

AN ANALYSIS OF VERB SERIES IN KUTEB

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AN ANALYSIS OF VERB SERIES IN KUTEB

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CHAPTER ONE: INTRODUCTION

1.1 The Problem

Many West African languages, including Kuteb, have series of verbs occurring together with no intervening subject noun or pronoun. The meaning of the whole string is in some cases the sum of the meanings of the individual verbs and in others, quite distinct from the sum of the individual verbs making up the string.

As many grammars of West African languages have shown, many of the verbs that occur in series really function as modifiers of other verbs. Thus, assuming a functional definition of grammatical categories, a verb stem may, in some language, be considered an adverb, preposition, auxiliary, or even a conjunction, on the basis of its linear position, its lack of verbal affixes, its independence of aspect or some other such criterion. Westermann's comment on Ewe holds for many other languages as well:

Many verbs when they stand next to others play the part of English prepositions, adverbs, or conjunctions. They begin to lose their verbal characteristics in that they are no longer conjugated: they thus begin to become form words.

(Westermann, p. 126)

As verb series could generally be fitted into a framework of familiar grammatical functions such as adverb, preposition, etc., no one, in describing African languages,

really considered the possibility of handling such sequences in any radically different way.

Besides the sequences which include verbs that function as other parts of speech, there are sequences of verbs which can be considered manifestations of conjoined clauses, which are subject to a rule that deletes the subject of a non-initial clause if it is the same as that of the first.

Recent studies of clause and sentence structure in Bimoba, Kasem, and Vagala seem to indicate the possibility of the existence of a third type of verb string: a grammatical unit in between the clause and the sentence. Called a clause "cluster," this unit consists of two or three clauses which often share common elements such as location, time, or manner. There are tense or aspect restrictions governing the verbs in the series, and the cluster has, in many cases, a special meaning over and above the sum of the meanings of the individual verbs. For example, in Vagala,

ù kpá kíyzèé mǒng ówl	'He used the knife to cut
he took knife cut meat	the meat.'

the unit has an instrumental connotation that is expressed by the structure as a whole.

Turning to Kuteb, we find that a large number of verb series appear superficially to be the same kind of unit. I have selected around 300 of them as the corpus for this study. These sequences have two features in common: 1) a general intonation and pause pattern and 2) a shared element. The question before us is: are these sequences

distinct units? i.e., neither clauses nor sentences but something in between? If not, what are they?

1.2 The Purpose of This Study

The purpose of this study is 1) to show that many series of verbs in Kuteb are not clusters in the sense described above and that they can be described in rather familiar terms, and 2) to consider briefly the evidence for the existence of structures above the clause level. These may with further research turn out to be special sentence types, or they may be a level between clause and sentence, such as the clause cluster in Vagala and Kasem.

This study is not intended to be a comprehensive treatment of verb series in Kuteb. It will, hopefully, serve as a take-off point for further studies of verb strings and sentence structure in Kuteb and in other West African languages.

For a background to the analysis of verb series in Kuteb, let us briefly consider some of the studies of verb series in other West African languages.

1.3 Survey of Literature on Serial Constructions

Material on the following languages was available to me: Ewe, Twi, Fanti, Diola-Fogny, Kasem, Igbo, Idoma, Ijò, Bimoba, Vagala, and Jukun. I will consider only the more detailed descriptions here.

Westermann devoted several pages to verb sequences in Ewe (Westermann, pp. 86, 105-106, 126 ff.). His

examples fall into roughly six categories on the basis of the classes of verbs in them and their distribution, as follows:

- 1) closely knit pairs of verbs, the first or both of which may have an expressed object.
- 2) loosely knit pairs, usually containing motion verbs.
- 3) eighteen "finite" verbs (they occur independently), four of which are restricted in their ability to take verb affixes.
- 4) tsó 'to take' which occurs with an object followed by a few other words to form a close-knit "instrumental" sequence. Similarly, verbs translated 'to think,' 'to sorrow,' and 'to come' add meanings of 'do intentionally,' 'do with trouble,' and 'do gradually' to the verb they follow.
- 5) sequences in which the object of the first verb acts as the subject of the second. In such sequences the second verb usually expresses a quality. For example:

wówè	wò	nyó	'They did it well.'
they did it	it was	good	
- 6) sequences in which one verb leads up to what is observed by the other.

Another treatment of verb strings is found in The Idoma Language by R. C. Abraham (Abraham, pp. 17, 27, 42). In a brief section titled "Pairing of Verbs" Abraham says, "Verbs are often used in pairs to create some fresh notion. In some cases both are transitive." In other cases, he

demonstrates, the second verb is intransitive.

The few examples cited are very "close knit" in that their meaning is above and beyond the sum of the individual items. Examples of the combinations are:

o	module	le	'He managed to get food to eat.'
he	saw	food ate	

alo	mirje	kpl-a	'He managed to borrow money.'
he	saw	money borrow it	

o	bi - m	je	'He brought me up.'
he	hold	me I got big	

Verbs meaning 'finish' and 'already' also occur in series.

W. Welmers has discussed verb strings in A Descriptive Grammar of Fanti (Welmers, pp. 63-66). The sequences found in Fanti are reminiscent of those in Ewe, to which it is closely related. Most involve verbs of motion. Welmers cites roughly a dozen verbs that occur adjacent to verbs in a modifying capacity. There is no evidence that the author considers these verbs as truncated clauses, and no co-occurrence restrictions or tense restrictions are stated in the work.

As can be seen, these early treatments did little more than indicate the types of verb series that were found. In those studies attempting more than a listing of examples, the concern seems to have been centered on categorization of the verbal elements and formulating rules describing tense restrictions.

In a recent article "The Verbid--A Caveat to 'Serial Verbs,'" (Ansre, p. 29), Gilbert Ansre discusses the

material presented by Westermann and Christaller on verb strings in Ewe and Twi. Ansre points out two sources of difficulty in these and other early works. The first he cites is the "failure to distinguish the class of a unit and the place in the structure of the unit next above in the rank scale in which it operates." (Ansre, p. 29)

Phrased in tagmemic terms, this observation seems to be that there has been confusion between the class of fillers, on the one hand, and the slot (or function) it fills in a higher structure, on the other.

Linked closely to the first point, Ansre's second criticism is against "the assumption that identity in phonological shape presupposes grammatical identity as well as common lexis." (Ansre, p. 29) Phrased in another way, analysts have ignored the fact that two phonologically identical units may be two distinct grammatical units and/or two distinct lexical units, that is:

lexical:	'to run'	'to X while running'
= grammatical:	verb	adverb/verbid
= phonological:	[xyz]	[xyz]

Ansre uses the "verbid" (a term revived from Jespersen's Analytic Syntax, 1937) to label infinitive and verb plus -ing forms which are sometimes called "nominalized verbs." Verbids, he suggests, may have homophones which are full verbs. This idea certainly makes the analysis of certain elements easier, but it still does not face the problem of the existence of structures above the clause level.

Other languages which, according to Ansre, may have serial constructions, are Ga-Adangme, Nupe, Yoruba, and some Gur languages. Of these, I was only able to investigate Yoruba. That this language has verb strings is abundantly evident from Ward's Introduction to the Yoruba Language (Ward, throughout) in which she lists dozens of examples of verb-verb combinations. No longer series are mentioned, and there seems to be no attempt at describing co-occurrence restraints for these sequences. Apparently, to date no rigorous attempts have been made to describe the serial constructions as wholes in any of these languages.

Since Ansre's article appeared, a number of other works have been written mentioning serial verbs: W. Welmers' Jukun of Wukari and Jukun of Takum (1968), D. Sapis' Grammar of Diola-Fogny (1965), G. Jacobs' "The Structure of the Verbal Clause in Bimoba" (1966), K. Williamson's Grammar of the Kolokuma Dialect of Ijo (1965), and K. Pike's Tagmemic and Matrix Linguistics Applied to Selected African Languages (1966).

Only in the last four of these do the authors come to grips with the problem of linguistic structure above clause level. They do this in diverse ways and with varying success.

Dr. Williamson's Grammar of the Kolokuma Dialect of Ijo expands a presentation of "The Syntax of Verbs of Motion in Ijo" which she published in 1963. Using a transformational-generative approach, Dr. Williamson makes no attempt

to posit a structure above clause level, but takes VP as the basic unit and, by applying transformational rules to certain classes of verbs, joins these "sentences" into what she calls "complex verb phrases." The rules apply to carefully arranged classes of verbs labeled "general" and "specific" so that no non-occurring sequences can be generated.

Williamson's treatment of Ijò serial constructions by means of deletion and joining transformations has a two-fold significance. The first is that it signals that the notion of language as process is being introduced into the description of West African languages, a field long dominated by the view that language is a matter of items and structures.

A second and more specific contribution of Williamson's also stemming from the assumptions of transformational theory is that, basically, verb series involve clauses, not verbs, verbids, or adverbs, etc. Certain elements in certain languages may have digressed far from their original status as independently occurring clauses, but series analysis must start with the clause.

Transformational rules may be useful devices in descriptions of serial verbs, in that they account for what I consider to be the basic processes involved in the serial phenomenon--deletion and combination. There is one problem, however, which the transformational grammarian will soon have to consider in regard to clause clusters:

the rules describing combinations of clauses apply neither randomly nor in a vacuum. Whether you use transformational rules or syntactic matrices, the environment in which the relevant transform rules apply must be accounted for. This may not be a problem in Ijò, but it seems to me that as Williamson's description moves into areas above what has traditionally been known as clause level, some provision for this will have to be made.

With the appearance of D. Sapir's Grammar of Diola-Fogny, we see an attempt to account for the structures that do seem to exist above clause level. Sapir's description of the serial construction runs thus:

Two or more finite verbs, the sum of which describe a single state or act, can be placed together in a VERB STRING. This construction finds its most frequent, though not exclusive, use with verbal auxiliaries that define aspect and certain tense nuance.

(Sapir, p. 46)

While I appreciate Sapir's attempts to define the sentence in Diola-Fogny, I find the relationship of the "Verb String" to the notion of sentence in his description difficult to understand. According to Sapir, there are two basic sentence types in Diola-Fogny: 1) The Simple Finite Type, centered on a finite verb, and 2) The Simple Concept Juxtaposition, consisting of two juxtaposed nominal or semi-nominal elements. Compound Sentences, he states, also exist, consisting of two independent sentences "which may be simple or verb string sentences or sentences with relative clauses." The "verb-string sentence" apparently

parallels the Clause Cluster suggested by Pike et al for Kasem and Bimoba, which we will now discuss.

Tagmemic and Matrix Linguistics . . . by K. Pike is the only systematic comparative description of serial verbs and related phenomena which I have been able to locate. The main overall contribution of this work is that it shifts the emphasis from the definition of the verbs or verb-like elements in clusters to their distribution. In addition, Pike starts with the assumption that in these languages, the units which should be primarily in focus in the description are clauses rather than verbs. This assumption is apparently also shared by Williamson.

With data from Kasem, Bimoba, Vagala, and Igede, Pike rigorously demonstrates the existence of a unit above the clause level and below sentence level, the Clause Cluster.

1.4 Theoretical Approach

Tagmemics as a linguistic model has been developed mainly by Kenneth L. Pike, Robert E. Longacre, and others associated with the Summer Institute of Linguistics. Pike's work Language in Relation to a Unified Theory of the Structure of Human Behavior (1967), in particular, sets forth the theoretical assumptions and principles of the tagmemic approach. Two other important works explaining general tagmemic theory and its application must be mentioned: Longacre's Grammar Discovery Procedures (1964)

and Benjamin Elson and Velma Pickett's An Introduction to Morphology and Syntax (1962).

The following description is designed to help the reader understand this thesis, not to give a thorough account of the principles of tagmemic theory.

Central in tagmemic theory is the idea that linguistic structures (syntagmemes) are made up of functional "slots" filled by classes of (usually) smaller units. A clause, for example, has slots such as subject, object, location, and time, to mention a few. These slots are filled by noun phrases or pronouns. The correlation of the slot and filler is called a tagmeme.

The tagmeme is symbolized by a colon with the function to the left of it and the filler class on the right. For example, the symbol $O:NP/pn$ represents a tagmeme consisting of an object slot filled by a noun phrase or a pronoun. An entire clause is symbolized as a string of tagmemes. For example,

$${}_tCl = {}_{\pm}S:NP/pn \quad +{}_tP:VP_t \quad {}_{\pm}O:NP/pn \quad {}_{\pm}Loc:LocP$$

symbolizes a transitive clause having a basic subject-predicate-object structure and filled (or manifested) by a noun phrase or pronoun in the subject and object slot and a transitive verb phrase in the predicate slot. The $\pm$ notation indicates optional occurrence of a filler; the $+$ indicates obligatory.

Another cardinal idea in tagmemic theory is that the grammatical structure of a language can be described as a

hierarchy of levels, the units of one level filling functional slots in structures on the next higher level. Word, phrase, clause, and sentence are some levels typically found in languages.

For some years tagmemic theory has been used to describe American Indian languages some of which seem to have a structural level in between clause and sentence. Sometimes termed "colons," these structures consist of sets of functional slots such as cause-effect, behavior-purpose, or activity-instigation. These functional slots are manifested by clauses.

Recently the idea of levels has been applied to West African languages, and to the problem of verb series in particular. Tagmemics treats such series in terms of levels. In Tagmemic and Matrix Linguistics Applied to Selected African Languages, some strings of verbs are considered to be clause clusters. Like the colon, the "cluster" exists on a level intermediate between the clause and the sentence. Individual clauses fill function slots in the clause cluster. The cluster, in turn, forms part of a sentence. In some languages there are two types of clusters--close-knit and loose-knit. In other languages, an analysis into two general sentence types--close-knit and loose-knit--accounts for the data more satisfactorily.

Tagmemic theory demands that a description of a language include a statement of contrast, variance, and distribution of structures discovered in the language.

The total lack of information on sentence in Kuteb makes any generalizations on distribution of clauses and clusters impossible at this point. In the absence of such information, what I have done is to study the variations among the sequences in terms of number of clauses, type of clauses occurring in various clusters, co-occurrence of different clause types, and the phenomenon of morpheme sharing. On the basis of these patternings I have suggested two types of clause clusters that may exist in Kuteb and rejected several other types of series from the cluster category. Further studies of the composition and distribution of these verb series will almost certainly yield other types in addition to these and perhaps cross-cutting this classification.

It must be pointed out here once more that we are unable to say at this point if the two clusters just mentioned should be considered special sentence types or whether they will constitute a separate level between clause and sentence. Studies of sentence types and other levels of discourse must be made before our description of these clusters can be considered adequate.

1.5 The Corpus

The 289 clause sequences making up the corpus for this study have been extracted from personal narrative and dialog texts, and folk stories collected by the writer during a two-year stay among the Kuteb people in Nigeria. No printed material has been produced in this language as

yet, as an alphabet is just now being introduced.

As serial constructions are nearly impossible to elicit, one is completely dependent upon tape recorded texts for such an analysis. As a result, this is primarily a description of actual speech rather than idealized speech. The bulk of the corpus is taken from an explanatory conversation between Alexander Sozon, a teacher in his late twenties, and Naboth Jatau, an agriculture worker about 20 years old. Besides this forty-minute conversation, the corpus included a series of conversations between two teenage girls, Deborah Appolos and Hanatu Lissam, about their daily activities, and six short folk tales by a 30-year-old man, A. Othniel Muri, and a middle-aged woman, Abigail Shamaki. All of these are native Kuteb speakers of the Lissam dialect spoken five miles east of the town of Takum in the Wukari Division of Benue-Plateau State. There are between twenty-five and thirty-five thousand speakers of Kuteb.

1.6 Orthography

The orthography used for the examples in this paper is the standard orthography being introduced to Kuteb speakers in a literacy campaign currently under way. This orthography is based partly on phonemic analysis of the language by William Welmers and modified somewhat by my own analysis and practical considerations. The consonants are:

stops: p, t, k, b, r, g, ts, j, c [tʃ], mb, nd, nz,
ngg [ŋg]

fricatives: f, s, z, x, h

nasals: m, n, ny, ng [ŋ]

semivowels: w, y

The vowels are:

oral: a, ɶ[æ], e, i, o, u

nasal: an, ɶn[ɛ̃], en, in, on, un

Although Kuteb is a tone language having at least three and possibly four distinctive tones, I have decided to leave tone unmarked on the examples in this presentation as it is not necessary for an understanding of the problem and does not contribute to the readability of the examples.

1.7 Analytical Procedures

In analyzing texts for sentence level structures, the problem, practically speaking, is to determine the boundaries of the possible grammatical units involved and to define the variety of contrastive and non-contrastive structures within these boundaries.

First of all, I attempted to determine as many junctural features above the clause level as possible--clear intonational contours, pauses, and certain grammatical particles, and "sequence tagmemes" equivalent to "furthermore," "or," "then," and other such elements in English.

At this point three basic types of sequences could be determined:

- 1) juxtaposed clauses having two or more same or different expressed subjects.

- 2) juxtaposed clauses sharing subject.
- 3) clause sequences in which the object of the first clause acts as the subject of the second.

In order to limit the corpus further, I eliminated category one, which included strings such as:

- 1) inji cwu iyem cwu ama
elephant die hippo die also
- 2) awu ri ba awu na ru ba
he said he would come

These I felt could be handled much more reasonably as simple cases of clause coordination (example 1) or as quotation units (example 2)--probably sentences.

The next step was to consider the grammatical units with which I was working. I took the clause as the elementary unit in my study. A glance at the contrastive clause types may be helpful at this point.¹

¹For the definition of clause in the tagmemic framework, see Elson and Pickett:

A clause construction is any string of tagmemes which consists of or includes one and only one predicate or predicate-like tagmeme among the constituent tagmemes of the string, and whose manifesting morpheme sequence typically, but not always, fills slots on the sentence level.

Benjamin Elson and Velma Pickett, An Introduction to Morphology and Syntax (Santa Ana: Summer Institute of Linguistics, 1962), p. 64.

Longacre's definition of clause is of less value here as it makes no reference to predicate, but rather defines the clause in terms of its position in the grammatical hierarchy, as follows:

Definition of clause: a class of syntagmemes of a median hierarchical order ranking above such syntagmemes as the phrase and word and below such syntagmemes as the sentence and discourse.

Robert E. Longacre, Grammar Discovery Procedures (The Hague: Mouton and Company, 1964), p. 35.

I have thus far isolated six basic clause types. These types contrast according to the class of verbs filling the predicate slot, the presence or absence of tagmemes such as object, equation, location, and possession, and the differing role of subject (actor versus topic) in some of them.² The nuclear elements of the six basic clause types are indicated in the following formulae:³

1) Transitive

$$_tCl = \pm S_a:NP \quad +_tP:VP_t \quad \pm O_g:NP$$

2) Intransitive

$$_iCl = \pm S_a:NP \quad +_iP:VP_i$$

3) Stative

$$_sCl = \pm S_t:NP \quad +_sP:VP_s$$

4) Equative

$$_eCl = +S_t:NP \quad +_eP:cop \quad +Equation:NP$$

5) Locative

$$_lCl = \pm S_t:NP \quad +_lP:ta \quad +Loc:LocPhr$$

²For criteria of contrast here we follow Longacre:

Two clause types are syntagmatically distinct if (a) there be at least two structural differences between them, and (b) at least one of these differences involve the nuclear and/or obligatory tagmas Structural differences distinguishing clause types are as follows: (a) an obligatory difference in the ordering of similar elements . . . (b) . . . differences in the structures of words, phrases, and subordinate clauses; (c) a difference in emic classes manifesting two tagmas . . . (d) a difference in the number of tagmas in one type versus the other; presence of a given tagma in one type versus its absence in the other; (e) a regularly stateable grammatical transform.

Longacre, op. cit., pp. 47-48.

³See table of symbols and abbreviations, Appendix I.

6) Possessive

$pCl = -S_t:NP \quad -p^P:\underline{ta/si} \quad -Poss:PossPhr$

Temporal, Locative, Instrumental, Accompaniment, Benefactive, and possibly other tagmemes occur with many of the above types and help to contrast them, formally, with each other. A detailed account of these contrasts is unnecessary here. All that need be said is that some of the above clauses appear as members of clause clusters and cluster-like constructions. Which ones appear, their variants, and the precise combinations in which they occur are the subject of the next two chapters of this paper.

In order to account for certain series I have found it helpful to posit, in addition to the above clause types, a motion clause and a causative clause as follows:

$mCl = \pm S_a:NP \quad +m^P:V_{mot} \quad \pm Loc:LocPhr$

$cCl = \pm S_c:NP \quad +c^P:V_{caus} \quad \pm O_a:NP$

These differ from the intransitive and transitive clauses, above, in their restricted classes of predicate tagmeme fillers. The function of the subject of the causative clause is distinct from that of the subject of other clauses, being a causer, or catalyst. In addition, in the case of the motion clause, the predicate is followed by a location tagmeme that forms part of the nucleus of the clause. In all the other clauses except the locative, the location tagmeme occurs only as a peripheral tagmeme or not at all. As for the "causative," its obligatory co-occurrence with a motion clause is a further distinguishing characteristic.

CHAPTER TWO: ANALYSIS OF PSEUDO-CLUSTERS

In this chapter we will deal with a number of different types of verb sequences, showing that each case can be described more reasonably as functioning in something other than a "clause cluster." In particular, it will be seen that these series can be dealt with as phenomena of several different levels--some above the clause level, others at the clause level, and still others on the phrase level. The following main categories of sequences are included in this chapter:

- a) sequences of clauses in which the subject of non-initial clauses is deleted if it is the same as that of the first clause (Section 2.1)
- b) verb sequences that can be analyzed as elements of a single complex verb phrase
 - i. Auxiliary-Main Verb (Section 2.2.1)
 - ii. Main Verb-Noun-Adverb (Section 2.2.2)
 - iii. Main Verb-Extension (Section 2.2.3)
- c) idiomatic sequences of verbs that have become compound verbs (Section 2.3)
- d) verb phrases resulting from a recapitulated verb (Section 2.4)
- e) verb phrases containing stylistic repetition of a verb (Section 2.5)

- f) apparent clause sequences resulting from unmarked embedding (Section 2.6)

2.1 Sequences of Clauses Characterized by the Deletion of the Subject of the Non-initial Clause

This group includes series of transitive, intransitive, and motion clauses in various combinations. The phenomenon that unites them in one group has been called "zero anaphora,"⁴ "morpheme sharing," or "pivoting" (Hockett, p. 244). There are two groups; in both cases the subject of the second clause is deleted. In the first case (2.1.1), the subject of the first clause functions as the subject of the second. In the second (2.1.2), the object of the first clause performs this function. Examples are:

2.1.1 Subject of first clause is subject of second clause

2.1.1.1 transitive-transitive

Cl _{tr}				Cl _{tr}		
S	P	O	(S)	P	O	
Satu	txi	ambyi		munncipu	kututong	
Satu	dip	water		fill	pot	

'Satu dipped water and filled the pot.'

mbakunn	ta	ici	shwe	mba
chicken	lay	eggs	hatch	child

'The chicken laid eggs and hatched chicks.'

⁴I first encountered the use of zero anaphora in a dissertation by Thomas H. Roberts, "Noun Phrase Substitutes and Zero Anaphora in Mandarin Chinese" (Ann Arbor: University Microfilms, 1968), Abstract, p. iii:

A subject (Topic) of a clause, whether or not a goal of the action in the verb, may be left unexpressed, with the reference still clear, if the subject of the preceding clause (within the same sentence or in the preceding sentence) has the same reference. Such subjects are called zero subjects.

u kusu usu pitsan wu
he carrying load follow him

'He carried [continuous] loads behind him.'

2.1.1.2 intransitive-motion

S	P	(S)	P	Loc
utenti	mbubta	kuru	yi uwe	
our country	open	going	to front	

'Our country is opening up and going ahead.'

S	P	(S)	P	Loc	
icwung	benye	kuru	ise	cwucwo	be
mice	ripen	going	outside	again	not

'The mice wised up and didn't go outside anymore.'

In the case of transitive-transitive pairs, a like object in the non-initial clause is usually deleted as well, as can be seen in the following examples:

Cl _{tr}			Cl _{tr}		
S	P	O	P		
a	nungrisi	fu	u	yata	
they	pity	you	leave		

'They pity you and leave you.'

S	P		P	IO
u	nya	atang	saa	na itewu
she	pour	thereof	gave	to her father

'She poured it and gave to her father.'

Cl _{tr}			Cl _{tr}		
Topic	S	P	P	IO	
goro,	fu	pu	kan	ba	
kolanuts	you	take	divide	to them	

'You distribute kolanuts among them.'

In the last two examples the object is not expressed in the object slot of either clause. In such sequences the

object is either understood from the immediately preceding clause or is expressed in a clause topic slot, as is illustrated by the last example given.

2.1.1.3 transitive-motion

S	P	O	P	
u	yin	itukun	kucang	'He went around planting
he	plant	trees	walking	trees.'

awu	jab	Baible	ru	yi	Rufun	'He bought a Bible and
he	buy	Bible	go	to	Kunabe	went to Kunabe.'

ni	yesu	ajwoni	kuru	yi	ise	'You go outside holding
you	hold	hands	going	outside		hands.'

2.1.1.4 intransitive-intransitive

a	som	ba	kuskan	tatso	'They sat and laughed
they	sit		laughing	together	together.'

2.1.2 Object of first clause is subject of second clause

2.1.2.1 transitive-intransitive

S	P	O/S	P		Loc
awu	nung	kurang	som	tsan	risu kutukun
he	saw	crow	sit	atop	top tree

'He saw the crow sitting up in a tree.'

S	P	O/S	P	O
aba	tu	ndewu	ku	na riben
they	found	the man	lying	ground

'They found the man lying on the ground.'

Hockett's term "pivoting" for a phenomenon similar to the above in Potawatomi accurately reflects the way both clauses are linked through a single morpheme.⁵

⁵Word order yields slight differences between pivoting in Potawatomi and that in Kuteb. Mainly, where Potawatomi has P₁ S P₂ (S being the subject of both predicates), Kuteb has S P₁ P₂ making the "pivot" metaphor less vivid. The Kuteb "pivot" in this case is more like a hinge.

When the pivot performs a different function in each

Sequences of type 2.1.2 can be analyzed in two ways. One way is to consider the noun phrase or pronoun on which the clauses pivot as having a dual function: object for the first clause and subject for the second. A simpler way is to say that the subject of a non-initial clause can be optionally deleted if it is the same as either the subject or the object of the previous clause. The context usually assures that ambiguity does not result from such deletions.

A rather important point must be made at this juncture. The phenomenon of morpheme sharing (i.e., zero anaphora or pivoting), does not in itself constitute grounds for setting up a special cluster level or unit. Subject deletion is a normal mechanism operating at clause level in many languages and could be used as supplementary evidence for defining the cluster as a special unit, if some other structural or distributional evidence were found.⁶ No such evidence has been found for the examples

clause, the Kuteb and Potawatomi examples are more similar.

⁶Pike's argument for the existence of clusters in certain languages seems to rest mainly on:

- 1) sequence-patterns, i.e., pairings of certain clause types, or restrictions on certain sequences of clauses.
- 2) sharing of tagmemes and resulting unsegmentability of clauses.
- 3) the presence of a single semantic concept.

Pike says:

It is to see the unity in the cluster that one emphasizes that sharing or placement is found in relation to the whole cluster The cluster is a single wave, with the primary clause as its nucleus but with no possibility of clean-cut segmenting between

above.

2.1.2.2 transitive-stative

A few transitive-stative sequences occur in the data. The following are examples:

S	P	O	P	
awu	ku ci	wuci	kuko	'He eats a lot of
he	eats	food	is much	food.'

S	P	O	P	
uwawu	kukur kiran	do	timambe	'His wife makes
wife-his	cooks fufu	be	sweet very	delicious fufu.'

S	P	O	P	
ame fxe	acangfu	nyang	timambe	'I heard your beau-
I	hear songs-your	be	good very	tiful songs.'

One might ask how the above examples differ from a clause in which the object consists of an expanded noun phrase such as 'very sweet fufu,' 'very good songs,' etc. The answer is that noun qualification in Kuteb is generally expressed by phrases such as ti riwa 'with longness,' ti kuskab 'with foolishness (= foolish),' ti tinyang 'with smallness,' or by stative verbs such as nyang 'to be good,' kyim 'to be fat.' Adjectives as such do not exist in the language.

the clauses without distortion.

Kenneth L. Pike, Tagmemic and Matrix Linguistics Applied to Selected African Languages, United States Department of Health, Education and Welfare (Washington: Government Printing Office, 1966), p. 64.

Where Kuteb apparently differs from Pike's data is in the rarity of cases which are really nonsegmentable. The sharing of tagmemes is definitely operative, but only in the cases of the instrumental and causative is there difficulty in segmenting out the participating clauses.

2.2 Single Clauses with Complex Predicates

Many of the sequences in the corpus consist of a main verb modified by another verb, usually a verb of motion. In some cases the modifying verbs cannot take an aspect marker; in others, a continuative aspect marker is the only one allowed. I have divided the sequences in this section into three main types according to the position of the auxiliary or adverb and its relationship to the main verb.

2.2.1 Auxiliary-Main Verb Relationship

The auxiliaries in this group occur with transitive, intransitive, and motion verbs. The formula for a transitive clause having this type of relationship is as follows:

$\pm S:NP/pn$ $+_t P:VP_t$ $\pm O:NP/pn$

The Predicate tagmeme is further broken down into an auxiliary and main verb as follows:

$VP_t = \pm Aux:V_{mot}/V_{att} \quad +Head:V_{tr}$

Ninety-four transitive clauses and thirty-one motion and intransitive clauses had a motion-auxiliary before the main verb. Following are some of the many examples of this type of sequence:

S	P _m		Loc	
m'a	ruka	nwunn	ukan	'If I leave Wukari.'
if I	go	leave	Wukari	

S	P _i		Accomp	
ricen	bā	som	teti	'A stranger came and
stranger	come	stay	with us	stayed with us.'

S	P _i		Loc	Temp	
awu	ruka	nā	akwen	yaka	'He went and slept there
he	went	sleep	there	today	today.'

S	P:VP _t	O	
awu	ruka	mbe	unda
he	go	take	woman

'He went and got married.'

aba	ruka	tu	mbapxu
they	go	find	dog

'They went and found a dog.'

m	ba	ci	Krismas	teni	
I	come	have	Christmas	with you	

'I'll come to have Christmas with you.'

ame	ba	fxen	acangfu	ire
I	come	hear	songs-your	yesterday

'I came and heard your songs yesterday.'

mbakunn	ruba	pyera	ribyan	wu
chicken	come	pluck	tick	the

'The chicken came and plucked the tick.'

Three of the sequences in the data had cwe 'agree' filling the Auxiliary Slot, and one had shan 'disagree.' These I have termed 'attitude' auxiliaries. Examples follow:

S	P	O	
fu	cwe	mbe	wu
you	agree	take	her

'You agree to marry her.'

awu	na	cwe	mbe	uji	wog	kisung
he	asp	agree	take	rope	from	rabbit

'He agreed to take the rope from Rabbit.'

S	P	O	
w'a	shan	ku	nde
he-if	refuse	doing	he

'If he refuses to do it.'

In addition to the motion and attitude auxiliaries, there is an auxiliary which seems to occur only when a motion verb fills the main verb slot. Homophonous with the verb meaning 'to turn,' this auxiliary modifies the verbs 'go' and 'come' to express 'go back' and 'come back.' Examples follow:

S P_m Loc
 ti kafe ruba ci ti ira uten-ni cwucwo
 we turn come to matter country-your again

'Let's come back to the topic of your
 area again.'

S P_m Loc
 . . . ti wu kafe ru ti uten-wu tiri
 that he turn go to country-his then

'. . . he goes back to his own country
 then.'

S P_m
 . . . ti f'a kafe ba . . .
 and you if turn come

'. . . and if you come back'

It is necessary to make two observations here concerning verbs of motion. Motion verbs fall into categories of specific and general, as follows:

<u>general motion</u>		<u>specific</u> (type of motion)	
ru	'go, move'	ter	'run'
ba	'come'	cang	'walk'
ka	'go, reach'	byir	'assemble'
tso	'ascend'	funn	'assemble'
si	'descend'	pwatso	'follow'
sang	'enter'	kan	'fall'
tsi	'stand'	penn	'fly'
nwunn	'leave, get up'	mbya	'jump'

The general motion verbs, especially ru, ba, and ka, often occur as auxiliaries preceding a main verb. The specific set occur occasionally in this function but also often occur as fillers of the main verb slot in the verb phrase.

The verbs ru 'go,' ka 'go,' and ba 'come' have a close relationship that I haven't completely determined yet. In terms of overall patterning, the sequence ru ka is handled more effectively as a unit than as two separate words. In all sequences Subject-ka-Main Verb, ru can be inserted before ka with no appreciable change in meaning. The two elements are frequently elided to ra in rapid speech. ru ba exhibits no such elision, but seems to fluctuate with ba as ka does with ru ka, with no meaning change. In other words:

ba = (ru) ba

ka = (ru) ka

It is possible that ru indicates simple motion and that ba and ka indicate direction toward and away from the speaker, respectively. The following also occur:

tso ba 'ascend-come' tso ka ascend-go 'go up'

si ba 'descend-come' si ka descend-go 'go
down'

sang ba 'enter-come' sang ka enter-go 'go in'

A brief statement of these verbs of motion might be given in this way:

V ₁ :Motion		V ₂ :Direction	
ru	'move'		
tso	'ascend'	ba	'come'
si	'descend'	ka	'go'
sang	'enter'		

2.2.2 Main Verb-Object-Adverb Sequences

Homophones of the verbs si 'descend' and tso 'ascend' occur in many transitive clauses just after the object. They add meanings of 'up' and 'down' to the meaning of the main verb. They are part of the Verb Phrase, symbolized as follows:⁷

$_tCl = \pm S:NP/pn \quad +_tP:VP_t \quad +O:NP/pn \text{ (adv)}$

$VP_t = \pm Asp:f/t/c \quad +H:MV \quad \pm M:adv$

where H(ead) and M(odifier) are the slots of the Verb Phrase. Examples are:

S	P	O	P	
awu	ku mum	aser	tso	'He's digging up the
he	digging	money	ascend	money.'

S	P	O	P	
awu	sa	ayib	si	'He looked down.'
he	put	eyes	descend	

In some cases it is difficult to tell whether the verb-like element is modifying the verb or if it is acting as the predicate of a causative-motion clause sequence; that is, the sequence

awu mbye kusog tso
he build house ascend

could be considered a conjoining of the following with a simple deletion of the subject of clause 2):

- | | |
|-------------------|----------------------|
| 1) awu mbye kusog | 'He built a house.' |
| 2) kusog tso | 'The house went up.' |

⁷The use of parentheses as a device to account for the discontinuous nature of the verb phrase manifestation here comes from Elson and Pickett, op. cit., p. 108.

Two considerations invalidate the latter analysis. In the first place, the verb tso seems to occur only with animate subjects. Secondly, mbye has not been known to occur as a causative verb in any non-suspect situation. In addition, causative-motion sequences usually have a location tagmeme which is not present in these examples.

2.2.3 Verb-Extension Sequences

The verbs num 'to tire,' mam 'to finish,' fob 'to reach,' and tur 'push,' are fully independent verbs in Kuteb. Occurring after another verb, however, they qualify the meaning of the main verb in some way; for example:

S	P _t	S	O	
afu	nde	fob	fu	ayi be 'You aren't able to do
you	do	reach	this	not it.'

S	P _t	S	O	
aba	ta	mam	pu ba	aser 'They finished paying the
they	pay	finish	asp	money money.'

S	P _t	S	O	
fu	a	nde	num	pu fu ayine . . .
you	if	do	tire	asp these
				'If you do these (things)
				until you're tired....'

	S	P _t	O	
(ti nung ti)	ti	ba	tur	ikin . . .
we saw	that	we	write	push things
				'(We saw that) we could
				write things.'

Ansre's caveat is apropos at this point. He suggests that two homophonous units be posited, one having the full verbal meaning and entering into the clause-level strings, the other (a 'verbid') having a more limited meaning and acting as an extension or adverb.

It seems that in Kuteb, and in many other West African languages, what now are verbal extensions, or adverbs, or auxiliaries of some kind, have evolved from serial constructions. Considered synchronically, however, their position and aspect restrictions force us to analyze them as modifiers manifesting part of the verb phrase, within a single predicate.

A few other extensions parallel the above forms but do not have homophonous verbal counterparts. The meanings of these are not completely clear, but the following examples may help define them for the reader:

S	P _t	ext	IO	O	
ame	rang	<u>ci</u>	fu	ira	ikin ti kuskab
I	ask	(again?)	you	matter-	foolish

'Let me ask you a foolish question.'

S	P _c	ext	O	P _m	Time
(ti)	wu ye	<u>bom</u>	Lupwe ike	tsi	tikucang
(who)	he hold	strong	Lupwe here	stand	at first

'who established Lupwe here at first.'

S	P _t	ext	O	
ame	nung	<u>ta</u>	rinyiba yi	'I know their names.'
I	know ?	names-their		

a	kur	<u>tag</u>	riben wu
they	till	completely	the ground

'They tilled the ground completely.'

unda	wu	bur	<u>ci</u>	kututong
woman-the	cover-?	pot		

'The woman covered the pot.'

cwunn	<u>ci</u>	ufu	kusog	'Close the door.'
close	?	door	house	

2.3 Idiomatic Sequences/Compounds

Several apparent verb sequences can be analyzed as verbal compounds. Like those in 2.2 above, these constructions manifest a single predicate tagmeme in simple transitive clauses. They are very similar to compounds such as *giveaway*, *feedback*, *countdown*, and *blackbird* in English and can be described formulaically as:

$$VP_t = \pm \text{Asp:f/c/t} \quad +MV:tv_s$$

Examples are:

S		P		O
a	na	ye-wen	iben	ni
they	catch	kill	marriage-	your

'They will give you a divorce.'

S		tP		IO		O
fu	kwen	-tso	wu	ayine		
you	teach	show	him	these	(things)	

'You teach him these things.'

The position of the object in these examples (i.e., after the compound verb) indicates the close unity of the morphemes making up the compound.

In addition to the three compounds cited in the examples above, I have observed the following:

txa-wen	trap-kill	'to kill by trapping'
kunn-shwur	call-awaken	'to awaken a person by calling to him'
nde-mbeb	do-become bad	'to become spoiled'
som-ji	sit-wait	'to wait'

2.4 Verb Phrases Resulting from a Recapitulating Verb

Many transitive verbs in Kuteb seem to be able to be optionally recapitulated, which consists of the verb stem being repeated after the object. I have not been able to determine if this phenomenon is conditioned by anything; it doesn't seem to change the meaning of the clause in any way. Examples are the following:

S			t ^P	O		
upwen	ba	ku	ci	yi	ci	'Partridges come and
partridge	come	asp	eat	it	eat	eat it.'

S	P _i		O		
aba	ku	pwen	wuci	pwen	'They're counting the
they	asp	count	food	count	food.'

t ^P	O		
som-ji	m	ji	'Wait for me.'
sit-wait	me	wait	

In writing a formula for this type of structure it might be easiest to consider it an underlying reduplication. For example:

tO1	=	+S:NP/pn	+P:VP	+O:NP/pn	(v recap)
VP	=	±asp:t/c/f	+H:vs	±RecV:vs	

The line in the above formula indicates a co-occurrence in which the verbs must be the same.

The last example above suggests that in the case of verbs with compound stems, only the final part of the compound is repeated.

2.5 Verb Phrases Containing Stylistic Repetition of a Verb

Occasionally a verb is reduplicated in order to indicate repeated or intensive action. Such sequences can be considered as parts of a Verb Phrase, consisting of a Head Slot and an optional Reduplication Slot, the fillers of both being identical, all filling a single predicate slot within a single clause. Some examples are:

rimenn wen wen uɟwong 'The cat was very hungry.'
hunger kill kill cat

ndewu mum, mum, mum gburinn 'The man dug and dug and
man-the dig, dig, dig ! dug!'

mbakunn ti inji shan shan tetso, ba si . . .
chicken and elephant argue argue together, saying . . .

'The chicken and the elephant quarreled,
saying'

mbakunn num num kika be 'The chicken wasn't tired
chicken tire tire yet not yet.'

2.6 Sequences Containing Unmarked Embedding

Certain verb sequences beginning with the verb nung 'see, know' followed by a locative, possessive or transitive clause can be considered two separate clauses, one embedded in the other, i.e., one filling the object slot of the former. Consider the following:

S tP:tV O:pCl
ame nung afu si te aser 'I see that you have
I see you have money money.'

S tP:tV O:lCl
ame nung fu ta atang 'I see that you are
I see you here here.'

S tP:tV O:tCl
 aba nung ande ku nde wande fanggo
 they saw men doing work road

'They saw men working on the road.'

An alternative analysis would be to consider these as examples of zero anaphora of subject, discussed in 2.1 above.

CHAPTER THREE: CAUSATIVE AND INSTRUMENTAL--TWO POSSIBLE CLUSTER TYPES

Two sequences of clauses seem to offer themselves as possible candidates for the position of clause cluster in Kuteb. These I have called "causative" and "instrumental."

The crucial point in describing these two structures is that in addition to having a bipartite structure distinct from that of single clauses and coordinated structures, these represent single semantic concepts. While in some languages the concept of bringing or taking something somewhere may be expressed as a single clause, in Kuteb it is expressed as a causative cluster literally translated 'take it go/come.'

In the case of the instrumental concept, Kuteb has two alternative ways of expressing the idea: a relator-axis phrase and a clause cluster very similar to the causative construction.

3.1 The causative construction is a special type of two-clause sequence in which the clauses have a vaguely causal relationship. The most frequent combinations involve a "catalyst" or "cause" clause, usually containing either sa 'take' or pu 'collect' followed by an object which acts as the subject of (usually) a motion clause. There is

considerable evidence to support an analysis of the causative sequences as a two-part 'cluster' consisting of a "causer" or "catalyst" slot and an Action Slot, filled by a causative clause and a motion (or intransitive) clause, respectively; for example:

Caus: _c Cl			Action: _{m/i} Cl		
S	P _c	O/S	P _m	Loc	Temp
fu	sa	(ira ne ahan)	ka	koto	tiri
you	take	matter this	go	court	then

'You take this matter to court then.'

Caus			Action		
S	P _c	O/S	P _m	Loc	
a	sa	(zobe na iben)	sang	kujwoni	
they	take	wedding ring	enter	hand	

'They put wedding rings on your hands.'

Caus			Action		
S	P _c	O/S	P _m		
a	sa	tebur	tsi		'They set up a table.'
they	take	table	stand		

Caus			Action		
pu	wuci	ba	na m		'Bring the food to me !'
take	food	come	to me		

The causative construction presents us with three difficulties. First of all, they would seem to be very easily confused with a simple case of zero anaphora. That is, given only the sentence

fu	sa	ira	ne ahan	ka koto	tiri
you	take	matter-	this	go court	then
	(cause)				

one doesn't know if the subject of ka is fu 'you' or ira ne ahan 'this matter.' The sentence might be translated either 'You take the matter and go to court then,' or 'You cause the matter to come up in court.' It is possible

that in cases like this one there is ambiguity. In many other sentences, however, it is very clear that the subject of the motion clause is the object of the preceding clause. In these clauses, as in the Kasem subclusters described by Pike (Pike, p. 66), the meaning of the unit as a whole is over and above the sum total of the meanings of the individual clauses.

The second difficulty is that causative constructions can be confused with the instrumental construction we are going to investigate next.

Consider the instrumental construction

Instr	Action
awu sa nzu	rang mba-ni
he take mouth	ask daughter-your

'He asks (with his mouth) for your daughter.'

In this sentence the familiar verb sa 'to take' could be considered as the catalyst or 'causer' of the action of the second clause, 'He causes his mouth to ask for your daughter.' In the majority of cases, however, the causative and the instrumental can be distinguished by formal criteria which will be stated later (Section 3.2).

Besides sa 'take (some graspable object)' and pu 'take (a collection of things),' a number of other verbs fall into the causative category: kunn 'call,' tur 'push,' shir 'pull,' ye 'grab,' fxen 'cut,' yata 'leave,' tom 'send.' Some examples of these forms in sentences follow:

Caus		Action		
S	P _c	O/S	P _m	
fu	kunn	injafu	ba	'You call your brother.'
you	call	brother-your	come	
andefu	tur	uwawu	ruka nawu	'The elders make his
elders	push	wife-his	go to-him	wife go to him.'
kisung	na	shir	awu tso	
rabbit	asp	pull	him come up	'The rabbit pulled him
				up.'
aba	fxen	ashwong	si tak	riben
they	cut	forests	go-down	ground
				'They cut down the
				forests.'

Still another variety of this type involves a non-motion clause in the action slot; for example:

S	P _c	O	P _i	Temp	
m	sa	wu	jabci	ire	'I sold it yesterday.'
I	took	it	sell	yesterday	
a	ye	fu	pa	kikang	'They force you to pay.'
they	grab	you	pay	by-force	
a	sa	jwumba	ci	tiri	'Then they started
they	took	beer	brew	then	brewing beer.'

The third problem with causative clusters is a relatively minor one but one which should be pointed out in a description of these constructions. Certain short causative constructions ending with a verb of motion such as ba 'come' or ru 'go' could easily be confused with single-clause constructions involving the sequence main verb-object-adverb, discussed in 2.2.1. For example:

Clause with		
Complex Verb Phrase:	awu mum icir tso	
	he dug yams up/mount	
Causative Cluster:	awu pu wuci ba	
	he take food come	

A third example, awu shir awu tso
 he pull him up/mount

is verb difficult to categorize, especially as awu has an animate referent. Here again, I suspect that such a sequence is ambiguous even to a Kuteb speaker. The majority of causative clusters have either a location tagmeme or an indirect object tagmeme in the filler of the Action Slot.

3.2 The instrumental construction is very much like the causative and can easily be confused with it. The structure is two-part, as follows:

Instrumental Cluster	-Instrument	-Utilizing Action
Fillers	S P _{inst} O	-P _t O

That is, the filler of the first slot is a clause with the instrumental predicate sa 'to take'⁸ and the object which is the instrument to be used in the action. The Utilizing Action Slot is filled by a transitive clause, which tells what is being done with the object of the first clause.

The following are examples:

Inst		Utiliz. Action
awu sa	siminti shin	tag wu nyanyang
he take	cement plaster	it well

⁸One clause presents some difficulty:

pu	kin-ikin	fa-ci	yang	wu ci	itawe
collect	something	block	stream-the	first	

'You block the stream off with something first.'

This is the only instance in which the first slot is filled by something other than sa. More instances of pu in this position may force us to broaden the filler class of the instrumental tagmeme slightly.

'He plastered it well with cement.'

uwawu sa bokati pu isa ruka yaṅ mbub
wife-his take bucket scoop sand go dump

'His wife scooped up sand with a bucket
and dumped it.'

awu sa nzu rang mba-ni
he take mouth ask daughter-your

'He requests (with his mouth) your daughter.'

awu sa irim shwu ahan tso ruka furu
he take grass thatch thus up go to end

'He thatches (the roof) like this with
grass right up to the top.'

Four main features distinguish this construction from the causative:

1) The second predicate refers to the subject of the first clause as its subject in the case of the instrumental cluster and to the object of the first clause in the case of the causative.

2) The second clause is transitive in the case of the instrumental cluster and motion (or rarely, intransitive) in the case of the causative.

3) The predicate of the first clause in the instrumental cluster must be filled by the verb sa, whereas the causative cluster has several more verbs occurring in the predicate slot of the first clause.

4) The causative cluster often has a locative or indirect object tagmeme expressed in the second clause; the instrumental rarely does.

3.3 Summary of Structural Features

Briefly summarizing the characteristics of both of these clusters as over against the other types of structures containing strings of verbs which were discussed in the preceding chapter, we find the following:

- 1) deletion of the non-initial subject.
- 2) a special relationship between the two clauses.
- 3) the subjects of initial clauses have distinct functions.
- 4) special verb classes filling the predicate slot of the initial clause.
- 5) frequent co-occurrence with location or indirect object in the case of causative.

3.4 A Further Note on Subject Deletion

In 2.1 above we discussed sequences resulting from deletion of non-initial subjects when they are identical with the initial subject. Our examples in that section included clauses with simple predicates. The phenomenon of subject deletion is not restricted, however, to two-clause sequences nor to clauses with simple predicates. It affects nearly all of the sequences discussed in Chapter Two, including causative and instrumental clusters. In order to get an accurate picture of the range of verb behavior in this language, it is important for the reader to see some longer sentences, in which all of the above structures are found. Some examples are:

S	P _m		P _t		O	Loc
ati	nwunn	rukwen	ba	bā	ira	Rimam ike
we	left	mountain	come	follow	Gospel	here

'We left the mountain and came here to follow the Gospel.'

S		P _m	P _t		
ucin	kisung m	cicang	ruka	ye	mbakunn
folktale-my		walks	go	catch	chicken

'My story is about the chicken.'

S	P _m	P _t	O
kisung	ru skun	ruka	tu inji
rabbit	go slowly	go	find elephant

'The rabbit went slowly away to find the elephant.'

S	P ₁	P ₁	Manner
nggog	ruka som	kujwub ra	ti kinzowu
pig	go sit	cry	by himself

'The pig went and sat by himself and cried.'

Causative

S	P _t		P _c	P _m
u	ba san	mbyiwu	ye pu iwag	ru
he	come free	bottom	take fish	go

'He comes, opens up the (trap) bottom, and takes out the fish.'

S	P _t		P _m
a	ruka	nggwafe ambyi kafe	ru ku ba
they	go	drink water turn	come

'They go drink water and come back.'

S	P _t		P _{caus}	P _m
itumu	ruka	wen ivye	su	ba
lion	go	kill animal	carry	come

'Lion went and killed an animal and brought it.'

S	P _i	P _t	P _m		
ande	shwu	putsan ni	ruka fob	ritug	
people	rejoice	follow you	go	reach	market

'The people follow you rejoicing to the market.'

S	P _t	O
kisung	ruka yetag	uji
rabbit	went took	rope

P _c (or Inst)	P _t	
sa yencab	ruka ca inji	ti kufxen
take end	go tie elephant	on foot

P _c (or Inst)	P _t	
sa	ruka ca fa iyem	ti kujwo
take	go tie hippo	on arm

'Rabbit took a rope, went and tied the end of it to the elephant's foot, and then went over and tied the hippo's foreleg.'

In regard to distribution, transitive, intransitive, and motion clauses as well as the instrumental and causative constructions seem to co-occur freely in these sequences. As we have seen, apparent cases of stative, locative, and possessive clauses in conjunction with other clauses were relegated to lower level structures. The following matrix indicates the various co-occurrences of the above clauses in sequences manifesting zero anaphora:

	Clusters				
	<u>Trans</u>	<u>Intrans</u>	<u>Motion</u>	<u>Caus</u>	<u>Instr</u>
Trans	X	X	X	X	
Intr	X	X	X		
Mot	X	X	X		
Caus	X	X	X	X	
Instr			X	X	

Further research on these sequences will undoubtedly reveal more significant distribution patterns than I have discovered.

Pike's argument for the existence of clusters seems to be based mainly on two closely related considerations: sharing of tagmemes and non-segmentability of clauses (Pike, p. 64). While evidence for the former is abundant in Kuteb, as the above illustrations indicate, the only evidence for the latter is in the case of the instrumental and causatives, discussed above.

It is difficult to draw a definite line between cases of compound predication in single clauses and mere zero anaphora of subject in the non-initial clauses of a sentence (especially in view of the probable historical development of the one from the other). In some cases it is clear that one or the other of these phenomena is involved; in others, there seems to be no non-arbitrary way of distinguishing them.

CHAPTER FOUR: FINAL SUMMARY AND CONCLUSIONS

In Chapters Two and Three I have attempted two things: 1) to show that many apparent verb strings are not clause clusters but familiar structures on a lower level, and 2) to bring forward evidence for considering the causative and instrumental constructions as clause clusters in the sense that Pike uses it.

The reason for the attention paid to the chapter on pseudo-clusters is that in Kuteb, verb stems are used as modifiers of different sorts without any obvious formal marker indicating their different functions. In many languages derived forms of verbs are used in various ways. These can be easily recognized by their affixes. In Kuteb, the definition of these verbal stems is determined solely by their position and non-occurrence with aspect particles.

Specifically, certain sequences were found to be Auxiliary--Main Verb, Main Verb--Adverb and Main Verb--Extension combinations, all handled as parts of a single complex verb phrase. Other sequences were analyzed as stylistic reduplication, recapitulated forms, and cases of unmarked embedding after the verb nung 'to see.' A small number were considered verbal compounds.

In Chapter Three I described the causative and instrumental constructions and suggested several reasons for considering these constructions significant units that may prove to contrast with sentence level structures. Briefly, in addition to the phenomenon of subject deletion shared by all the sentences under study, the clauses in the causative and instrumental sequences have a special relationship with a meaning above and beyond the sum of the meanings of the individual morphemes. This relationship is correlated with special classes of fillers manifesting the two tagmemes in these constructions. Furthermore, the clusters (especially causative) are typically manifested by certain peripheral tagmemes such as location or indirect object to a greater extent than simple clauses are.

Research on sentence structure in Kuteb, and particularly on the distribution of clauses will provide information that will help us to characterize the sequences studied here much more completely.

BIBLIOGRAPHY

BIBLIOGRAPHY

- Abraham, R. C. The Idoma Language. London: University of London Press, 1951.
- Ansre, Gilbert. "The Verbid--A Caveat to 'Serial Verbs,'" Journal of West African Languages, III:1 (January, 1966), 29-32.
- Bamgbose, Ayo. A Grammar of Yoruba. Cambridge: Cambridge University Press with the West African Languages Survey and Institute of African Studies, Ibadan, 1966.
- Christaller, Rev. J. G. A Grammar of the Asante and Fante Language called Twi. Ridgewood, New Jersey: Gregg Press, 1964. Originally published in Basel, 1875.
- Elson, Benjamin and Velma Pickett. An Introduction to Morphology and Syntax. Santa Ana: Summer Institute of Linguistics, 1962.
- Hockett, Charles. "Potawatomi Syntax," Language, XV (1939), 235-248.
- Hoffmann, Carl. A Grammar of the Margi Language. London: Oxford University Press, 1963.
- Jacobs, Gilian. "The Structure of the Verbal Clause in Bimoba," Journal of West African Languages, III:1 (January, 1966), pp. 47-53.
- Longacre, Robert E. Grammar Discovery Procedures. The Hague: Mouton and Company, 1964.
- _____. "The Notion of Sentence," Languages and Linguistics, Georgetown Monograph Series No. 20, 1967, pp. 15-26.
- Pike, Kenneth L. Tagmemic and Matrix Linguistics Applied to Selected African Languages. United States Department of Health, Education and Welfare. Washington: Government Printing Office, 1966.
- Roberts, Thomas H. "Noun Phrase Substitutes and Zero Anaphora in Mandarin Chinese." Unpublished Doctoral Dissertation, The University of Hawaii. Ann Arbor: University Microfilms, 1968.

- Sapir, J. David. A Grammar of Diola-Fogny. West African Language Monograph No. 3. Cambridge: Cambridge University Press 1965.
- Swift, Ahaghotu, and Ugorji. Igbo Basic Course. Foreign Service Institute, Washington, D. C. 1962.
- Ward, Ida C. An Introduction to the Yoruba Language. Cambridge: W. Heffer, 1952.
- Welmers, William E. A Descriptive Grammar of Fanti. Philadelphia: University of Pennsylvania, 1945.
- _____. Jukun of Wukari and Jukun of Takum. Occasional Publication No. 16. Ibadan: Institute of African Studies, University of Ibadan, 1968.
- Westermann, Dietrich. A Study of the Ewe Language. Translated by A. L. Bickford-Smith. London: Oxford University Press, 1930.
- Williamson, Kay. A Grammar of the Kolokuma Dialect of Ijo. London: Cambridge University Press with the West African Languages Survey and the Institute of African Studies, 1965.
- _____. "The Syntax of Verbs of Motion in Ijo," Journal of African Languages, III:2 (1963), 150-154.

APPENDICES

APPENDIX I

The following symbols and abbreviations are used in this thesis:

+	obligatory	IO	indirect object
±	optional	l	locative
:	filled (manifested) by	L(oc)	location tagmeme
/	or	M	modifier
=	consists of	m(ot)	motion
a (with O or S)	actor	MV	main verb
Accomp	accompaniment tagmeme	NP	noun phrase
adv	adverb	O	object tagmeme
asp	aspect	p	possessive
att	attitude	P	predicate tagmeme
Aux	auxiliary	Phr	phrase
c	cause, catalyst	pn	pronoun
c (with aspect)	continuative	Poss	possession tagmeme
Cl	clause	recap	recapitulated
cop	copulative	s	stative
e	equative	S	subject tagmeme
Equat	equation tagmeme	t, tr (with Cl, P, VP)	transitive
ext	verbal extension	t (after S)	topic
f (with aspect)	future	t (with aspect)	tentative
g	goal	T(emp)	temporal tagmeme
HS	head slot	VP	verb phrase
i	intransitive	vs	verb stem
Inst	instrumental tagmeme		

Appendix II

The following are samples of texts from which the data for this thesis were taken. Verb phrases and clause strings of the types studied above are underlined.

Mbakunn ti Inji Chicken and Elephant

Icin kisung-m cang cang ruka ye inji ti
tale rabbit-my walk walk go catch elephant and

mbakunn. Aba shan shan tetso basi, aba na
chicken they argue argue together saying they would

ruka ci ken. Mbakunn ri te inji ri basi awu na
go eat thing chicken say to elephant saying he

skab pu wu ti ken-ti-ci. Inji ri ba, awu na
surpass him with thing-eat elephant said he

skab pu mbakunn ti ken-ti-ci. Inji ba "y'a
surpass chicken with thing-eat elephant said it-if

si ahan, ati ru ken-ti-ci." Aba ruka fob wo ken-ti-
is thus, we go thing-eat they go reach place thing-

ci. Inji ruka som wog sang itu ti ti menn.
eat elephant go sit place husk palm and swallow

My folk tale is about the elephant and the hen. They had an argument and said they would go eat. The hen told the elephant that she surpassed him in eating. The elephant said that he surpassed the hen in eating. The elephant said, "Okay, let's go eat." They went to the eating place. The elephant went and sat by some palm husks and began eating.

Mbakunn ruka ci nawu, ama, pitang, pitang, pitang.
chicken go eat his also little little little

Bata ninung ahan rishwu na inji can pu. Inji
after awhile stomach of elephant fill comp. elephant

ri basi a na ruka nggwa ambyi. A ruka nggwa fe
said they go drink water they go drink-up

ambyi kafe ru ku ba. Inji ruka fur na kicwog wo
water turn coming elephant go fold lie sleep place

uwum. Mbakunn num num kika be. Awu ta ti wa na
shade chicken tire tire yet not he be inside of

ken-ti-ci. Ribyan penn ba ku tsan inji tiriyib.
thing-eat tick fly come alight elephant on-eye

Mbakunn ru ba pyera ribyan wu ti ku tsan riyib na
chicken come peck tick the which alight eye of

inji. Inji ri ba "mbakunn, fu can fu ti
elephant elephant said chicken you full with

The hen went to her eating also, little by little by little. After awhile the stomach of the elephant filled up. The elephant suggested that they go for a drink of water. They went and drank water and returned. The elephant went and lay down to sleep in a shady place. The hen was not tired yet. She was still in the process of eating. A tick flew up and alighted on the elephant's eye. The hen came and pecked the tick which had landed on the elephant's eye. The elephant said, "Chicken, aren't you full

• Stress is a response to a stimulus that is perceived as a threat or challenge.

• Stressors are the external factors that trigger a stress response.

• Acute stress is a short-term response to a stressor.

• Chronic stress is a long-term response to a stressor.

• Stressors can be physical, psychological, or social.

• Stress can have both positive and negative effects on health.

• Stress can lead to a variety of health problems, including heart disease, high blood pressure, and depression.

• Stress can also lead to a variety of behavioral changes, such as increased smoking, drinking, and eating.

• Stress can be managed through a variety of techniques.

• Stress management techniques include relaxation techniques, such as deep breathing, meditation, and yoga. They also include lifestyle changes, such as exercise, a healthy diet, and adequate sleep. Additionally, stress management can involve seeking support from friends and family, or a professional counselor.

ken-ti-ci kika be a. Afu mbakunn skab pu f'ame
thing-eat yet not ? you chickens surpass me

ti ken-ti-ci. Tsikunn yaka ru ye uwe ame ri te
with thing-eat from today go ahead I'll tell

anyisu-m ba, 'mbakunn na skab pu ati inji
children-my saying chicken surpass us elephant

ti ken-ti-ci.'"
with thing-eat

Kurang ti Ujwong
Crow and Cat

Ucin kisung-m ruka ye kurang ti ujwong. Ujwong
tale rabbit my go catch crow and eat cat

nung kurang som tsan risu kutuku apupwen. Kurang yesu
saw crow sit perch top tree sky crow hold

ivye nzu nawu. Ujwong ruka mbyi kutuku tu kurang
meat mouth his cat come bottom tree find crow

yet? You, Chicken, surpass me in eating. From now on
I'll tell my children, 'Chickens surpass us elephants in
eating.'

Crow and Cat

My folk tale is about the crow and the cat. The
cat saw the crow sitting high up on the top of a tree.
The crow was holding a piece of meat in his mouth. The
cat came to the bottom of the tree and found the crow

...the ... of ...

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...the ... of ...

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...the ... of ...

...the ... of ...

...the ... of ...

som tsan atang. Awu ri te kurang basi "ire
sit alight thereon he said to crow saying yesterday

ame fxen kucang-fu ti fu yag nyang timambe. Ame tu me
I hear song-your that you sang good very I find I

fanggo ti m ba fxen acang-fu ti fu yag be.
way that I come hear songs-your that you sing not

F'a cwera fu mamra ci kucang-fu ayi cwucwo."
you if agree you finish song-your again

Kurang yan nzu ta mbagta ti wu yag acang,
crow open mouth wide that he sing songs

basi "kurang, kurang, kurang ufang usi." Ivey kansi
saying crow crow crow ? ? meat fall-down

ba pub riben. Ujwong kwera. Kurang ri basi
come bang! ground cat snatched crow say saying

"sa ken-m ti jwunnsi ku ba me." Ujwong ri
take thing-my that fall come to me cat say

sitting there on top of it. So he said to the crow,
"Yesterday I heard the beautiful songs you sang. I
haven't found an opportunity to come hear the songs you
sing. If you agree, finish your song."

The crow opened his mouth wide to sing, saying
crow, crow, crow The meat fell to the earth.
The cat snatched it up.

The crow said, "Give me my thing back."

The cat said,

• *Staphylococcus aureus* (Staph aureus) is a common cause of skin infections, such as abscesses, impetigo, and cellulitis.

• *Streptococcus pyogenes* (Strep pyogenes) is another common cause of skin infections, including streptococcal impetigo and cellulitis.

• *Pseudomonas aeruginosa* (Pseudomonas) is a common cause of skin infections, particularly in people with weakened immune systems or those who have been in contact with water.

• *Candida albicans* (Candida) is a common cause of skin infections, particularly in people with weakened immune systems or those who have been in contact with water.

• *Aspergillus fumigatus* (Aspergillus) is a common cause of skin infections, particularly in people with weakened immune systems or those who have been in contact with water.

• *Trichophyton rubrum* (Trichophyton) is a common cause of skin infections, particularly in people with weakened immune systems or those who have been in contact with water.

• *Microsporum canis* (Microsporum) is a common cause of skin infections, particularly in people with weakened immune systems or those who have been in contact with water.

• *Dermatophytes* (Dermatophytes) are a group of fungi that cause skin infections, including tinea and ringworm.

• *Malassezia* (Malassezia) is a common cause of skin infections, particularly in people with weakened immune systems or those who have been in contact with water.

• *Trichophyton tonsurans* (Trichophyton) is a common cause of skin infections, particularly in people with weakened immune systems or those who have been in contact with water.

• *Microsporum audouinii* (Microsporum) is a common cause of skin infections, particularly in people with weakened immune systems or those who have been in contact with water.

• *Trichophyton mentagrophytes* (Trichophyton) is a common cause of skin infections, particularly in people with weakened immune systems or those who have been in contact with water.

basi "ee! Ame tu pu m kutunn-me roo."
saying oh! I find comp. reward-my

Ujwong ter wu mbyi kutuku atang. Nni can
cat run bottom tree there this why

t'a ri ba fu na fxen acang fxen tawe ti fu na
that they say you hear songs hear before you

sang ise.
enter dance

Fishing (Partial text)

iyang tiyang ta ike be, se iyang ti tinyang.
streams big be here not only streams little

f'a shung ti fu ye uwag se fu ru fanggo
you-if want that you catch fish only you go road

ti ren itawe, ka nina pangmasi atsab ifan atsab ita
distant first go lie for example week two week three

"Oho! I have found my reward!"

The cat ran away from the tree.

This is why they say: you should hear the song
well before you enter the dance.

Fishing

There are no big streams here, only little ones. If you
want to catch fish, you have to go a long ways, and stay
for two or three weeks

kokwa ishān itawe fu me iye iwag. Amma anati ike,
or month before you will catch fish but ours here

kin ti ti ye atang ta be, se kugiya, ti fu
thing that we catch thereon is not only hook and you

mumum ririm kokwa abyinn icwung ti uwa-wu ne ahan
dig worm or innards mice that inside-him thus

ko asham ti wa wu ne ahan, ti fu ka ter
or guts that inside him thus and you go impale

atang m ka ye iwag atang te yi. Usin,
thereon and go catch fish thereon with it dry-season

anda ku ruka pa ipan m ku ye m sa ruba.
women go make-dikes then catch then take come

Kokwa ti usin a kufam arom nung ti a byinn
Or else dry-season men know that they make

ajwug, u pu ajwug ruka si wā ubunn. Iwag ku ba
traps and put traps go descend in pool fish come

or a month before you really catch fish. But as for us here, we use only hooks, and you dig up worms or mouse intestines, and you impale them (on the hook) and go catch fish with it. In the dry season, the women go make little dams (for catching fish) and catch some and bring them. Or else in the dry season the men make traps and lower the traps into pools. The fish come

• The first part of the document is a list of the names of the people who were present at the meeting.

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sang atang, a ku ye. Ikinbe, a nde ajwug-anyi;
enter therein they catch otherwise they make trap-teeth

a pu awan nya-itu sang wa wu. a sa ruka
they put fruit palm enter into it they take go

tsi-si kubunn. (itub ti iwag ti a tsi
stand-down pool catfish and fish that they stand

ne ahan) a ba nung ayan itu ne ahan a sang yi
thus if come fruit palm these they enter

atang. Ba kiskinn fu ruka vera wu ruba, u ba san
thereat come-morning you go take it come and come free

mbyi wu, ye pu iwag ne ahan ru. u pu ayan itu
bottom its take fish these go then put fruit palm
(out)

yine si ti atang u sa jwunnsi ta atang.
this down therein then take throw-fall there

Ni kin ti a ku nde ne a ku
this is thing that they asp. do in order that they asp.

ye iwag ike.
catch fish here

enter the trap, and they are caught. Otherwise they make tooth-traps. They put palm fruits into them, and put them down into a pool. Catfish and other fish that are there, if they see these palm fruit, they enter it. When morning comes, you go pull it up, open the bottom and take out the fish. Then they put palm fruit into it again and throw it down (into the pool) there. That is what they do by way of fishing here.

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