emptyset$

10. PARTICLE DELETION (4.7, 5.4)

$\left\{ \begin{array}{l} mé \\ né \end{array} \right\} \rightarrow \emptyset / ni \text{ —}$

11. SENTENCE-INTERNAL PRONOUN ALTERNATION (4.4)

$\left\{ \begin{array}{l} è \rightarrow n'è \\ é \rightarrow w'è \end{array} \right\} / \left\{ \begin{array}{l} \text{— } ná_3 \\ [X \text{ — PRED }] \\ S \qquad \qquad \qquad S \end{array} \right\}$

Cond. $X \neq \emptyset$ or C_a or /mé/

12. TENSE REDUCTION (2.2, 5.4)

$\left\{ \begin{array}{l} ná_3 \rightarrow á \\ áà \rightarrow à \end{array} \right\} / \text{PRO —}$

13. PRE-AFFIX PRONOUN REDUCTION (4.4, 4.7)

$\left\{ \begin{array}{l} nyè \rightarrow è \\ w'è \rightarrow \emptyset \end{array} \right\} / \text{— } \left\{ \begin{array}{l} g'é \\ n'í \end{array} \right\}$

14. /mé/ TONE SWITCH (4.4, 4.7)

$m'é \rightarrow m'è / \text{— } è$
 $m'è \rightarrow m'é / \text{— } á$

15. /gà/ TONE RAISING (2.3)

$$g\grave{a} \longrightarrow g\acute{a} \ / \ \begin{matrix} [a] \\ T \quad T \end{matrix} \text{ ---}$$

16. FUTURE TENSE TONE RAISING (1.6)

$$\grave{a} \longrightarrow \acute{a} \ / \ \begin{matrix} \text{-High Tone} \\ T \end{matrix} \left[\text{---} \right] \begin{matrix} \text{-High Tone} \\ T \end{matrix}$$

 PHONOLOGY

1. ASSIMILATION (1.6; pr 2)

$$e \longrightarrow a \ / \ \text{---} a$$

2. DEGEMINATION (1.6)

$$V_1 V_2 \longrightarrow V_1 \quad \text{where } V_1 = V_2 \text{ in all features}$$

3. Comments. Section two has presented the transformational rules discussed earlier in this study in three components, following the division outlined on p. 6:

T_j : the set of syntactic transformations, of which the output is termed the lexical representation;

T_k : the set of morphological transformations, of which the output is termed the phonological representation;

T_1 : the set of phonological rules, the output of which is called the phonetic representation.

If this division were capable of justification on independent grounds, several interesting hypotheses about the nature and relation of these components would become possible, including at least the following:

- (a) T_j , T_k , and T_1 can be ordered in such a way that (without introducing any artificiality into the analysis) all members of T_j precede all members of T_k , and all members of T_k precede all members of T_1 .
- (b) output representations of T_j and T_k are given in terms of the same vocabulary, which we term systematic phonemes. Phonetic features which cannot distinguish formatives at these two levels are only introduced by the rules of T_1 .
- (c) the rules of T_j are members of the set of universal transformations (see note 3, p. 8), while the rules of T_k are language-particular.

We may expect to find marginal cases of exceptions to all these hypotheses. To the extent that they are marginal, however, it remains possible in theory to reformulate the hypotheses so as to exclude them, without losing their generality.

We therefore must ask whether it is possible to form an independent definition of the crucial notion 'morphological rule'. An adequate theory of grammar must give this notion careful attention; to date, however, very little investigation has been carried out in this direction. A satisfactory definition of 'mor-

phological rule' must meet two conditions: (i) it must clearly distinguish between a morphological rule and a syntactic rule; (ii) it must clearly distinguish between a morphological rule and a phonological rule. Failing these, any attempt to offer support for hypotheses such as (a)-(c), above, or to make any other claims about the role of a morphological component in grammars would be largely vacuous, as rules could be shuffled into one component or another as the needs of a given hypothesis demanded.¹ We shall be unable, here, to meet the above two conditions in any rigorous way. We can, however, present several suggestions which would appear to be adequate for Ewe, and which may be able to make an eventual contribution to a general theory of morphology in grammar.

A proposal designed to satisfy the first of the above conditions has been presented by Kiefer. He suggests that 'a rule is termed morphological if it utilizes only such (lexical and syntactic) information that is contained in the specification of the lexical formative it refers to' (Kiefer 1970:52). While this definition might prove adequate for a language like English, it is not satisfactory for Ewe, where morphological rules are stated on environments beyond the word level in most cases. If we adopted it, it would have the result of excluding nearly all the rules we have considered morphological from the morphological component and placing them in the syntax. We propose as an alternative, then, for the case of Ewe, that morphological rules will fall into one of three types: (i) rules carrying out operations (replacing, modifying, deleting) on strings of segments not containing word boundaries; (ii) rules giving

phonological spellings to abstract formatives; and (iii) perhaps certain permutation rules. We relax the word-level constraint on environments.² In general, syntactic rules would not appear to have these properties, although some deletion rules are apparently best handled in the syntax, especially where independent (non-affixed) forms are concerned; this remains an area of ambiguity in our formulation.

The second condition may be satisfied, for present purposes, by adopting the definition of 'phonological rule' given by Chomsky and Halle (1968.390-99). The consequence of this is that the large part of the rules we have considered in this study are classed as non-phonological, therefore as either syntactic or morphological. In rough terms, Chomsky and Halle require that no phonological rule may mention particular lexical items, nor may they mention any category symbols internally in the structural description of a rule, though these may appear either in the form of features distributed across the phonological segments of a formative by a proposed 'copying' convention (p. 374), or as a label on either (or both) of the brackets enclosing a rule. Their definition has the effect of establishing a class of grammatically unconditioned rules affecting phonetic form, eventually subject to possibly universal marking conventions. Inspection of the rules we have listed in our morphological component will show that they do not meet this definition. Therefore, it seems that we have approximate criteria for establishing the upper and lower boundaries of the morphological component.

Such criteria allow us to approach the problem of giving an independent definition of the form of the rules contained in each of the components T_j , T_k , T_l , and give us a theoretical basis for proposing hypotheses (a) - (c). The rules we have discussed in this study and their mutual relationships lend support to all of them. It is not at this point possible to confirm the universal status of the rules of T_j , but we can find parallels for most of them in other (not necessarily related) languages. For instance, we have noted that a rule similar to Shifting has been described for Akan (Boadi 1966), while part A of Restructuring appears to belong to Adangme (see data presented in Kropp 1970). Even such a minor rule as that of object-preposing (see note 7, p. 54) is fairly widespread in West African languages. On the other hand, the lower-level rules which we have included in our syntax, those involving the genitive forms, are possibly particular to Ewe.

These criteria also permit us to make some general observations about the morphological structure of Ewe. One of its outstanding characteristics is its extreme economy of forms. We find very frequently that a given form serves a variety of functions in the grammar: thus, the form /lè/ may be a main verb, an auxiliary verb, or a 'verbid'. In general, the membership of the grammatical categories preverb, auxiliary verb, and verb is constituted by forms which may elsewhere serve as main verbs (though a few exceptions have been noted). There is some overlap, as well, between the categories 'noun' and 'postpositional noun'.

Further remarks about the morphological economy of

Ewe are possible on the basis of a typology of the morphological rules involved. We find four general types:

- (i) suppletion rules having the effect of replacing one formative with a quite different one, in terms of its phonology:

né ---> gà

mé ---> ná

é ---> wò

A particular case is that of deletion:

$$\left\{ \begin{array}{l} \text{mé} \\ \text{né} \end{array} \right\} \text{--->} \emptyset$$

- (ii) modification rules, which modify the feature composition of a formative without carrying out thoroughgoing changes:

nyè ---> mè

gà ---> gá

mé ---> mè

A particular case is that of deletion of a single segment:

míáwó ---> mí

yé ---> é

- (iii) a permutation rule in which two formatives are inverted:

wó mé ---> mé wó

- (iv) spelling rules, assigning a phonological interpretation to an abstract formative:

RED tsó ---> tsó tsó

The only rule of this kind we have found in Anlo, Reduplication, has not been discussed in the text. It replaces the abstract form RED with a copy of all features (except nasality) of the verb stem to its right; eventually, an internal liquid is deleted:

RED xlẽ ---> xè xlẽ

We believe that the distinction between rules of type (i) and (ii), which may appear to be more a matter of degree than kind, is a significant one. We have seen that the rules assigning (paradigmatic) alternants are reduction rules, therefore to be classed as type (ii). There is no reason to expect that this should be the case; if there were no basic distinction between suppletion and modification, we should have expected to find paradigmatic alternation to be 'suppletive' in some cases, 'reductive' in others, quite at random. A more general consideration is that if we failed to make this distinction, we would be in effect predicting that suppletion is a highly marked process, carrying out extremely complex operations on formatives (phonological matrices), rather than replacing one with another. We should then expect such rules to be relatively rare in grammars, while in fact they are very common.

A further reason for distinguishing between suppletion and modification lies in the fact that rules of the former type tend to obey a constraint which is quite in conformance with the general tendency toward conservatism in Ewe grammatical forms. This is that the non-basic grammatical formatives introduced by suppletion (but not by modification) are nearly always

identical to the basic form of some other grammatical category (or else zero). Thus, if we represent the grammatical formatives which constitute the terminal vocabulary of lexical representations (including zero) as GV_1 , and those constituting the terminal vocabulary of phonological representations as GV_p , we have the relation:

$$(1) \quad GV_p \subset GV_1$$

(GV_p is properly included in GV_1). Equivalently, we might say that suppletion in Ewe tends to be restricted to substituting phonological matrices already constituted elsewhere in lexical representations. This may be seen from the following table of forms:

	<u>as basic form</u>	<u>as derived form</u>
né	imperative	----
ná	habitual, progressive, subjunctive	imperative, negative
gà	repetitive preverb	imperative
∅	unmarked tense/aspect	negative, imperative
wò	second p. s. pronoun	3. p. s. pronoun
nè	----	2. p. s. pronoun
yé	3. p. s. pronoun	----
mé	negative	----
nò	auxiliary verb (past progressive)	alternant of /lè/

(the last rule was not given in the text: it replaces /lè/ with /nò/ in reduplicative forms. This is the only case of suppletion of a lexical item known to us in Ewe). Relation (1) could be imposed as a general constraint on derivations in Ewe, were it not for the

fact that /nè/, exceptionally, is not attested as a basic grammatical formative.³

Reduplication, the only spelling rule observed in Ewe, is another instance of this tendency toward conservatism: all the forms introduced by it will, by the very form of the rule, be already constituted in lexical representations. Thus, due to widespread category overlap and the conservatism of the morphological rules, very few grammatical formatives in Ewe are uniquely identifiable from their surface form alone. This creates the high degree of nonredundancy in the language and the frequency of ambiguous structures.

These observations lead us to reconsider the traditional classification of Ewe as a so-called 'isolating' language (see references, p. 31). We have seen that typologically, the Ewe verbal system is very much like that of English, the chief differences being that tense is optional in Ewe and obligatory in English (Chomsky 1965:107), and that English morphemic alternation is lexically determined, requiring only information internal to the stem-affix group, while in Ewe it is syntactically determined in many cases, depending on information outside the stem-affix group. As far as the type of rules is concerned, English seems to have about the same type as Ewe, in particular suppletion (go, went), modification (swim, swam), and spelling (past participle: -ed with bake, -en with take, etc.).

The fact that Ewe has so long been considered an 'isolating' language may be explained in large part by the high degree of category overlap and morphological

conservatism we have observed. The traditional analyses of the first phase of linguistic investigation (see Chapter 1.4), failing to give these factors proper recognition, were unable to make such essential distinctions as that between main verbs, preverbs, auxiliary verbs and 'verbids', and thus assumed that functions such as the latter three were simply cases of main verbs being used in a vaguely extended way (see for instance Westermann 1930.129-30). In general the analyses of this period were weakened by their consistent habit of explaining one form in terms of another phonologically similar, but grammatically unrelated one (see for instance note 7, p. 171 or Schroeder 1936. 55-57). They failed to recognize that underlying the apparent arbitrariness of the surface form of sentences there are systematic relationships which allow one to reconstruct regular underlying representations in which grammatical affixes, occurring in a largely determined sequence, modify lexical heads. A few morphological rules account for the surface anomalies.

The problem lies not only in the weakness of earlier models of linguistic analysis but also in the fact that the traditional typology has usually confined itself to classifying superficial properties of linguistic structure. The criteria chosen are quite arbitrary and lead to few, if any, further insights into the properties of language. This problem has been commented on by Fillmore, who after presenting certain recommendations of his own, added: 'It is important to remember that all of these typological criteria are based on superficial processes, and that there are no particularly good

reasons for believing a priori that there will be much coincidence in the ways in which the different criteria sort out the world's languages' (Fillmore 1968.52). What he says of his own proposals ~~are~~ is equally true of the traditional ones. For this reason I feel that the use of terms such as 'isolating', 'agglutinative', and so forth, while giving us a certain insight into surface characteristics, does not permit a firm basis for typological investigation, particularly in its essential task of singling out those properties of language which are basic and from which others derive as a consequence.

Certain recent approaches to typological classification offer the possibility of overcoming these problems. One suggestion⁴ is that language typologies might be based on the type of analytical problem that each language presents, or more specifically on the type of model they require for their analysis. These models may themselves be capable of arrangement in hierarchies according to the generative power of each one.⁵ In the case of Ewe, it would appear that a model of relatively low power is required, approximately equivalent to the 'Item and Arrangement' model and containing rules which establish a relation between a set of discrete phonologically specified signals constituting the terminal vocabulary of lexical representations, and another set of similar signals forming the terminal vocabulary of phonological representations. However, 'spelling' rules (our type (iv)) such as reduplication lie beyond the power of this model insofar as their input contains abstract constructs for which no specific phonological interpretation is motivated at the level of lexical representation.

BOOKING

APPENDICES

TEXTILE AND STERIOD

APPENDIX A:

THE AFFIXES /m/ AND /gé/

There are certain constructions involving the affixes /m/ and /gé/ which bear a superficial resemblance to the aspect constructions described in Chapter 2.4, but which may easily be distinguished upon closer examination.

(i) In some cases, the underlying auxiliary verb /lè/ has been deleted from an idiom by the general rule mentioned in Chapter 2.4 (p. 64). For example:

mě-nyá (lè) wò-wò-m ò 'It doesn't know doing (= nothing can be done with it)'

However, a native speaker can usually supply the missing /lè/. Furthermore, in other environments the auxiliary verb /nò/ is possible or obligatory:

mé-nyá nò wò-wò-m ò 'Nothing could be done with it'

True auxiliary constructions do not permit the insertion of /lè/ or /nò/:

*mè-dè { lè } kù-kú-gé
 { nò }

*me-tsó { lè } dò wó-m
 { nò }

(ii) In other cases, superficially similar constructions may be distinguished by the fact that the bound preverb /hé/ may be introduced, followed by /lè/, with no change of meaning. This suggests that /lè/ occurs in the underlying structure:

é-li (hé-lè) dò wó-m 'He remains (and is) working'

é-gbugbo (hé-lè) hà dyl-m 'He returned (and is) singing'

These are serial constructions, deriving in this case from deep-structure coordinated sentences. The auxiliary verbs do not pass this test, as introduction of /hé lè/ results in a complete change of meaning:

mè-nò dò wó-m 'I was working'

me-no hé-lè dò wó-m 'I remained and was working'

mè-dè kù-kú-gé 'I nearly died'

me-de hé-lè kù-kú-gé 'I arrived and am going to die'

(iii) Clauses of purpose formed with the complementizer /bé/ 'in order that' have paraphrases in constructions with /gé/, particularly frequent when the main verb is a verb of location or motion. These verbs are always main verbs in such constructions, however, as they may be followed by locative objects:

{ 'é-vá -nú srǒ-gé } 'He came in order to study'
 { 'é-vǎ bé wò-à-srǒ -nú }

cf.:

'é-vá àpé me nú srǒ-gé 'He came home in order to study'

In contrast, if locative objects are placed after any of the auxiliary verbs, they become full verbs and the sentences containing them change in meaning:

mè(-lè) dǒ wǒ-gé 'I'm going to work'

mè-lè àpé mè dǒ wǒ-gé 'I'm at home in order to work'

The new sentences have paraphrases containing purpose clauses formed with /bé/:

mè-lè àpé me bé má-wò dǒ 'I'm at home in order to work'

Furthermore, /lè/ (as a main verb) may no longer be deleted:

*mè àpé me dǒ wǒ-gé

APPENDIX B:

THE STATUS OF THE REDUCED PRONOUNS

We have observed certain properties of the weak or reduced forms of the pronouns suggesting that they should be treated as phonological clitics:

(i) Phonologically, they stand in relation to the verb with which they are associated in much the same way as morphological affixes are related to their stems. For instance, we have seen (p. 12) that the clitic object /è/ causes a preceding /a/ to become /e/:

ná-è → [néè] 'give it'

The same rule involved here applies in the case of an /a/ in a noun stem followed by the noun derivational affix /é/:

tó -gà -é → [tógè·] 'earring'
 ear metal

Examples such as these show that the clitic pronouns behave phonologically just as if they were affixes. Such rules do not apply across word boundaries:

àgbà é → [àgbàè] 'It's a load'
 load

(where /é/ is the topicalizing particle).

(ii) Object forms appear to obey certain constraints on surface structure sequence. Thus, for instance, pronoun-pronoun object sequences are prohibited, though two object pronouns may occur provided they are separated by another element (see Chapter 4.8). Constraints of this sort seem to be characteristic of clitic forms in languages that have them. Perlmutter (1971) has suggested a possible explanation: there seems to be a valid generalization that the order of morphemes within the word tends to be fixed, in all languages. Since clitics (by definition) form a single word with the stem to which they are bound, the fact that they obey certain surface order constraints may be a special case of this generalization.

In Chapter 2.2 we proposed that the clitic status of these items was to be accounted for by a phonological readjustment rule, Word Boundary Removal, which removes any word boundaries (#) intervening between these items and the word they depend on. This approach accounts satisfactorily for the set of facts (i) and (ii), above, as it creates representations in which the clitics form a single phonological word with another word.

We have chosen, then, a phonological analysis of the clitics in Ewe. But this approach is not the only possible one; in fact, for many West African languages a syntactic derivation of clitic forms seems more appropriate. This is particularly so in the case of languages with noun classes. Here, in typical cases, we find that the verb requires a clitic concord-form which agrees in number, person and noun class with subject (and sometimes object) NP's; it may also carry tense indications. In Avatime, for instance, we find examples such as the following (Ford 1971):

ki-ku ki-li ni e-kplɔ̃-no aba
yam be table top

'There is a yam on the table'

(we have omitted tonal indications). Here, /ni/ is a locative preposition, and /ki/ is the class prefix. Characteristically, the verbal concord prefix is required even when the subject is present as a noun or pronoun.

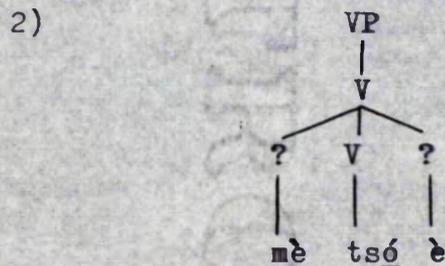
In Ewe, as we have seen, subject nouns and subject clitic forms do not usually cooccur in a simplex sentence, and object pronouns and object clitics never do. Thus, to propose a syntactic derivation of clitic forms would require the setting up of largely unattested underlying forms either by PS rules or transformational rules, the effects of which would have to be largely undone by other rules eliminating unwanted, redundant forms. These objections are not in themselves conclusive, however; Kayne (forthcoming) has proposed a syntactic analysis of clitic forms in French which requires just such a transformational apparatus, and has shown that

this analysis is at least as highly-valued as an analysis deriving all clitic forms from underlying NPs.¹

We shall support our claim that the phonological analysis of Ewe clitics is the correct one by showing that the syntactic analysis leads us to a set of highly undesirable conclusions. Due to the variety of possible approaches, it will be possible here to investigate only one proposal, one that is readily suggested by data available from certain other West African languages. This would consist of claiming that at some point in the derivation of a form such as

- 1) me-tsó-è 'I took it'

we find the constituent structure:



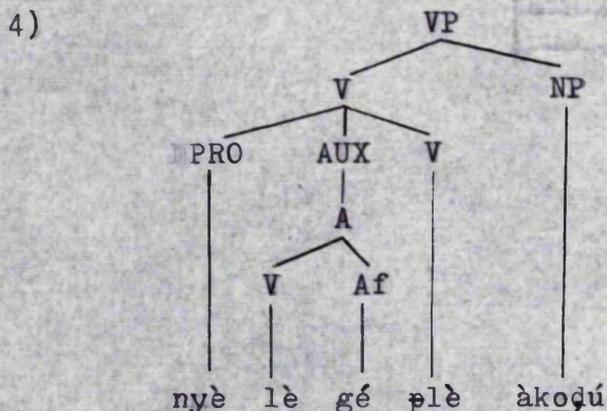
in which the clitic subject and object pronouns are found Chomsky-adjoined to the verb /tsó/ to form a larger verb.

Let us explore some of the consequences of this position. One is that the members of AUX must themselves be considered syntactic clitics, as they occur in both deep and surface order between a subject clitic and the verb:

- 3) mà-gá-tsó-è 'I shall take it again'

In particular, the aspect markers /lè gé/, etc., will have to be analysed as clitic forms.

Structures like (2) have only two possible sources in our grammar: either they are directly generated as deep structures, or they are derived by one or more transformational rules of clitic placement. Let us make the first assumption: suppose they are deep structures. The grammar will have some PS rule such as $V \rightarrow \text{PRO (AUX) V (PRO)}$, generating deep structures such as the following:



underlying the sentence:

5) me(-le) akoḍú plè-gé 'I'm going to buy banana(s)'

In order to derive (5) from (4), we know that the rule of Restructuring (among others) must apply. But this rule is defined upon NPs which are also VPs; nothing in (4) meets this description, and it is difficult to see how any 'grafting' rule could bring about the desired structure. Furthermore, we know that the sequence /àkoḍú plè-gé/ in (5) is a single constituent, as it may be topicalized (p. 103). In order to account for this, Restructuring would have to perform an operation far exceeding the properties of a transformational rule; the entire phrase-marker (4) would have to be rebuilt in such a way that /àkoḍú plè-gé/ is a single NP after the structural change is carried

out. This shows that (2) and (4) cannot be base structures, but (still following the hypothesis) must be derived structures, and that the rules that form them must apply after Restructuring has been carried out.

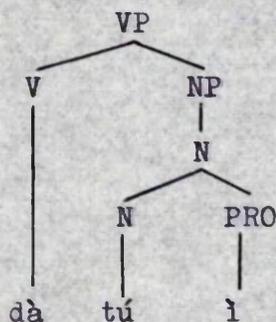
This consequence, too, has certain unacceptable results. Any proposed clitic placement rule will have to take into account the fact that for ditransitive verbs, a second pronoun object is clitic to the noun object preceding it. We may see this from the fact that it undergoes (and causes) the same set of vowel changes as it does when clitic to a verb:

mè-dà tú-ì 'I shot him'
shoot gun

*mè-dà tú è

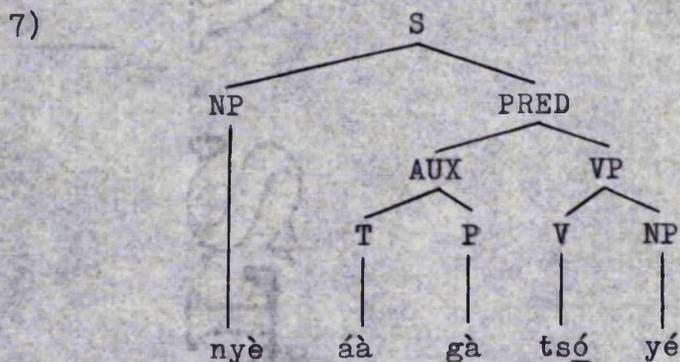
The clitic placement rule will therefore not only have to adjoin clitics to verbs, but also to nouns, raising the question of just what the derived structure would be. For example, there is no syntactic evidence in Ewe for hypothetical derived structures such as:

6)



as structures consisting of nouns followed by pronouns do not behave as single nouns in regard to any known syntactic rules.

The members of the auxiliary complex raise further problems. However these elements are to be accounted for in deep structure, they will intercede between the subject and the verb at the time the clitic placement rule(s) apply. Our grammar assigns (3) the deep structure:



The proposed clitic placement rule (which must follow pronoun reduction) must, as we have seen, be defined upon all members of AUX as well as upon the subject pronoun. Thus, it must be extended to a heterogeneous class of items having no other property in common, nor required in the statement of any other rule. This makes the rule look suspiciously artificial.

Finally, let us consider the formal properties required by the proposed clitic placement rule. Though it reassigns constituent structure, its effect on the order of elements is null; it will always apply 'vacuously', effecting no overt change on the objects on which it is defined. The fact that it must rebuild phrase-markers takes it well beyond its initial purpose, which was to account for certain phonological properties and a surface constraint. The use of a restructuring transformation could be justified if it could be shown that there were transformations following clitic place-

ment with respect to which the newly-created phonological words do behave as verbs; there appears, however, to be no evidence in favour of such a derived structure. These considerations lead us to the conclusion that the proposed rule is far too complex and unmotivated to compete seriously with the alternative analysis we have proposed, involving the single rule of Word Boundary Deletion.²

APPENDIX C:

AN ANLO TEXT

The legend which follows, told to us by Mr. Godfred Blebu of Anyako, concerns a tróò or ancestral spirit who is said to inhabit Kleve, a nearby island of the lagoon shore.

The Story of Father Tsali

tsalí a / é-ḡe yě wó d̀̀kàví wó gbè ḡeká /
Tsali, he took out his intestines one day

hé-siá ḡé gbè dyí. / f̀̀fó-á akplomada tró zù
and dried them on the grass. His father Akplomada turned

à̀̀kò / vá p̀̀ d̀̀kàví á wó / h́́-dzo le ya me
into a kite, seized the intestines, and flew into

/ hé yì-m. / kě wò-le ya me nénémá a
the sky and was going. So as he was in the sky like

/ tsalí á kpó-é dũú. / kò sùsù á vá ná-è /
this, Tsali stared after him. An idea came to him,

kò yí hã̀ gà-tyì à̀̀lìmà / tró zu yalí /
and he too used magic, turned into a strong wind

h́́-le ngo ná à̀̀kò à / wó-h́́ yì-m / wó yì-m /
and preceded the kite going going

lè à̀̀vè wó d̀̀mè / lè à̀̀tyí wó tã̀mè / h́́ yì-m /
among the forests over the trees going

b̀̀ kékékékékékékéké. / kò à / ké é-le ngo ná-e
a long, long time. So he was in front of him

é kpló-m. / é-zu yalí / kpló-m /
leading him. He turned into a strong wind leading him

b̀̀ kékékéké. / éhi tsalí kpó bé / yè-wó d̀̀ gò
a long time. When Tsali saw that they had come out

àvè wó dòmè / hě-vá ǫó dzògbè / àfí hi ké
of the forests and arrived at a desert where

àtyí áǫéké ǫéké mé-gà-lè ò / négbé tagba ǫèǫé kò à /
there were no more trees at all, but only the plain,

é-tró ǫókúí zù èbùtyí kókó áǫé ǫé dzògbè à. /
he turned himself into a tall silk-cotton tree in the desert.

ké éhì àbàkò kpǫ bé / èbùtyí kókó áǫé é nyé éhì
So when the kite saw that there was a tall silk-cotton

lè àfí a kò à / ǫèǫì té yí háá nú. / kò kogléé hě-dzo
tree there, he felt tired. So he lit

ǫé bùtyí á dyí / tsó dǫkàví á háá da ǫé é dyí. /
on the tree and set the intestines too on it.

éhì wò-dzo ǫé é dyí alé tètì kò /
As soon as he had flown onto it like this,

yá kò bùtyí lǫ wó lé bàkò à. / énumáke wò-lé-e
the tree branches seized the kite. No sooner had it

nénémá kò à / yá kò wó amè vè à kátáá wó-tró zù amè/
seized him like that than both of them turned into men

hě-vá kame te-gé. / àbàkò à / àló akplomada /
and started to struggle. The kite, or Akplomada,

gbò-gblò-m né tsalí^á bé / né-ǫè àsí ye nú /
was saying to Tsali that he must let him go,

né-tásí yè. / kò tsalí á lé-è /
he must let him alone. But Tsali held him

xo yé wó dǫkàví á sí ' / hě-tsó gà-dé é tepé.
and got his intestines back from him and put them back

/ kě ěhì wò-wò-e alé hia vò a /
 in place. Then when he had done this,

ě-vá ðè àsí fòfó-á nú / hě-gblo ná-ě bé /
 he finally let go of his father and told him:

yé dyì yè / gàké ye-kpe dyí / wò-à-sè-è.
 you begot me, but I am the worthier (that he should

hear it).

NOTES

0: Introduction

1. (p. 4) The theory outlined here is approximately that known as (extended) standard theory, as developed in such works as Katz and Postal 1964, Chomsky 1965, Ross 1967, Chomsky and Halle 1968, Bierwisch 1970, Chomsky 1971, and in many works referred to therein; some useful introductory expositions include Ruwet 1967, Chomsky 1967, and Lyons 1968. In our version, we have imposed no ordering on the PS rules other than that implicit in their form, and we have permitted no features among the terminal symbols of the base; other characteristics will be mentioned as necessary.
2. (p. 8) See in particular Ross 1967, Emonds 1969, Perlmutter 1971, Chomsky (to appear b).
3. (p. 8) Bach 1965, 1971a, 1971b. Bach's view is given some support by our results, as nearly all the syntactic transformations described in the text are formally parallel to transformations found in other, often non-related languages: Extraposition, Extraction, Shifting, Pronominalization, Affix-movement, Verbid deletion (cf. Preposition deletion),

/bé/-deletion (cf. Eng. that-deletion), Restructuring, not to mention many others that did not come under consideration (Relative clause formation, Specific question movement, Extra-position from NP, Topicalization, Adverbial clause fronting, and so forth).

4. (p. 8) See especially Jackendoff 1969, Chomsky (to appear a), and many papers by Fillmore, Lakoff, McCawley, and Postal.

1: The Anlo dialect: a brief sketch.

1. (p. 16) Ewe speakers themselves usually reserve the term 'Ewe' to refer to the Western and Central dialect groups only. Westermann defended the inclusion of the Eastern dialects under the comprehensive term 'Ewe' for the following reasons:

The Eastern dialects, perhaps most of all Gũ, show in their grammatical forms, less in their lexical stock, strong deviations from Gẽ and even more from the Western dialects, so that mutual comprehension is excluded. However, the mutual relatedness of all dialects is so clear that it would not be right to fail to acknowledge them and point them out.

This is also why the earlier specialists in the language included them all under the uniform name Ewe. [Here Westermann cites various authorities from Schlegel (1857) onwards.]

Since the unity of this linguistic group is incontestable, and Western Ewe ('Ewe' in the narrow sense) has been the most thoroughly investigated in all areas of the language and possesses as a single dialect a true native literature, and consequently has become the

best-known dialect in Europe - and indeed by the name Ewe - I propose, in spite of the greater geographical extension of F \ddot{O} , and with full recognition of the great independence of the individual groups, to follow my predecessors and retain the name Ewe for the entire linguistic area.

(Westermann 1954.XI)

This decision has been followed, notably, by Greenberg (1966). But how valid is the argument? What Westermann is saying, reduced to its essentials, is that the dialect group including Ewe proper, F \ddot{O} , G \ddot{u} , etc., should be known by the name of that member of the group which has been most studied and is therefore most widely known in Europe. The same line of reasoning could be used to propose that Spanish and Portuguese be henceforth known as 'French'! We feel that in the present case the distinctions drawn by Ewe and F \ddot{O} speakers themselves, and which correspond to authentic dialect cleavages, should overrule the weight of nineteenth-century tradition. In the present study, therefore, we use the term 'Ewe' to refer to Westermann's Western and Central dialects only.

2. (p. 16) For some discussion of both these points in regard to Ewe see Ford (to appear).
3. (p. 19) We have taken these dates from Nukunya 1969.162. For more on the expansion of missionary activities in this area see Schlatter 1916.133-9, Debrunner 1965.63-87.
4. (p. 19) Debrunner, op. cit.

5. (p. 20) J. K. Victor, who sat on the boards of both the Bremen Mission and the German Colonial Council, outlined a programme for developing colonial trade in the following terms: 'We must open up the country by railways and provide the negroes with openings for selling their products; we must raise, teach, and convert them and in return they must supply us in the course of the years with millions and thousands of millions' worth of raw materials which our industry needs to make it independent of foreign countries' (quoted by Debrunner, op. cit. p. 116, who adds that Victor's programme was 'sensible' and 'remarkable' in the context of the times).
6. (p. 20) For a recent study of the extension of colonial authority over Anlo at this time see Amenumey 1968.
7. (p. 21) Nukunya 1969.3. note that the figure of 5,000 given for Anlo by Westermann and Bryan (1952) is an error; Keta alone has a population of 16,000. The reader is referred to Nukunya (Chapter 1) for more extensive discussion of Anlo as a geo-political unit.
8. (p. 22) The English version is considerably abridged, omitting many passages of linguistic interest, including an important section on sound correspondences between Ewe and other 'Kwa' languages (17-36), and a comparative study of the Central and Eastern dialects (135-141). The translation is often misleading, and the section on the verbal system (p. 74 ff. in the English version) is particularly poorly handled.

9. (p. 29) Some comments are in order. The placement of [ɖ, n, l] in the denti-alveolar series is based on palatography by Duthie, who finds that Anlo differs in this respect from the Interior dialects, where they are coronal phones. The distinction between [d] and [ɖ] is based upon the configuration of the active articulator: blade of the tongue for [d], tip of the tongue for [ɖ], which may be represented by the feature 'distributed' (Chomsky and Halle 1968.313). Both Westermann and Duthie agree that [ɖ, n, l] share the same point of articulation, for several dialects tested (Westermann 1917.13, Duthie 1967.4).

[w] and [g] are in complementary distribution, and are probably represented as a labio-velar (or labial-velar) sonorant in underlying representation (Duthie, op. cit. and Stahlke, in preparation), though Stewart (1972) has claimed that [g] is the lenis counterpart of [h], with which it shares all other features.

The classification of [h] and [x] has long been a matter of controversy. Westermann, op. cit., considered them velar fricatives, but noted (p. 31) that 'it is doubtful whether h belongs with the velar sounds...h never gives a velar impression in palatography'. Later, Westermann and Ward (1933.84-6) class [x] as a voiceless velar fricative, [h] as a voiced glottal fricative. Duthie (op. cit.) agrees with this analysis, while Berry, retaining this classification of [x], considers [h] a pharyngeal fricative (1951.15). Finally, Stahlke (op. cit.) considers both [x] and [h] to be pharyngeal fricatives, though noting that these

phones are not the same as the Arabic pharyngeals. In sum, it appears that while instrumental evidence clearly shows [h] to be retracted in relation to [k, g], there is as yet no decisive published evidence for the point of articulation of either [h] or [x].

10. (p. 30) Most Anlo speakers make frequent use of the noun prefix /ə/, which we do not consider to form a part of the lexical representation of nouns. It occurs with many nouns lacking the prefix /à/ when:

(i) in citation form:

èd̀̀ 'illness'

(ii) initial in the sentence:

eklo le m̀́ dyí 'A turtle is on the road'

(iii) often, when initial in reduplicative nominals:

èd̀̀lélé 'illness'

and occasionally in the interior of sentences as well. The distribution of this prefix in Anlo is similar in most respects to that in the related Gẽ dialect; see Schröder 1936.25-27.

11. (p. 37) Hypotheses (i) and (ii), but not (iii), require that German be analysed as a SVO language, or at least not as a SOV language. For the original statements of these hypotheses see Bach 1971a, Koss 1970, and Greenberg 1963b, respectively.

2: The Auxiliary System: Tense and Aspect

1. (p. 41) Here as elsewhere we simplify our phrase-markers (branching trees) by eliminating any non-branching nodes which are not relevant to the discussion. Thus, in the present case we have omitted the nodes S^0 and PRED. All phrase-markers for surface strings show surface (phonetic) tone; other phrase-markers give underlying tone.

The mid tone preceding the initial consonant in -mó á is the 'tonal prefix' which alternates with the noun prefix /è/ (see Schroeder 1936.26, Stahlke 1971). It assimilates to the preceding vowel in all its non-tonal features.

2. (p. 42) We shall see, in fact, that there are no forms referring uniquely to notions of 'time' in Anlo, and therefore no forms which can properly be called 'tense', although time reference is implicit in many of the members of AUX and in other forms (verbs, adverbs) as well. Cf. Agblemagnon (1969.55): '... 'tense' does not appear simply to mark a past, present, or future action but rather to express the very intent of the speaker.'
3. (p. 43) It is interesting to note that the feature /-Punctual/, which appears to be only of semantic relevance in Ewe, has syntactic consequences in Akan: only 'non-punctual' verbs may occur with unmarked tense (as Akan has an overtly marked past tense). The term frequently used by Akan scholars for our 'non-punctual' is 'continuative'; see Schachter and Fromkin 1968.122-23 and Boadi 1966.21-2, who observes that 'continuative verbs express ac-

tions that bear no relation to a particular point in time either in the past or future'. This definition is not entirely valid for Ewe; thus /gblɔ/ 'say' is a 'non-punctual' verb but does not conform to that description.

4. (p. 46) In our exposition we make no attempt to separate syntactic from morphological rules; in Chapter 7, we shall show that the majority (perhaps all) of the syntactic rules considered here can be ordered before the morphological rules, lending support to our view (see rules T_k of the Introduction) that morphological rules form a separate component.
5. (p. 47) See Chapter 3.3 for a discussion of rule exception features.
6. (p. 50) This is not the case in Fɔ̃, where all members of T - including the habitual formative /nɔ/ - occur to the left of the verb stem:

esa	'he sells/sold'
enosa	'he sells (habitually)'
ekosa	'he sold'
enasa	'he will sell'

(Westermann 1907.139)
7. (p. 54) This preposing rule is mentioned and exemplified in Ansre 1966b.161; for further examples with /xà/ see Westermann 1954.326. A parallel rule exists in several other West African languages; for the case in Avatime see Ford 1971.
8. (p. 59) In the dialect recorded by Ansre (1966b), the form /nɔ̃...gé/ is also found, with and without accompanying tense formatives:

wó à nò yìyì gé

'They would be going' (168)

nyrué nò àgblè yì gé háfí miédè

'Uncle was going to go to farm when we got there'

(169)

9. (p. 66) For further discussion of these points see especially Chomsky 1965:95-106, 120-3; 1967; 1971 note 3.

10. (p. 67) In fact an alternate sequence with /àblá/ and /àkplé/ changing places, giving us a sequence meaning 'Porridge cooked Ablá', would be possible in the simplified model we are using, which does not contain 'selectional restriction features'.

11. (p. 72) Curiously, this restriction is relaxed in Anlo with the preverb /nyá/, and thus we find:

mà-nyá tókò yì-gé 'Perhaps I'll go to the lagoon'

(where the underlying auxiliary /lè/ has been deleted). This suggests that /nyá/, and perhaps certain other forms that we have assigned to the category P, should be reanalyzed along the lines of Bamgbose's 'preverbal modifying verbs' (Bamgbose 1972).

12. (p. 78) /lè/ has the variant form /nò/ in two other environments, namely:

(i) when it cooccurs with a member of A:

mè gè nò-gé 'I'm going to be in Accra'

*mè gè lè-gé

(ii) in all reduplicated nominals:

àpé me nò-nò 'being at home'

*àpé me le-le

2. (p. 92) This point is stressed by Baëta in her treatment of these forms, which we may call affix-nominals. She writes: 'We may easily make as many new words [= affix nominals - GNC] as we want if we know the origin of the word we want to use.' (Baëta 1962.37). Here, the term 'origin' is to be understood in the sense of 'base form' rather than 'etymological root'.
3. (p. 94) Such representations might be lexical representations, and therefore part of lexical entries, or they might be generated in the base, in which case PS rule 11 would be revised to $N \rightarrow (\text{NEG}) \text{VP} (\text{Af})$, and Af would become a lexical category (note that it is already generated by PS rule 9). The former analysis would be indicated in those cases where a form was semantically irregular, while the latter is suggested by several syntactic facts, e.g. that the embedded NP of the nominal may be pronominalized, may contain demonstratives and relative clauses, etc.
4. (p. 95) And, as Richard Kayne points out to me, any such theory should also be able to explain why there are no exceptions to part A, and no exceptions at all in the case of gerundive nominals.
5. (p. 98) These affix nominals are not necessarily lexical nominals (see note 3).
6. (p. 99) The fact that AVPs and lexical nominals with affixes have the same morphological structure provides our justification for introducing the node Af in our PS rules (rule 9). Without this node, the rule of RED-deletion would have to be compli-

cated, and the parallelism between the two sets of forms would be lost.

7. (p. 103) We have been given examples like the following by Mrs. (Lily Baäta) Mallet, which would seem to provide counter-evidence (my transcription):

(1e) ta-nyé é wò-wò-e dó

'It was on account of me that he did it'

(1è) gbè mé é wò-kú dó

'It was in the bush that he died'

Here, if the optional verbid /lè/ is selected we would appear to have a topicalized 'verbid phrase' (or more precisely, a complement CP; see Chapter 6.2). It is not certain, however, that /lè/ in these examples appears in underlying structures; thus, we find untopicalized forms such as:

'é-wò-e dó ta-nyé' 'He did it on account of me'

where /lè/ does not appear. In other topicalized structures, /lè/ is not possible:

(*1è) kětá é wò-yi dó 'It was Keta he went to'

(*1e) kofí nú é wò-kpé dó 'It was Kofi he helped'

8. (p. 105) See Stahlke 1971.154-5, where the low tone of the first syllable is identified with the 'tonal prefix' in the dialect of Kpando.
9. (p. 106) At least one other described dialect can add a supplementary argument to our list. Smith (1968.297) has shown that certain noun-verb sequences occurring within AVPs acquire, or retain, mid tone in the Interior dialect investigated.

It appears that the necessary condition is that the tonal sequence at the point of application of the rule be non-high, high, non-high; thus:

dòó wù m ---> [dò wù m] 'working'

compare:

dà wù m ---> [dà wù m] 'snake-killing'

We find the same result when the sequence in question is a compound noun:

dèé (à)hà ---> [deháá] 'palm-wine'

Stahlke, while giving these forms a different analysis from Smith's, suggests that a single rule of Compound High Tone Lowering is involved (Stahlke in preparation, Chapter 4). Since this rule will be defined upon nouns, Stahlke concludes that a phrase such as [dò wù] (example above) 'must be syntactically a noun. If so, it seems to be a type of gerundive nominalization...'.

The only investigator who has so far attempted to relate the formal parallels between NPs and AVPs to other aspects of Ewe grammar has been Hartmann, who pointed out (Hartmann 1956.99-108) that to a certain extent, Ewe verbs may be said to behave as nouns:

- (i) nouns and verbs are not differentiated by inflexional means; both categories use the same system for marking grammatical distinctions, the preposing and postposing of particles;
- (ii) pronominal 'prefixes' to the verb (i.e. the reduced subject forms) differ 'unessentially'

from their independent form; thus the relations genitive pronoun / noun, subject pronoun / verb, are not strongly differentiated by the morphology;

(iii) in terms of morphology, therefore, the grammatical relations of genitive modifier / governing noun and subject / main verb tend to become assimilated;

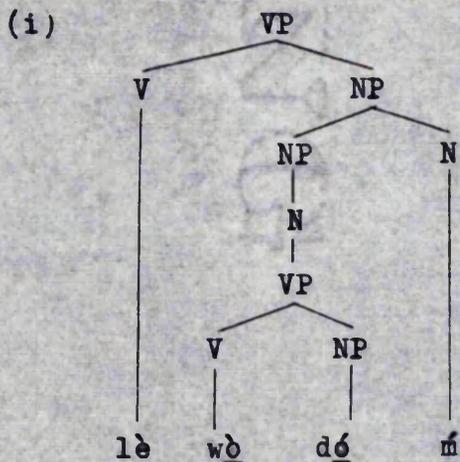
(iv) syntactically, there is additional evidence in favour of such an assimilation, such as the identity of order: genitive modifier precedes governing noun, subject precedes verb.

One might be tempted to draw the conclusion, then, that as a general principle in Ewe, subjects of verbs tend to be formally assimilated to genitive modifiers of nouns. This hypothesis would only be demonstrable, he points out, if 'simple predicates' were clearly characterized as substantives. Here, he observes, the type of predicates employing the aspect markers /m/ and /gé/ can be cited in its favour.

But as Hartmann admits, this hypothesis is clearly too strong: 'Ewe possesses ample means for such a characterization, but seems, in its failure to employ them, to distinguish the ('secondary') substantive from the primary verb' (101). It remains an interesting attempt to find a principled explanation for the ambivalent syntactic behaviour of the AVPs.

10. (p. 114) For some discussion of this phenomenon in certain West African languages, see especially Williamson 1965, Wilson 1971, Ford 1971, Bangboşe 1972.

11. (p. 115) We believe we have given the strongest possible form of the 'Auxiliary-as-Main-Verb' analysis for Ewe. There is another version of it which does not seem altogether implausible, but which proves weaker than the version given above. According to it, the affixes /m, gé/ are to be analyzed (following Westermann) as postpositional nouns. This would give us deep structures such as:



In this view, however, the AVPs would be perfectly isomorphic with structures like (23), and the fact that they do not behave like them is a strong argument against (i). Furthermore, we find that the affixes do not always fall into the same position in sequence as do postpositional nouns. Consider, for instance, the effect of Restructuring on phrasal (discontinuous) verbs:

/dzrà...dó/: 'to save, store'

mè-dzrà gà dó 'I saved money'

mè-yì gà dzà-dzrà dó dyí 'I went on saving money'

mè(-lè) gà dzrà-m dó 'I'm saving money'

* mè(-lè) gà dzrà dó-m

Or again, compare:

dò wó-wò kò dyí m̀è-l̀è 'I'm only working'

*dò wó(-wò) kò m̀ m̀è-l̀è

where /kò/ 'only' is a NP modifier, and should therefore be capable of following the string /dò wó(-wò)/, if analysis (i) were correct.

12. (p. 116) The consequences that may be drawn from argument (iii), pseudo-cleft constructions, are not quite as clear as the others, as there does not yet exist a satisfactory analysis of the pseudo-cleft construction in Ewe, or for that matter in any other language known to us. In one recent analysis (Chomsky 1970.209, for English) the predicate element is characterized as a NP in deep structure.
13. (p. 117) In certain other cases, we may find that if an AVP undergoes a rule defined upon NPs, it yields a structure which is ungrammatical for quite independent reasons. As an example we can take the rule of Extraction (see Chapter 4 for discussion). We know independently that VPs are non-referential, and thus cannot be pronominalized. Now if Extraction is applied to an AVP, it will yield ungrammatical strings like:

(i) *dò wó-m̀ a, kofí ǹè dò wó-m̀

We know that when Extraction applies, the second NP obligatorily undergoes Pronominalization:

kofí a, é-vá kábá 'Kofi, he came quickly'

But as we have said, Pronominalization is not applicable to an AVP. By usual convention, if a string is of such a form that it cannot undergo an obligatory rule, it is marked ungrammatical; thus, strings

like (i) are filtered out.

4: The Pronominal System

1. (p. 123) For some further discussion of 'person' see Lyons 1968, p. 275 ff.
2. (p. 125) We do not consider here the question of 'backward' (left-to-right) Pronominalization.
3. (p. 130) For instance, it is not certain whether shifting with /dè/ is to be accounted for by this rule or by another one. Shifting, as we have presented it, is exemplified in Westermann 1930.62-3 and 144, and a very similar rule has been described for Akan by Boadi (1966).
4. (p. 135) Ansre (1966b) calls attention to the sole constituency condition in the following terms (p. 115): 'Only pro III [i.e. the strong forms - GNC] operates at h[ead] when q[ualifier] occurs.' A qualifier is anything in the nominal group apart from the head; thus, his statement is descriptively equivalent to the one we have given.
5. (p. 138) This rule has the condition that NEG is not present:

nyè-mě-vá ò

'I didn't come'

and not:

*ne-mě-vá ò

Schreeder (1936.62) termed the failure of reduction to apply here 'dissimilation'. His use of this

term is not the traditional one, however, since it is usually used to refer to a positive phonological process, rather than to the failure of certain forms to undergo a process.

6. (p. 141) In the dialect described by Ansre (1966b), the subject pronouns appear to be largely in free variation; thus only /wè/ is given as a specifically sentence-internal form.
7. (p. 142) In Standard Ewe, the rule is nyè → yè, according to the example given in Westermann 1930.82. Some Interior dialects do not have the rule at all.
8. (p. 144) As in the analysis of English pronouns in Postal 1969.
9. (p. 145) We have here only elaborated on the observation of Baäta that 'we often use nu or ame with transitive verbs in place of a noun object in order that their meaning may be clear' (Baäta 1962.143). See also Westermann: 'Should a transitive verb lack a definite object, it must have an indefinite object, either ame of a person or nú of a thing; e.g. one may not say he = 'to bring up', but only he ame 'to bring up someone', and similarly not alo = 'to write', but alo nú 'to write something'. (Westermann 1930.69).
10. (p. 146) As Professor Bazell has pointed out to me, the rule in question is comparable in many respects to reflexivization in Latin, which is not downward-bounded (as in e.g. English). The chief difference between the use of self-reporting forms in certain African languages, on the one hand, and Latin, on the other, seems to be that Latin uses

the same form for reflexivization within the simplex clause as it does in embedded clauses. As we have seen (section 2), Ewe has a distinct form for reflexivization in the simplex clause. Also, while Latin reflexives refer exclusively to third person subjects, Ewe 'self-reporting' forms may also refer to second person subjects, as we shall see. In other respects the devices of these two languages are closely parallel.

11. (p. 152) This part of the rule is characteristic of Anlo but does not belong to the standard dialect.
12. (p. 154) The Central and Eastern dialects seem not to have the rules described in this section; their grammars are to that extent similar, and the negative paradigm more regular. In Gě we find the following forms:

nyemúvá ò	'I didn't come'
womúvá ò	'You didn't come'
(é)múvá ò	'He didn't come'
mímúvá ò	'We didn't come'
mimúvá ò	'You (pl.) didn't come'
wómúvá ò	'They didn't come'

(Schroeder 1936.62; the examples have been adapted to our tonal notation). Similarly, in Fō, where one of the negative markers is /ma...o/, we find the following regular paradigm:

ñ ma so o	'I didn't take'
we ma so o	'You didn't take'
e ma so o	'He didn't take'
mi ma so o	'We didn't take'
wi ma so o	'You (pl.) didn't take'
ye ma so o	'They didn't take'

(Delafosse 1894.234; no tonal indications are given). Even in the Western dialect described by Ansre (1966b), the negative marker is retained before the future tense marker:

mí máa ga wò àbà gbèdé ò

'We shall not fight again ever' (p. 172)

These forms confirm the fact that what we have set up as moderately 'abstract' base representations for Anlo are for the most part directly attested in other dialects. They permit us to form the hypothesis that the various members of this dialect cluster differ (in respect to negative forms, at least) not in their base representations but in the presence or absence of certain transformational rules. This variation is an elementary measure of syntactic 'markedness'. Anlo appears in many respects to be the most highly marked and complex of the described dialects.

13. (p. 155) Our analysis follows that of Westermann 1930.89.
14. (p. 157) In the form of Ewe described by Westermann (1907, 1930, 1961) sentences like:

kofí fíá-è kèkú 'Kofi showed it to Keku'

are grammatical, in violation of our constraint. Also, the data available for F_õ suggests that it has a Dative-movement rule lacking in Anlo; thus both the following forms are observed:

{ na nde mi }
 { na mi nde } 'Give something to me'

(Delafosse 1894.72). If these facts are correct, then neither Standard Ewe nor F_õ would have (12)

in their grammar. It seems, however, that no dialect described to date allows pronoun - pronoun object strings; if this is so, then strings like

*koffí fíá-è-è ('Kofi showed it to him')

or their equivalent would be ungrammatical in all described dialects.

5: The Auxiliary System: Mood

1. (p. 161) See note 12 of Chapter 5.
2. (p. 162) There seem to be no syntactic or morphological grounds for claiming, with Westermann, that Ewe has such moods as the 'jussive', the 'cohortative', the 'optative', the 'conditional', etc. The variety of 'mood' functions in Ewe is accounted for either by the imperative, subjunctive or (otherwise) tensed forms, or by syntactic devices (periphrasis, adverbs, etc.).
3. (p. 164) The first and only writer to comment on this fact was Henrici (1891.24):

A kind of optative is formed by the verb (na) ne. When this is adjoined in independent clauses, it can be understood as the imperative: neva, he must come. (...) The construction also occurs, however, in subordinate clauses:

blui ñuě de ne ab'lo nehũa

'Stir well so that the bread will rise'

Ewe is not alone in its use of the imperative forms in subordinate clauses. Kevin Ford (personal communication) reports that in Lolobi, a Togo-Remnant

language, independent imperatives are possible:

ba 'Come!'

However, an imperative sentence must be embedded after the verb 'want' if any element within it is topicalized by preposing. Thus, to take an example, if the verb meaning 'take hold' in the following imperative sentence is topicalized:

mwe ne su be ngbé
take-hold it bring here

'Pick it up and bring it here'

the imperative string must be embedded after 'want':

òmwe dólòbíé so mwe ne su be ngbé
I want that

'TAKE HOLD of it and bring it here'

He suggests that the Lolobi imperative is best handled as a subordinate form, and adds that Avatime (another Togo-Remant language) has similar characteristics.

4. (p. 166) These circumstances vary from dialect to dialect. In Gẽ, /né/ is not deleted after first person plural pronouns:

mínévá 'We must come'

(Schroeder 1936.61). In Fõ, the cognate form /na/ occurs not only in first person imperatives but with second person as well:

minado 'Let's say'
winado 'Say' (pl.)

(Delafosse 1894.58). This shows us another respect in which Central and Eastern dialects are less marked syntactically than Anlo, where deletion is more general.

5. (p. 166) Thus, for instance, Henrici (1891) does not mention the subjunctive at all, and Seidel (1906.122) denies that Ewe has one. This perhaps explains why Westermann failed to recognize the subjunctive until the publication of his 1954 dictionary: 'á, ǎ form the subjunctive and jussive...' (p. 1, but see our note 2 above for a comment on the 'jussive'), though he had earlier declared that the subjunctive occurs in temporal clauses beginning with háfi (né), kásíá (1961.45).
6. (p. 170) Furthermore, as Professor Bazell has pointed out to me, it would require that the deletion rule distinguish between the performative and non-performative meanings of /dyí/, since deletion can only operate on the performative verb.
7. (p. 171) Our analysis of the imperative and subjunctive forms differs substantially from that of Westermann. In the original edition of his Grammatik (1907.67; this passage was somewhat curtailed in the English edition), he treated these forms in the following terms:

The jussive indicates a command to the subject of the verb. It is formed by adjoining né or na to the verb. Né is a demonstrative pronoun, which we have already seen in nene, nane (from neane); na is ne with a, the sign of the future tense, joined to it:

néyl is thus literally: 'this goes'
nāyl 'you are to go'; néyl or nāyl
 'he is to go'

This passage is a characteristic example of how Westermann was led to spurious syntactic analyses on the basis of morphological parallels and hypo-

thetical etymologies. He eventually (1943) abandoned this analysis, following a suggestion in Schröder 1936, who traced the form /náné/ to /nú áǵé/ 'a certain thing'. Westermann's identification of nà with the formative né ignores the tonal difference between them, always sufficient in Ewe to distinguish two formatives. If we concede that nà is to be derived from /nè à/ by the regular application of independently necessary rules (Assimilation and Degemination), then we find that the first element is homophonous with the second person pronoun /nè/ rather than with /né/, a fact which is enough to suggest the correct analysis.

8. (p. 172) The parallel breaks down in Standard Ewe, however, where the string /mé-wé-vá ò/ is apparently not acceptable.
9. (p. 176) This rule is absent in Fõ (Delafosse 1894.63).
10. (p. 177) This rule, too, seems to be absent in Fõ; thus we find:

m yi ne m na ho wevi

'I go that I buy fish (= I'm going to buy fish)'

(Delafosse 1894.59), where the subjunctive marker /na/ follows the subject pronoun /m/. Thus in two further respects (see note 9 above) Fõ is observed to be less 'marked' syntactically than Anlo, in the fact that fewer rules are required to derive surface structures from deep structures.

6: Verbal Subcategorization

1. (p. 186) In Anlo, the form /ná/ is usually realized [né] as a result of Vowel Closing (p. 11).
2. (p. 191) Thus Westermann says that 'postpositions are substantives which designate space' (1961.3), and Baëta refers to them by the term 'tepefianuako', literally 'place-showing noun'. We have taken the term 'postpositional noun' from Ansre (1966b.194-6). See however note 3 below.
3. (p. 193). It is apparent that the term 'postpositional noun', though a useful ad hoc label for this category of items in Ewe, has no universal validity, since the order of these items with respect to the NPs associated with them is an implicational characteristic, not a defining one. The term is particularly inappropriate for languages like Igbo, as the material cited from Carrel 1970 shows, since there the postpositional nouns are in fact prepositional, in conformance with Greenberg's order universal. Apronti has proposed the term 'bound noun' for these forms (Apronti 1972); if this or another reasonable term were selected for this category belonging to universal grammar, much confusion would be eliminated.
4. (p. 194) Thus the kinship nouns /tsèé/ 'younger sibling', /tòǎlàyòvli/ 'elder brother's son' exceptionally require the presence of the genitive marker, while the non-kinship nouns /akó/ 'name', /dé/ 'home town' require its deletion. The postpositional noun /dòmè/ 'midst' deletes the genitive marker after plural modifiers:

wó dòmè

'(in) their midst'

but not after singular modifiers:

é pǎ dòmè '(in) its midst'

5. (p. 200) See Bazell (1966), Gross (1969).

6. (p. 200) A further characteristic of copulas is that a pronoun object, if present as an underlying form, is not reduced by paradigmatic reduction, nor is it reflexivized:

nyee nye nye 'I an I' MG. 33

7. (p. 207) We use the following indexing system in lexical entries: NP₀ = subject, NP₁ = variable NP of first complement, NP₂ = variable NP of second complement. We simplify all subcategorization features by omitting genitive markers before post-positional nouns.

8. (p. 210) Westermann 1905.119:

dé = the demonstrative verb [= our 'verbid' - GNC]
dé; if the object of a sentence stands at the beginning and dé therefore occurs at the end, then it becomes dé:

wotu x_{oa} dé afika? 'They built the house where?'

afika wotu x_{oa} dé? 'Where did they build the house?'

(...) Similarly in kpl_o d_o, where the object is missing;

kpl_o ame dé afia dé 'to accompany someone to a place'

9. (p. 212) Such a rule has been described for Nupe by N. Smith (1970.323).

10. (p. 213) In some types, the deep-structure S's are conjoined, while in others they are embedded in each other. See the references in note 10, Chapter 3.

11. (p. 214) Support for this analysis of serial idioms comes from the rule of Extraposition (section 9 below) which moves embedded clauses beginning with /bé/ to the end of the sentence immediately containing them. Let us take the serial idiom /xò...sè/ 'believe' as an example. If the first verb were dominated by a node S which does not dominate the second, then Extraposition would place an embedded /bé/-clause to the left of /sè/. If, however, both verbs are dominated by a single VP (as in the phrase-marker of p. 213) then a /bé/-clause would move to the right of /sè/. We find that this is the case:

me-xò-e se bé á-a-nyó 'I think it will be good'

12. (p. 226) A full account of qualifying verbs would have to explain the fact that many of them permit serial as well as gerundive VP complements, e.g.:

{	mà-tě nú và-vá-gé	}	'I'll be able to come'
{	mà-tě nú á-vá	}	

There seems to be some overlap, then, between this class of verbs and the class which 'modifies' VP complements in serial constructions (Bangboşe 1972).

13. (p. 230) For Extraposition in English, see Rosenbaum 1967, Röss 1967, but also Emends 1969, who argues against it.
14. (p. 232) We do not know whether verbs must be further subcategorized in terms of imperative and subjunctive clauses. It should be pointed out that for a large class of verbal expressions, including /nyó/ 'be good' (see (8)) and /wò nùkú/ 'surprise', a subjunctive complement is possible or obligatory

if the main verb of the principal clause is marked for the future tense. Therefore, in our entries we adopt the principle that subcategorization features will indicate the clause type required when the principal clause contains no member of T.

15. (p. 236) In most described dialects of Ewe, including Anlo, the verb generally conforms to the pattern C(L)V; nasality is only marginally contrastive in Anlo: /fíá/ 'show', /fíán/ 'burn'. Anlo has 27 segments capable of filling the first position when L (representing a single underlying liquid segment) is absent, and 21 when L is present. These combine freely with twelve vowels: /i e a ə o u/, which occur with either high or non-high tone (a few cooccurrence restraints are observed, but these have not yet been systematically investigated). On this basis, we may calculate 576 possible one-syllable forms. Marginally, there are verbs meeting the schematic form CiV as well as several reduplicated forms and a few nonreduplicated bisyllabic forms; their numbers are more than offset by the many random 'gaps' in the system, i.e. possible but unrealized forms.
16. (p. 239) The verbs /tró/ and /gbùgbò/ can be used transitively with the appropriate meaning, 'bring back'. However, they can both be used intransitively as well, and thus could not be matched with /gbò/ as suppletive forms. Many verbs of motion (/gbò/, /vá/, etc.) acquire causative meaning when they enter certain serial structures (see pp. 214-5).
17. (p. 239) For this reason we have not adopted the proposal of Shopen and Konaré (1970) relating such entries, or a subset of them, by 'Word Structure

Conditions'. They have offered good reasons, however, for believing that they cannot be related by syntactic transformations, as was suggested in Lakoff 1970. For some further discussion see Chomsky, to appear a.

7: The Rules: Summary and Discussion

1. (p. 258) This criticism can be brought against these attempts to justify a separate place for morphology in grammar with which we are so far familiar. The familiar claim that morphology accounts for the internal structure of words, and syntax the way they are put together in sequence (cf. Lyons 1970.96) is clearly inadequate for Ewe, where the internal structure of words is in part a syntactic matter (see PS rule 11), while sequences of categories beyond the word level frequently determine morphological alternation (e.g. rules 1, 3, 6, 11).
2. (p. 259) Chomsky and Halle also claim that readjustment rules (our morphological rules) will have the function of expressing properties of lexical formatives 'in certain restricted syntactic contexts' (1968.236). They give us no further information about these contexts, however, neither here nor in their summary discussion of the morphological functions of readjustment rules (ibid. pp. 10-11).
3. (p. 264) A similar constraint is observed to operate in the Akan tense-aspect system, where the set of tense-aspect markers found to occur in negative sentences is a subset of the forms occurring in affirmative sentences:

	<u>affirmative</u>	<u>negative</u>
ré-	progressive	future
-e	preterite	perfect
a-	consecutive	preterite
bé-	future	---
ǎ-	perfect	---
∅	present	present, progressive, consecutive

(Stewart 1963). Lyons points out that the so-called 'Austronesian' languages (Sudanese, Tagalog, Malay, etc.) have a similar tendency to represent several grammatical categories by single formatives (Lyons 1968.192).

4. (p. 266) See Bazell 1958, P.H. Matthews 1965, 1970, 1972.
5. (p. 266) Thus, R.A. Hudson has suggested to me that if one compares the IA (Item-and-Arrangement) and IP (Item-and-Process) models, IA can be ranked as making the least demands on a grammar and as being easily within the generative power of an IP grammar; IP, on the other hand, will account for morphological phenomena beyond the power of an IA grammar. Thus, if languages can be typologized as tending towards IA or IP, they can also be ranked in an order of complexity. Similarly, IP would be just a particular kind of WP (Word-and-Paradigm). Professor Bazell has further suggested that such hierarchies may not be unilinear (see Bazell, forthcoming).

Appendices: Appendix B

1. (p. 274) The evidence crucial to Kayne's analysis comes from the rule of Subject-inversion in French. Ewe has no parallel rule, although Ewe subject clitics are comparable to French subject clitics in certain other respects.

2. (p. 278) Perlmutter's remarks on Spanish clitic pronouns are pertinent to the present discussion, as Marisa Escribano has pointed out to me, and apply with equal force to the Ewe clitics:

Both the proposal that there is a node dominating the entire clitic group and the proposal that the clitics are Chomsky-adjoined to the verb impute a considerable amount of structure to the clitics-plus-verb group in derived structure. It is of course possible that evidence will be forthcoming to show that one of these proposals, or a similar one, is correct. In the absence of any such evidence, however, it seems that we do not need to attribute so much derived structure to the clitics-plus-verb group. (...) The relevant generalization concerning the status of clitics in surface structure involves the fact that they form a single phonological word with the verb on which they lean. Their attachment to the verb would therefore be of a kind with other word-level phenomena in syntax. If this is correct, we would expect not to find evidence sufficient to motivate a richer derived structure.

(Perlmutter 1971.80-81).

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