

A COMPARATIVE STUDY OF FOUR

THAGICŪ VERBAL SYSTEMS:

The Inflectional Systems

of

Kikuyu, Kamba, Embu, and Mwimbi

BY

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ABSTRACT:

Analytic internal comparison of the Kikuyu, Kamba, Embu, and Mwimbi verbal systems requires detailed, systematic, and rigorously based presentation of points of similarity and dissimilarity. Over-emphasis or neglect of any dialect, area of the system, or point of similarity or dissimilarity would affect the validity of the comparison.

Chapter I states the purpose of the investigation and specifies its field. Here are laid down the definitions and criteria underlying the analysis and providing for systematic and invariant presentation. This chapter also describes the general pattern of the four systems.

Chapters II and III list the "endosyntactic unities", or sets of structurally identical constructions, for the "regular" and habitual/continuative systems, respectively. Chapter IV discusses the "morphologic unities", or sets of structurally identical morphemes, found as constituents of these endosyntactic unities. These chapters amount to a systematic presentation of patterned similarities between dialects, but also discuss points of difference.

Chapters V and VI complete the comparison proper, describing unpatterned similarities and differences, respectively. It is interesting to note that only similarities seem to show systematic patterning; differences cannot be presented in such a framework.

Chapter VII discusses the deductions possible from the results of comparison. Here it is found that few historical conclusions of probable validity can be drawn from the data. Chapter VIII

summarizes and concludes the presentation.

Appendices I-IV present the data on the four verbal systems which served as a basis for comparison. Appendix V gives the forms of subjective and objective prefixes, eliminated from the main comparison because of their numbers and because they belong to the nominal system, rather than the verbal.

The comparison shows the systems are quite similar, though less than anticipated. It also illustrates the feasibility of comparison of verbal data, at least in these dialects by the methods and criteria used.

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CHAPTER I: INTRODUCTION

Section 1 : Scope of the Study

A. Type of Comparison:

Though this is to be, as the title suggests, a comparative study of four Thagicū¹ verbal systems, it is necessary to specify in detail the aims, limitations, and methods of the study. One must first specify in what sense this is "comparative".

There are two main senses in which the term "comparative", as it is used in linguistic contexts, may be understood. One involves what might be called "external comparison". This consists of the cataloguing of phenomena in the language under investigation for which there exist counterparts in other languages. Such a comparison is, in essence, a description of a single language, reference being made when desired to similar forms or functions in a fairly wide range of languages, with no concentration upon any one. The other type is "internal comparison", in which a group of two or more languages is studied, rather than a single linguistic system. In this case each is described in some detail, and the descriptions are compared. This is intended to be such an internally comparative study of the four dialects under investigation.

An internal comparison may be either simple or analytical. If simple, it consists of the mere juxtaposition of the descriptions. If, however, it is analytical, as this will be, then it is necessary to indicate the points of similarity and difference between the systems

compared. If these points are not specifically indicated, the comparison differs not at all from the simple juxtaposition of data described above. If either similarities or differences are indicated alone, the description is misleading. If there is to be any justification for the presentation of an analytical internal comparison, it must be the resulting information on the degree of resemblance between the objects compared. Clearly, to state similarities without giving the number and nature of the differences would be to give a false picture of the facts, and vice versa.

In this study, which is intended to be such an analytical internal comparison, the principle stated above will be followed as far as possible. Although in the course of description the similarities will be used as the basis (because in this case they are more systematic and better suited to serve as a framework than the differences), specific points of divergence will be indicated throughout the study. More general differences will of course be stated as well, in as full a form as possible. In assessing the degree of similarity between systems, both will of course be taken into account.

B. Dialects Compared:

The dialects studied herein are Kikuyu (specifically Southern Kikuyu), Kamba (of the Machakos area), Embu, and Mwimbi. The choice of these specific dialects from among the Thagicú group was dictated by necessity more than any other factor. These four are the dialects with which I have been able to work extensively and directly. Though

I have had access to material on Tharaka and Imenti which could have been presented here, I have not had the opportunity to consult with native speakers of those dialects. If, therefore, I had decided to attempt to include them, the number of inaccurate or inadequately based statements in the descriptions of those dialects would have been significantly greater than the number of such statements in the dialects actually treated. Only with the four named was I able to work directly.

Besides this, a further practical consideration was the fact that any increase in the number of dialects treated would automatically increase both the length and the complexity of the description. With four dialects it has proved possible to present an adequate description within reasonable limits, without devoting less attention to any of the four. If, however, treatment of six dialects had been attempted, it would have been impossible to present an adequate description without greatly increasing the length and complexity of the study. Otherwise, it would have been necessary to neglect one or more of the dialects in the amount of attention received, or to reduce the field of investigation in some other way. Considering the resemblance of the Thagicũ dialects to one another, also, it is doubtful whether the addition of two more dialects to the group being compared would make any significant difference in the result, especially when the data from the two in question could not possibly be considered equal in number or reliability to the data on the four in fact compared here.

Although the choice of dialects was thus determined by necessity,

rather than the actual desirability of including those specific members of the Thagicũ group, it was a fortunate one. Kikuyu is the dialect of the most important tribe in the group. Its verbal system is at once perhaps the most complex, and the one showing the highest degree of internal parallelism, of the dialects known to me. Kamba has undergone a number of historical changes, phonologic and other, which have made it the Thagicũ dialect (when Segeju, in all respects the most divergent dialect, is excepted) which shares the fewest features in the verbal system with the other dialects. Embu is a fairly conservative dialect, and is geographically central. In its verbal system it shares with Kikuyu certain features which Kamba and Mwimbi lack; with Kamba it shares yet other features not found in Kikuyu or Mwimbi; and there are similarities with Mwimbi not shared with Kikuyu and Kamba. In addition, it has relatively few features not shared with at least one of the other dialects, and serves excellently as a "missing link" connecting the other three. Mwimbi is a member of the Northern sub-group of Thagicũ, and is important as a contrast with the three Southern dialects listed above. Admittedly, Northern Thagicũ is by no means as well represented as might be desired. However, from what is known to me of other forms of Thagicũ it seems safe to state, as some justification of the choice, that it is improbable that any other group of four dialects could be significantly more representative of Thagicũ as a whole.

C. Portions of the Verbal Systems Compared:

The comparison has been restricted to the verbal systems of the four dialects for the simple reason that a complete description of

even one of the dialects would, in the time and space available, be an impossibility. Some limitation is necessary, especially since, in comparing four dialects, discussion of a single feature may often require far more than four times as much space as would be devoted to it in the description of a single dialect. The choice of the verbal systems, rather than any other, was made for a less practical reason. Most linguistic comparisons limit themselves to phonology (in some cases to specific sub-sections of the phonology) or to the lexicon. While such a comparison based on the Thagicũ dialects would have been possible, it seemed desirable to attempt a comparison of some other features of the dialects in question, to see whether comparison is possible, and also whether it is possible to base conclusions as to degree of similarity and probable history of the dialects, such as can often be based upon the results of phonologic and lexical comparison, upon the results of comparison of other systems. An adequate comparison of syntactic features would involve far more collection and analysis of data than was desirable. The nominal systems of the dialects are so similar that, by simply revising the orthography and the shapes of a few morphologic elements, the description of one dialect would very nearly suffice for any other; a comparison would, therefore, have little value. In the verbal systems, however, it was clear that there existed enough readily accessible material to make comparison feasible, and that, while the degree of similarity was great enough to make comparison possible within a reasonable space, there also existed enough interdialectal divergence to make such comparison fruitful.

Even with this restriction to the verbal systems, further limitation is necessary. The number of items in each dialect which could be considered to be part of its verbal system would require more space to describe than has here been devoted to the four together. In order to limit the description, and because the data available on certain areas of the verbal systems are in some of the dialects very few in number, it is necessary to concentrate on what seems the central, most basic portion of the complete systems. The following list of definitions and restrictions gives the exact portion of the verbal systems studied, the causes for restriction of the study to these areas, and provides the necessary definition of the meaning of the term "verbal system" as used in this study:

1. Only constructions² having verbal function are included. For this to be meaningful, "verbal function" must in turn be defined. While it could probably be defined in functional/semantic³ terms, it is possible, and far more convenient, to present equally valid formal⁴ criteria which apply in this group of dialects. It should be noted that while they are satisfactory for the four dialects herein described, it cannot be presumed that they would necessarily apply equally well to any other language. Even in the description of certain other Thagicú dialects certain modifications might be necessary. The criteria are:

a. Any construction which involves that series of allomorphs⁵ of the concordant⁶ morphemes⁵ in which the representative of Class 1⁶ has the form a- may be said to have verbal function⁷.

b. Any construction which differs from one of the ones included in

section a. only in the series of allomorphs of the concordant morphemes involved, or only therein and in tone, may be said to have verbal function, provided that the series of allomorphs of the concordant morphemes used is not one in which the representative of Class 2 has the form $a_{-}^{\frac{8}{}}$.

c. Any construction not included in the above which must (or may optionally) include that series of allomorphs of the concordant morphemes in which the representative of Class B is -kũ- and that of Class 1 is -mũ- may be said to have verbal function, provided that the construction in question does not also include a series of allomorphs of the concordant morphemes in which the representative of Class 2 is a-, and also that the construction can never be found functioning as subject of a sentence $\frac{9}{}$.

2. In order to restrict the field of investigation, only constructions consisting of a single structural word are included. It is necessary here to define "structural word". In all four dialects it is possible and reasonable to define the term "word" in at least two ways. The word division recognized in the orthographies is irrelevant - much variation is permitted, and the boundaries do not necessarily coincide with linguistic facts. Of the two types of word as linguistically defined, one is phonologically based: any construction, or group of linguistic units, which can be pronounced in isolation without pause and would in isolation normally be so pronounced, and which cannot be broken down further into a series of components all of which can occur in isolation, may be considered to constitute such a phonologic word.

A number of phonologic phenomena, including Dahl's Law, coincide in range of application with the "word boundaries" established in this way. On the other hand, one may also define a "word" as including only those members of a construction which cannot occur separated from one another. Stated differently, items included in the same "phonologic word", as above defined, may not be considered to be part of the same "structural word" if it can be shown that they may also occur in different phonologic words in the same utterance without any significant change in their respective forms, functions, and interrelationship. Thus a "phonologic" word consists of a structural word together with any proclitic or enclitic structural words, which, though not intimately bound to the structural word in question, may not stand alone.

Separability can fairly readily be shown to exist, even in the cases of certain proclitic and enclitic elements whose frequency with verbal constructions is high, though it is low elsewhere. Most accounts of Thagicũ verbal systems, for example, include the element $\underline{\hat{n}i}$, which serves as a "stabilizer"¹⁰ and is very commonly found with verbs, particularly in the Southern dialects, and the element \hat{i} (and its Mwimbi equivalent $\underline{\hat{n}i}$) which is found exclusively with verbal constructions and indicates that a command is addressed to more than one person, though they are not necessarily to be involved in the action ordered. These are normally considered to be a part of the structural word, if one may use the term in this context. However, though they are important, and must and will be discussed to some extent, they can be shown to be

separable, and not part of the structural word. The Kikuyu verbs nĩ-ndĩraarugire 'I cooked' and tũruge-i 'let us (you plural and I) cook' are single units in that they cannot be subdivided into components each of which can stand alone, and thus each is a phonologic word. In the first case, however, one can also find nĩ-rĩo ndĩraarugire 'then I cooked', where the proclitic nĩ and enclitic ri combine in one word, phonologically defined, distinct from the verb ndĩraarugire. When such separation occurs there is no significant alteration in either form or function/meaning of the verb, nor does it alter its grammaticality. Similarly, if two commands addressed to more than one person occur in the same sentence, normally only the last verb has the enclitic ĩ. In Kikuyu one finds, besides the unlikely tũruge-i tũkarĩe-i 'let us (you plural and I) cook and then eat', tũruge tũkarĩe-i, of identical meaning, in spite of the fact that only for the last verb is it indicated that the command is addressed to more than one.

Besides this separability, there are phonologic phenomena whose range coincides with the boundaries of the structural word, just as others confirm the boundaries of the phonologic word. Dahl's Law, in fact, allows one to distinguish the two types of word on the basis of a single phenomenon. In Kikuyu, where this "law" takes the form of a shift of k to g preceding certain consonants, Dahl's Law applies within the boundaries of both phonologic and structural words, but not outside. One can thus establish that the form kootarugire 'didn't you cook ?!!' consists of two phonologic words (kaĩ ũtarugire, with abnormal vowel coalescence), while the parallel kaana gootonga

'child of wealth' consists of two phonologic words, not three, as it is generally written in standard orthography (kaana gaa ũtonga). However, if Dahl's Law applies within the boundaries of a structural word, no proclitic with initial k will be affected: compare with kaana gootonga 'child of wealth', above, the phrase kaana kaagĩtonga 'child of a wealthy man'. Here, since the kĩ- nominal prefix of gĩtonga 'rich man' has been affected by Dahl's Law, the consonant of the proclitic kaa is unchanged, because it is outside the structural word. If a series of prefixes containing k occurs within the boundaries of the structural word, however, all are affected. Compare with kaana kaagĩtonga (two phonologic words, three structural) the single phonologic and structural word gagĩgĩgatũma 'and so he sent it', whose morphologic composition is ka+kĩ+kĩ+ka+tũm+a. The same phenomenon, incidentally, allows one to ascertain the beginning of a verb stem. Phenomena like these are found in all four dialects, clearly distinguishing phonologic words from structural.

Limitation to a single structural word, besides eliminating items differing from one another only in inventory of co-occurrent proclitics and enclitics, removes from the inventory of items to be compared an immense number of periphrastic constructions. All four dialects have a variety of compound verbal constructions, ranging from combinations of auxiliary verbs with verbal nominals to series of identical constructions, all stems but the last being those of auxiliaries. It is possible to find quite normal constructions of four or five words. Besides the fact that inclusion of such items

would many times multiply the length and complexity of the comparison, the data available on certain types of such compound constructions are inadequate. It has therefore been decided to omit them.

3. No construction which occurs only in compound constructions consisting of more than one structural word is included, unless it can be separated from the other elements in the construction by interposed items. This is necessary in order to eliminate certain constructions which are never found in isolation and which, although they themselves consist of a single structural word, could not be adequately described without also describing the larger constructions in which they occur. The exception made for separable members of larger constructions, however, allows one to include in the description certain items, such as constructions found only after the proclitic ní, whose omission would significantly affect the completeness of the description.

4. The discussion is limited to inflectional elements, stem-formation 11 not being treated. Like other Bantu languages, Thagicũ includes a set of morphemes used in the formation of derivative verbal stems. For example, in Embu one can derive from the simple verb stem -ón- 'see' such stems as -ón-w- 'be seen', -ón-i- 'show', -ón-er- 'see on behalf of', -ón-ag- 'see often', -ón-ek- 'be visible', -ón-an- 'see one another', as well as combinations such as -ón-ag-ĩr- 'see for often', -ón-an-i- 'show one another', and so forth. All of these stems may co-occur with certain combinations of elements which might be termed inflectional, which indicate time, subject, object, and other relevant matters without affecting the basic form or meaning of the stem.

The systems involved in inflection and in stem-formation are entirely distinct from one another in form and function. Neither is affected significantly by the other. Interactions in form do occur between inflectional elements and stems, but all items of similar shape, whether they can be identified as having stems formed by addition of a stem-formant of the type described above or not, are treated identically, for all practical purposes. In some cases the inventories of constructions found with stems of different types differ considerably, but this is not necessarily the result of the presence of such formants. The two systems are separate, and there can be no objection to separate discussion. To treat stem-formation adequately it would be necessary to differentiate between stems actively produced by the addition of a functional (or "operative") stem-formant to a basic stem, stems which, though once so produced, have come to be treated as fixed combinations with specialized meaning, and stems apparently, but not in fact, containing such a stem-formant. The descriptions of associated function/meaning and effects upon the function/meaning of the stems to which the formants are attached, as well as statements of degree of freedom of co-occurrence of each formant, would be extremely complicated, and have many of the characteristics of a lexicon.

5. Of the large number of classes of verb stems found in each of the four dialects only two will be described. In each dialect, classes of verb stems may be established on the basis of the constructions in which stems of each class may participate. While these inventories are, for the most part, similar, they differ to such an extent that for an

adequate description it would be necessary to state the complete inventory found with each class, with consequent wasteful duplication of statements where points of resemblance do occur. In order to avoid such duplication, and to restrict the scope of the study, only two such classes are discussed here. These have been selected on the basis of the extent to which they are representative of the classes as a whole.

The classes in question are that set of verb stems which might be called "regular" and the set of stems in each dialect which differs from the regular formally only in the additional presence of a stem-formant -ag- (in Kamba -a-) and functionally only in an additional semantic element involving prolonged action, whether habitual or continuous. The class of "regular" stems is more or less arbitrarily so named; it is defined in each dialect as the set of verb stems whose conjugational characteristics are identical with those of such verb stems as -rúg- 'cook' and -rím- 'cultivate' (in Kamba, -ú- and -ím-). This class has been selected for treatment for the following reasons:

- a. Its inventory and formal and functional characteristics are essentially the same in all four dialects.
- b. In each dialect the majority of verb stems probably belong to this class.
- c. In each dialect this shows the least amount of formal ambiguity. In other classes it often happens that two associated functions here expressed by two distinct forms are expressed by a single construction.
- d. So far as is known, in no dialect does there occur a construction found with regular stems but not having a formal and functional

equivalent used with some other class. This is not true of other classes.

In view of these characteristics, it would be reasonable to limit discussion to this class alone. The reasons for the inclusion of the second class are the following:

a. The inventory of constructions in which such stems occur is drastically different from what is found with regular stems. Where formal equivalents occur, functional differences are found. Where there are functional similarities, the forms differ significantly.

b. The stems are clearly active formations from "regular" stems, differing only in the addition of the stem-formant and semantic element mentioned.

c. Besides this, and in part because of this, the two are to some extent complementary. In most grammatical works on the dialects the stem formant involved has been treated as a mere inflectional element, and forms containing it as separate constructions in the "regular" inventory. While it can be shown that the formant in fact is not a part of the inflectional system, this identification clearly increases the advisability of its inclusion.

6. "Emphatic negative" constructions will not be treated. In all four dialects are found certain constructions resembling normal negative constructions in form, though differing in tone. These, unlike the constructions they resemble, are affirmative in function. They are used almost exclusively in emphatic utterances, and have some of the characteristics of surprised questions, so that they are in some ways parallel to the English "You don't say !! " and "He didn't!!", which

also are negative in form but emphatically affirmative in function. Though many of these have formal counterparts among actual negative constructions, others lack such parallels. Since much further study of these forms would be necessary before an adequate description could be presented, all such constructions have been omitted.

7. Certain other sections of the four verbal systems have not been discussed in full, primarily for reasons of economy. Instead, they have been described together with formally parallel constructions belonging to other sub-systems. A full statement of the portions so treated and justification of this procedure will be given below in the general description of the four systems.

Section 2 : Orthographic Conventions

A. General:

Although the standard orthographies of the four dialects form the basis of those to be used herein, certain modifications are needed. Though adequate for most purposes, the orthographies do not indicate tonal distinctions, and indication of length is rare and unreliable. For the purposes of this study, it has proven convenient to use, in different circumstances, three distinct modifications of these standard orthographies:

1. In quotations from text consisting of one or more words (however defined) the only difference from the standard orthographies will be in the consistent indication of vowel length by doubling the appropriate letter. Thus the word for 'child', most frequently written kana, will be cited as kaana, and so forth. Tone will not be indicated in such cases, because in many cases, though the structural tones of components of the items in question may be known, the tones actually realized are not available. Vowel coalescence across the boundaries of structural words and the results of rapid speech also will not normally be indicated in such citations.

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2. In citing individual elements or groups of elements smaller than complete constructions a slightly different system will be used. Length will here be indicated normally by a colon placed after the long vowel. In the case of the extra-long vowels of Kamba, a distinction will be made, these being indicated by doubling the vowel sign. By this means one can distinguish, in Kamba, between the elements -na-, -na:-, and -nee-, of

three distinct degrees of length. In this type of citation tone will occasionally be indicated, but only where one can be absolutely certain that the tone indicated is associated with the element in question. To represent boundaries between elements a hyphen will be used (as in the verb stem -on-ag-îr-, cited above). In some cases such boundaries are uncertain; it is often doubtful whether one should consider an element to consist of a single unit of two syllables (or having a long vowel) or of two monosyllabic, short-vowelled units. The following criterion applies in such cases: if one can consider the unit or item in question to consist of a consonant followed by a long vowel, it will be treated as a single unit. If the vowels are unlike, or if there occurs a non-initial consonant (as in the case of -a-na-, whose status is uncertain and which is treated tentatively as if consisting of two elements), it will be treated as two units, unless there is proof of the contrary. If, however, vowel coalescence occurs, even if it is known that there are two elements present, the result will be written as if a single unit, though the fact of its complex nature will be stated.

3. The orthography used in citing construction-patterns will differ from both of the preceding. As in section 2 above, three degrees of vowel length will be distinguished, marked in the same way. Tone will be indicated throughout, except where one of the constituents is not a single morpheme, but a symbol representing a set of mutually exclusive morphemes, such as the verb stems (-V-) or the subjective prefixes (S-). Such symbols will be marked to indicate tone only when in a given construction any representative of the class of morphemes in

question bears a given tone, whatever its basic tone may be. Here boundaries between units are indicated not by a hyphen but by a plus sign (+). In the case of constructions where the verb stem is habitual/continuative with stem-formant -ag-, however, the verb stem will be indicated not as -V- but as -V-ag-, and a hyphen will be used between the symbol -V- and the formant -ag-, as in the Embu construction FB.Ola, written S+a+V-ag+a.

B. Specification of Symbols:

In all cases the symbols given here will be used to represent vowels, consonants, and tones. For the most part, they correspond to those used in the standard orthographies, with, of course, the exception of the tonal symbols:

1. Each dialect includes seven contrasting vowels, written as i, ĩ, e, a, o, ũ, and u. The second and sixth of these are intermediate in point of articulation between the first and third and fifth and seventh, respectively. The tilde (~) used to distinguish them does not indicate nasalization, but quality. Four of the vowels, i, ĩ, ũ, and u, have corresponding semivowels or glides. Though not structurally distinct from the vowels, the standard orthographies sometimes distinguish them. The symbol y is used in all dialects for the glide equivalent of ĩ in initial or intervocalic position. In Kamba it is also used post-consonantly, and is also used (in Kamba only) to represent the glide equivalent of i. For the glide corresponding to ũ all dialects use w in all environments, except following r in

conservative Kikuyu orthography. In Kamba the glide equivalent of u is written w', the apostrophe distinguishing it from w. Otherwise, the glides are not distinguished from the corresponding vowels.

2. The consonants found in the four dialects are those shown below:

		b/v			m	mp	mb		mv
		th							nth
t	s		r	l	n	nt	nd		nz
	c	j			ny			nc	nj
k		g			ng'	nk	ng		
	h								

The symbols b and v, when not preceded by a nasal, represent the same sound, a bilabial voiced fricative. The symbol b is used in Kikuyu and Mwimbi, v in Embu and Kamba. It is possible that Embu v and mv are sometimes pronounced as labiodentals rather than bilabials, but this is uncertain. When preceded by a nasal, b and g represent voiced stops; otherwise, they represent voiced fricatives. The sound symbolized by c is palatal, sometimes fricative (ç), sometimes affricate (č), depending upon the speaker, style, and other factors. The symbols th and nth represent voiced interdental fricatives. The symbols ng and ng' must be distinguished; the former is a velar nasal followed by a velar stop, the latter simply a velar nasal. The symbol ny represents a palatal nasal. The j, only in Mwimbi found without a preceding nasal, represents a palatal affricate or fricative.

3. High and low tone are represented respectively by acute and grave accents placed above the vowel or other symbol (á, à). High falling to low and low rising to high are represented by combinations of these signs : â, ã. In a few cases the basic tone of an item is reversed;

that is, the realized tone is high if the basic tone is low, low if the basic tone is high. This is indicated by a small x placed above the vowel or other symbol (ā^x). It should be noted that normally a high tone following a low tone is realized a step lower in pitch than any preceding high tone, and that any utterance-final low tone is also a step lower than any other low tone. If an element is preceded by an apostrophe ('), it is indicated that the tone of that element, if high, is realized a step lower in pitch than the tone of an immediately preceding high-toned unit.

In Kikuyu the realized tone is normally very different from the tones found with corresponding items in the other dialects. The tonal groupings correspond very closely in inventory to their equivalents in Kamba, Embu, and Mwimbi, and one may therefore assume that the basic structural tones are essentially the same. Accordingly, tonal marking in Kikuyu represents structural, not realized, tone, and the symbols have been chosen to harmonize with the tones found on parallel items elsewhere. However, it is not, and cannot be, assumed that the tonal patterns of Kikuyu duplicate precisely those found in other dialects, which differ among themselves in tone. Because of this, and because of the very complex rules governing the relationship between realized and structural tones, it is often impossible to be certain of the basic tonal pattern of a Kikuyu construction. In interpreting the data, one must be fully aware of this fact.

Section 3 : Principles of Analysis

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A. Recognition of Identity :

It is necessary to specify exactly what are the criteria on which the analysis is based. In a comparative work, it is also necessary to specify what constitutes, for purposes of the discussion, a point of similarity. There must be standards against which to measure the data. Such standards must be constant, or the comparison may not be valid. They must also allow for flexibility, or one minor point of difference may be allowed to outweigh a comparatively vast degree of similarity.

The following criteria have been established in order to allow determination of points of resemblance. Their justification is based on the results of their application. They allow one, without change of criteria, to analyze the data and arrive at conclusions which do not conflict with known fact. It is possible, and not improbable, that more satisfactory criteria could have been found. These, however, seem to be adequate, and have been followed herein:

1. Two items will be considered formally identical 13 if their constituents correspond exactly when regular phonologic rules, or, between dialects, regular phonetic correspondences, are taken into account, and when tonal matters are omitted from the discussion 14.

2. Two items may also be considered formally identical, although not satisfying the first criterion, if one or more of the constituents differs in behavior in conjunction with other constituents and in effect upon them, provided that the differences reoccur in other con-

structions having constituents formally identical with those being compared. It must also be provided that the constituents in question should be formally similar apart from the said differences in behavior. In such cases the constituents so differing may also be considered formally identical ¹⁵.

3. Two items will be considered functionally identical if one may occur in semantic contexts equivalent to all of those in which the other may occur, with equivalent function/meaning.

4. Items may also be considered functionally identical if the majority of the contexts in which one occurs are identical with the majority of those in which the other is found, and if in these contexts the two have equivalent function/meaning.

5. Two items may be considered functionally identical if each may be considered, by criteria 3 or 4, to be functionally identical with a third item, provided that the two items in question do not contrast directly with one another in function/meaning.

6. Two items will be considered structurally ¹⁶ identical if, by the above criteria, they can be said to be both formally and functionally identical.

7. Two items may be considered structurally identical if they satisfy the criteria for formal identity but fail to satisfy those for functional identity, provided that a semantic connection exists between their functions which does not appear significantly improbable and does appear significantly probable ¹⁷.

B. Principles of Monolingual Analysis:

Identity, as defined in A., applies not only in determining if two items in two dialects may be considered formally, functionally, or structurally "identical", but also in establishing the formal, functional, or structural identity of two items in the same dialect. Before one can compare the constructions of the four dialects, one must establish what constructions in fact exist in each dialect. In order to establish what constructions exist, one must, since the aim is to use the inventories established for comparative purposes, first establish uniform criteria for determining the number of constructions in a single dialect. The basic definitions of identity given above form the basis of these criteria. However, their application to comparative differs considerably from their application to data from a single dialect. For comparative purposes, the previous statements are adequate. In establishing the inventory of constructions in one dialect a more detailed statement of the implications of those definitions is necessary. The presentation of construction inventories of individual dialects is not an integral part of this study. However, for reasons to be specified later, it is necessary to include, as Appendices I-IV, statements of the said inventories. Accordingly, it seems desirable to present a list of criteria derived from the basic statements above, as they apply to data on one dialect:

1. Every realized form with an associated function/meaning must be assumed to represent a unit in the structure of the language. Without this basic assumption, no linguistic analysis could be attempted.

2. If different realized forms satisfy the criteria for formal, functional, and structural identity, they may be assumed to be variant representations of the same structural unit.

3. If realized forms differ in form, but not in function, it may still be assumed that structural identity exists and that the two are variant representations of the same structural unit, provided that the items differ in but one respect and are found to co-exist as stylistically or idiolectally differentiated equivalents. That is, they may be so identified if the native speaker can find no functional/semantic difference other than use in specific styles or by particular speakers.

4. If two realized forms are identical in form but differ in function, they may be considered to represent the same structural unit only if the two functions are related in a way which would satisfy the seventh of the criteria for structural identity in A. above.

5. If two realized items differ slightly in form or function, and these differences can be shown to coincide with differences in external context, it may be assumed that they represent contextually determined variants of the same structural unit. This may not be assumed if any other criterion would prevent such identification.

6. If two realized items contrast in any of their environments, they must be assumed to represent different structural units.

7. If, on a syntactic level, two realized units are identical except that in a given position relative to other constituent items each contains a constituent not found in the other, the two differentiating

constituents may be recognized as members of the same class of constituents. This interpretation is possible only when it can be shown that the constituents in question never co-occur, that their functions are to some extent parallel, and that a number of other pairs of realized units exist showing the same formal and functional differentiation.

8. If a realized unit contains a constituent which can be considered to be a member of a class of constituents of the type described in 7., it may be assumed that it represents a structural unit which includes as one of its constituents the class in question as a whole, rather than the specific member of the class found in the realized unit ¹⁸.

9. If there are found two realized units differing only in that they include, in equivalent positions and with parallel function/meaning, different members of the same class of constituents of the type described above, the units may be recognized as representing the same structural unit ¹⁹.

10. If two realized units are differentiated by a formal feature other than inclusion of different members of such a class constituent, as well as being so differentiated, they will not normally be considered to represent the same structural unit. They may, however, be considered to represent the same structural unit if they satisfy the following conditions:

a. They must differ in function only in a way which can be shown to correspond to the differences in associated function/meaning between

the members of the class constituents involved.

b. Neither of the two may be capable of identification as a representative of a structural unit other than that in question.

c. There must be no overlapping of the inventories of members of the class constituents involved with which each divergent form may occur. Such overlapping is permitted only if it can be interpreted as showing alternation of stylistic or idiolectal variants, as in 3. above.

11. When the conditions in section 10. above are satisfied, the two items may be taken to represent the same structural unit, formal differences being considered to be conditioned by the member of one of the class constituents chosen in each case. Recognition of such conditioned variants as members of the same structural unit was provided for by 5. above ²⁰.

12. If two realized units differ in that, while one includes a member of a class constituent, the other includes no such member, they may be recognized as representing the same structural unit, provided that their forms and functions differ only in a way which can be shown to correspond to the form and function/meaning of the member of the class constituent involved.

13. Despite 12., two such units may not be recognized as representing the same structural unit in certain cases. If there exist a number of structural units including a given class constituent which do not correspond in form and function to units lacking any representative of that class constituent, then even if a structural unit including

that class constituent corresponds in form and function to an item lacking a representative thereof, as in 12., the two cannot be considered to represent the same structural unit. Hence the imperative constructions of Thagicú, which lack subjective prefixes, cannot be identified with parallel constructions including subjective prefixes, since the vast majority of constructions including subjective prefixes do not have equivalents without them. The comparatively few negative constructions with formally and functionally parallel affirmatives cannot be identified with those equivalents, as other negative constructions have no such counterparts. Constructions including objective prefixes, however, may be recognized as representing the same structural units as those lacking them, as every construction having an objective prefix has a parallel without it.

14. Two constituents of realized units may be considered members of the same set or class constituent, as in 7., if all the conditions there are satisfied except that specifying occurrence in the same position relative to other constituents, provided that their distribution is such as to satisfy 5. and allow recognition as contextually determined variants of the same unit in all respects except form and position ²¹.

C. Definitions:

For purposes of this study, it will be necessary to define precisely the meanings of such terms as "construction", "morpheme", and so forth. If only one linguistic system were to be discussed this would be unnecessary, as most of the terminology would consist of conventional labels used in their usual senses. In this comparative discussion a wider range of terms must be used, in order to differentiate terms used in description and those used in comparison. Since certain of the terms must be unfamiliar, their definition and application without use of alternatives are necessary.

It is unnecessary here to define terms referring to phonology. While it might be necessary in descriptions of individual dialects to discuss phonologic matters, in comparison discussion of such matters will be unnecessary. Terms used in the context of a single linguistic system will therefore be adequate.

In morphology, however, extra terms for use in comparative contexts are needed. The following distinctions are made:

1. A "morpheme" is, for purposes of this discussion, understood to refer to a unit in the structure of a single linguistic system. It is realized as a combination (or set of combinations) of phonologic units, and has an associated function/meaning (or set of associated functions).
2. An "allomorph" is a non-structural unit, serving as the realization (or one of the realizations) of a morpheme. As such, of course, the term is used in the description of individual linguistic systems.

An allomorph consists of a fixed combination of phonologic units and has an associated function/meaning.

3. A "morphologic unity" may be said to be the equivalent in comparative discussions of the morpheme. The term must be distinguished from "morphologic unit", which may be used as an alternative to "morpheme". While the term "morphologic unit" will not be used in this work, because of possible confusion, that possibility of confusion remains, and care in definition is necessary. A "morphologic unity" is a group of morphemes which occur in different dialects, but which can by the criteria established be considered structurally identical. It has seemed advisable in certain cases to recognize the existence of a "morphologic unity" which includes a single morpheme for which no structurally identical equivalents in other dialects have been found. While it might seem at best useless to establish a "group" with but one member, in fact there are arguments to justify such treatment. There is the fact that a structurally identical morpheme might occur in a Thagicũ dialect not discussed here, or in some other language. Possibility of error also exists, and a structurally identical morpheme might exist in another dialect and not have been discovered; also, interpretation of the data might be faulty. Most important, however, is the fact that the primary goal is to account for the similarities and differences between the four dialects. The statement of similarities is unaffected by the inclusion of such one-member morphologic unities. The statement of differences, however, would be greatly affected were such items to be omitted from the description. For all these reasons

the inclusion of morphologic unities with only one morpheme may be permitted.

4. An "element" is in some ways equivalent to an allomorph. Unlike the morphologic unity, however, the use of this term is not necessarily restricted to comparative contexts. An "element" is a non-structural unit consisting of a fixed combination of phonologic units. Two dialects may be said to share the same element when in one an element occurs which may be considered formally identical, by the criteria established, with one in another. Associated function/meaning is irrelevant in discussion of elements; the element is a unit of form alone.

Since the primary focus of this study is upon comparing the verbal constructions found in the four dialects, rather than merely the morphemes occurring, a similar range of terms applicable to the endosyntactic level must be provided. The endosyntax of a language may be defined as the set of significant combinations of significant structural units occurring within the boundaries of a structural word (as defined for the language in question). It may be contrasted with the exosyntax, which is concerned with significant combinations of structural words. The distinction is to a large extent comparable to that traditionally made between "morphology" and "syntax". I prefer, however, to restrict "morphology" to the set of significant combinations of non-significant units, that is, the inventory of

morphemes. On the endosyntactic level the following distinctions are made:

1. A "construction", like a morpheme, is a structural unit in a single linguistic system. It consists of a fixed combination (or set of combinations) of morphemes (or classes of morphemes, as in 8. of B. above), and often includes a specific set of superimposed intonational features. It should be noted that the term "intonational", as used here, includes not only tonal phenomena, but also features of length, stress, or specific modifications of consonantal or vocalic units, when these cannot be attributed to specific constituents of the construction, but must be assumed to be features of the construction as a whole. Like the morpheme, the construction has a specific function/meaning (or set of functions).

2. A "construct" is in some respects similar to an allomorph. The term was chosen because of its formal connection with the term "construction". Though it is better known in the sense in which it is used in discussions of, for example, the Semitic languages, where it refers to a special form of a word used in contexts where it is closely linked to a following word, it was not felt that confusion would result from so different a use of the term in discussing a Bantu language. As used here, a "construct" is a non-structural unit in the endosyntactic portion of a single linguistic system, serving as a realization, or partial realization, of a construction. Like the construction, a construct is composed of morphemes or classes

of morphemes in a fixed arrangement, sometimes with superimposed intonational features, and has an associated function/meaning or set of functions. If a construction includes as a constituent a class of morphemes, rather than individual morphemes, in a construct of that construction one or more of the class constituents of the construction must be represented by a specific morpheme. If a given construction contains no class constituents, it presumably has but one construct.

3. An "endosyntactic unity" is the endosyntactic equivalent of the "morphologic unity". That is, it is a term used in comparative discussion to indicate a group of constructions in different dialects all of which can be shown to be structurally identical. An endosyntactic unity may consist of a single construction in a single dialect, for the reasons given in the discussion of the morphologic unity.

4. A "pattern" is equivalent to an element : it is a unit of form alone. It consists of a fixed arrangement of morphemes or classes of morphemes, considered apart from any function/meaning. In some ways, it would perhaps be better to describe it as a fixed combination of elements or sets of elements. The term may be used in the description of a single dialect or in comparison. Two dialects may be found to contain patterns formally identical, but this fact has, of course, no structural significance.

It should be pointed out specifically at this point that the existence of morphologic or endosyntactic unities has no necessary

connection with the existence of historical relationships between the items constituting those unities. It is necessary to give this warning because, besides the fact that at a later point an investigation of possibilities of drawing historical conclusions from the data presented will be made, comparative statements are very frequently associated, if not confused with, historical statements. Such a unity is merely, as defined, a group of structurally identical, but not necessarily otherwise connected, units from different dialects.

Section 4 : Description of Contents

A. General Description:

As stated earlier, this is an analytic internally comparative study of the portions stated of the verbal systems of four Thagicu dialects. The greatest portion is concerned with describing the inventories of endosyntactic and morphologic unities found in the data examined. Statements made in these sections will establish the forms and functions of the constructions or morphemes in each unity, both resemblances and dissimilarities being indicated. The number of dialects sharing each such unity will further supply data on differences and similarities among the overall systems, complementing the material on individual constructions or morphemes.

While this in itself could constitute a reasonably adequate description and comparison of the systems, satisfying all the requirements made earlier, it will not constitute the whole of the study. In addition, the possibilities of similarities between constructions or morphemes not recognized as structurally identical will be discussed separately. A final section will be devoted to investigation of possible conclusions to be drawn from the data thus presented. While these could be eliminated, it is felt that they serve a purpose, through indicating possibilities for speculation beyond the data and presenting arguments against those less valid, and through supplementing the information on similarities and differences with data which could not readily be presented in the discussion of structural unities.

A number of appendices are attached, partly to round out the study and partly to facilitate reference. The most important are four containing the inventories of morphemes (or rather elements) and constructions found in Kikuyu, Kamba, Embu, and Mwimbi. While it is true that the reader could himself compile these inventories from the forms given in the body of the work, there are reasons for their inclusion. In order to state fully the form and function of each construction considerable space is required. Very few show a single formal variant and a function/meaning capable of statement within a single sentence. The majority have at least two variants (though often differing only in tone) and functions requiring a significant amount of explanation. To include minor details would only serve to increase the amount of space required and obscure presentation of evidence for and against the unity under discussion. To omit them, however, would be to ignore part of the data, or perhaps, through the need to state details in certain cases, result in uneven treatment. For these reasons, the data have been presented in detail, but in the form of appendices, allowing cross-reference between appendix and text and supplying necessary information without obscuring argument. Other appendices present similarly important matters irrelevant to the main argument, to reduce repetition and eliminate obscurities.

B. Description of the Systems:

Though the systems themselves are discussed in the inventory of

endosyntactic unities, and details of form and function are described fully in appendices, there are certain general characteristics best discussed at this point.

All four dialects contain the two systems discussed here, that found with "regular" stems and that found with habitual/continuative stems. The inventories of constructions found with the two classes of stem differ considerably. No special remark need be made on the former class. In the case of the habitual/continuative stems, though, it must be noted that they differ functionally from regular stems in reference to prolonged action. If the function of a construction used with such stems includes reference to a specific point of time, the construction will be used of actions in progress at that time. If reference is to a sufficient length of time, the construction may also be used of actions performed habitually. In some cases both references are possible. In no case do the two meanings, habitual and continuative, contrast. They are variants of the same basic reference to prolonged action, differences being conditioned by the temporal reference.

In the construction inventories (Appendices I-IV) and elsewhere will frequently occur the terms "time of reference", "day of reference", "point of reference", and so forth. Some explanation is necessary. In all four dialects the following is true: if a construction's function/meaning includes reference to the time of the action, that temporal reference will not necessarily indicate time relative to the moment of speaking. In some languages, as normally in English,

such time reference is relative to the moment of speaking, except in direct quotations and under unusual circumstances. In Thagicũ, however, a construction with future temporal reference, for example, may readily be used even in remote past contexts, if it refers to actions being planned or otherwise in the future relative to that time. Compare the Mwimbi aaugire akaamĩrĩa 'he said (thought, decided) he would eat it' and akaamĩrĩa 'he will eat it' with their English equivalents. In the former example, the verb aaugire refers to the remote past, relative to the present or time of speaking. The verb akaamĩrĩa has future time reference, but its temporal reference is relative to the time of the action of the preceding verb. Parallels occur in all four dialects, and it is therefore necessary to state that the point of time to which temporal reference of Thagicũ verbs is related is not limited to the time of speaking, but contextually determined. It is also necessary, in describing temporal reference of constructions, to use terms such as those given above. The terms "time of reference" and "point of reference" are used interchangeably to indicate the point of time serving as the "present" relative to which the time of action is specified. The term "day of reference" similarly indicates the day on which the point of reference falls.

The four dialects, while similar in the range of their tense-systems ²², are not identical. By no means all constructions express tense, or temporal reference. The tense system is relevant only in specific subsections of the verbal systems examined, but in these it is of some importance. Kikuyu and Embu show identical ranges in

the past, but differ in the future. The former distinguishes future action further than the day after that of reference, action at a later point on the day of reference, and action in the immediate future. The latter distinguishes only future action after the day of reference and action on the day of reference. Both distinguish present action, action in the past on the day of reference, on the day before that of reference, and action further in the past than the preceding day. Kamba and Mwimbi might be said to share the same past system, but in both there are differences. The boundary between reference to the day before that of reference and that to still further action is less clear than in Kikuyu and Embu, and the two may overlap to a considerable extent. In addition, in each case one of the two is restricted to certain contexts. Besides these, Kamba distinguishes action in the past on the day of reference, present action, future action on the day of reference, and future action later than the day of reference. Mwimbi distinguishes only past action on the day of reference, present or immediate future action, and future action generally.

It should be noted that in no dialect do these distinctions show one-to-one correspondence with the formal units expressing them. In certain divisions of the systems fewer distinctions are made, and in some entirely different semantic elements enter into the function/meaning of the constructions. Probably the most divergence from these systems may be found in the negative systems of each dialect. Here the only dialect showing, in the past, the same temporal divisions in both negative and affirmative is Kamba. In present and future, no

dialect shows agreement between affirmative and negative.

The negative systems are noteworthy for other reasons as well. In the inventory of constructions found with regular verb stems, there is in the indicative little formal similarity between functionally equivalent affirmative and negative constructions. In the habitual/continuative systems, however, and in conditionals with regular stems, the only formal difference usually found between an affirmative and its corresponding negative is the presence of a negative prefix. It is interesting that the areas showing the most formal differentiation between affirmative and negative are also those where the most semantic difference exists between the two systems. In Kikuyu, Kamba, and Embu (the three Southern dialects represented) the negatives show a further peculiarity. In subordinate constructions all three use a negative prefix -ta-, which immediately follows the subjective prefix. In independent constructions, when the subjective prefix is that of Classes B, 1, 3, 4, or 9 (see Appendix V), the negative prefix has the form nd- (which can be shown to represent an original and structural *nt-) and precedes the subjective prefix. In the same constructions, when the subjective prefix is one of any other class, the negative prefix has the form -ti-, and follows the subjective prefix. In Mwimbi the negative prefix has in all cases the form -tĩ-.

The verbal systems of the four dialects show a three-way division into independent, consecutive, and subordinate constructions. This division is found with both regular and habitual/continuative systems. Independent constructions are, as the name implies, those which may

occur as the only construction with verbal function in an utterance. Consecutive constructions are used in series of verbs referring to consecutive or simultaneous actions, in second or later position in the series. Subordinate constructions, besides showing, in the negative and certain other cases, important formal distinctions, may not be used either as the sole construction of an utterance nor in a series of consecutive actions. Consecutive constructions, though semantically subordinate, are differentiated formally, having more in common with independent constructions. The point of reference of both consecutive and subordinate constructions is necessarily the time of action of the verb on which they may be said to depend, rather than the time of speaking. All three groups include affirmative and negative constructions, though negative consecutives are very rare.

In all four dialects independent constructions may be divided into Non-jussive and Jussive. The two are distinguished formally and functionally, the latter lacking tense and aspectual reference and being distinguished by functions expressing command, obligation, purpose, desire, and the like. In all dialects except Kamba, the non-jussive may be further divided into Indicative and Conditional²³. Indicative constructions are used simply to express statements of fact, or presumed fact. The "conditional", despite the implications of the traditional term, are not used exclusively in conditional sentences, nor do conditional sentences necessarily include such constructions. They have as their basic function expression of a hypothetical, usually doubtful, possibility, and, while they can be

found in conditional environments used as their name implies, the element of improbable possibility remains, and their use outside such environments is at least as frequent as their use within them. Both indicative and conditional include affirmative and negative constructions, as do the jussive.

Consecutive constructions are divided only into affirmative and negative. Compared with the other two major divisions, this is very small in inventory in all four dialects.

Subordinate constructions are very frequently formally and functionally similar to members of the other two divisions. There are four major subdivisions: Jussive, Relative, Copular, and Absolute.

Subordinate jussive constructions, though somewhat similar to independent jussives in form and function, are never used as the only unit with verbal function in an utterance. No such constructions exist in Kikuyu, and negative subordinate jussives are found only in Kamba.

Relative constructions, as the name implies, are used in relative clauses. Though satisfying the criteria for recognition of verbal function given earlier, they also have adjectival function, in that they are used as the verbal component of relative clauses of adjectival and adverbial function. Aside from tonal differences, relatives are differentiated from independent equivalents by use in certain cases of a distinctive series of subjective prefixes (see Appendix V). In Kikuyu, Embu, and Mwimbi this series is used only when the subject of the verb is identical with the item modified by the relative clause,

the regular series of subjective prefixes being found otherwise. In Kamba the relative series is used in every case. Every relative construction corresponds very closely in form and function to one of the independent non-jussive constructions. Differences are in tone, series of subjective prefix, and (in Southern Thagicũ only) negative prefix. Like independent non-jussives, these are divided into Indicative and Conditional (except in Kamba), each including affirmative and negative. Not every independent non-jussive has a relative equivalent, but every relative has an equivalent independent non-jussive construction.

Copular constructions are perhaps the most important of the subordinate constructions. Their name is derived from the contexts in which they are used. In all four dialects there occurs a proclitic ní, which includes among its functions that of an affirmative copula, as in the Kikuyu múndũ úyũ ní múnene 'this man is big'. Especially in the Southern dialects, but also in Mwimbi, it is very common to find that an utterance includes this or one of a set of similar particles preceding the verb. In Southern dialects, the majority of normal, unemphatic sentences must include the particle in question. When it is absent, some item other than the verb is emphasized. If it is present, but precedes an item other than the verb, that item is normally emphasized. In Mwimbi, proclitics such as ní and a form ká (which is very common but seems not to have any close equivalent in the other dialects) are not used as frequently as in the others.

When they occur, the item preceded, whether noun or verb, is emphasized; unlike Southern Thagicũ, Mwimbi omits nĩ in normal, unemphatic contexts. In a very few cases, most of which are jussives or share some semantic features with jussives (as in the Kamba construction EA.Olf - see Appendix II), the verbal constructions used with these proclitics are identical in form with independent constructions, and in such cases, even in Southern Thagicũ, there is necessarily an implication of emphasis upon the verb if the proclitic immediately precedes. In most cases, however, the verbal constructions found in sentences including one of the proclitics, even if it does not immediately precede the verb, show distinct differences, though still similar to the independent constructions. In Kikuyu and Mwimbi, the only difference in affirmative verbs is in tonal pattern. In Kamba, besides the tonal pattern, the same series of subjective prefixes found with relative constructions is used. In Embu, the same tonal differences exist, and as in Kamba the relative series of subjective prefixes is used. Here, however, if the proclitic does not immediately precede the verb the non-relative series is used. In all four dialects it is rare for a negative construction to be used in such environments, the normal method of negating a sentence of this type being to use the negative copula tĩ (Kikuyu and Kamba) or tĩ (Embu and Mwimbi) in place of nĩ before an affirmative construction. However, if a negative construction occurs, in Southern Thagicũ the negative prefix used is the -ta- common to all subordinate negatives. In form and function the constructions used in such environments differ from both relatives

and absolutes. They are, in view of the Southern dialects' negative prefix and their dependence upon ni and its equivalents, clearly subordinate. Their use with the "copula" ni makes it reasonable to call such constructions "copular". The term is unfortunate, as it could be taken to mean that they have, or are used only with stems having, the function/meaning of an equivalent to the copula. However, no better term seems available. Like the relatives, each copular construction has an equivalent among the independent non-jussives, and an equivalent relative. Not every independent non-jussive, nor every relative, has an equivalent copular. Copular constructions are divided (except in Kamba) into Indicative and Conditional, each of which is further divided into affirmative and negative, though the latter is rare.

Absolute constructions, except in Kamba, are also divided into Indicative and Conditional, each including affirmative and negative constructions. Every conditional absolute has a formal and functional counterpart among the independent non-jussive, relative, and, with one exception, copular, and every independent non-jussive, relative, or copular conditional has an equivalent absolute, differing only in tone, and, in Kikuyu and Embu, negative prefix. Conditional absolutes are used in protases of conditional sentences, to express an improbable possibility. Indicative absolutes are only in a few cases found to correspond in form and function to independent constructions. In the case of the absolutes the term "conditional" is particularly unfortunate, as many indicative absolutes are far more often used

in conditional clauses than are conditionals.

The term "absolute", like the term "copular", had to be coined for the purposes of this comparison, when in the course of investigation it became clear that the two important categories existed. Though less misleading than "copular" might be, "absolute" also must be carefully defined. Absolute constructions may not occur as the main verb of a sentence. They may be found in the protases of conditional sentences, in temporal clauses, or in what appear to be adverbial clauses indicating manner or accompanying circumstances. In some cases clauses containing absolutes and relative clauses show little difference in meaning. Formal differences, however, exist - tonal, and the fact that the relative series of subjective prefixes is never used with absolutes. Such constructions have, in some descriptions of Bantu languages, been called "participial" or "dependent". The former term is most inappropriate, at least in Thagicú. Apart from the presence in all four dialects of true verbal adjectives which could be called participles, the function of most absolutes is far from participial. The name is derived from the fact that sentences like the Kikuyu nĩndoonire mũndũ akĩina 'I saw a man singing' can be translated into English by using a participle for the verb akĩina. Such derivation of terminology from translation is undesirable in any case, and here is more so, as absolutes are if anything adverbial. A more appropriate translation of the example would be "I saw a man while he was singing". Absolutes are used, unlike relatives, without introductory particles. Except for absolute conditionals, they have no temporal reference, only

aspectual. They are in a sense apart from the body of the sentence, far more even than relatives, and are called "absolutes" because of their functional/semantic resemblance to constructions such as the "ablative absolutes" of Latin and parallel constructions elsewhere.

What might be considered a fourth major classification, the "marginal constructions", includes two classes of construction. Series of constructions obviously mere modifications of ordinary constructions, differentiated by an additional formal element and a predictable semantic element, are classed here. Discussion of such constructions in full would require much duplication of previous statements, without significantly adding to the study. Treatment as marginal allows complete presentation of the data without unnecessary expansion of the discussion. Also included as marginal constructions are certain items which cannot satisfactorily be classed as belonging to any of the categories already established, on formal and/or functional/semantic grounds.

Further subdivisions are possible within certain of those described above. Within the independent non-jussive, relative, copular, and conditional absolute categories, in particular, divisions can be made on formal or functional grounds. However, in no dialect do the formally and functionally based subdivisions coincide. Which should be taken as primary cannot be determined on purely objective grounds. If either is selected to the exclusion of the other, or even if the two are combined and constructions grouped on the basis of both form and function, the result has characteristics which seem

to indicate that the grouping is artificially based and unrelated to the structure of the system. In this situation it seems best not to recognize further subdivisions. In the inventory of endosyntactic unities and in the construction inventories divisions have been made. However, no structural validity is claimed for such subdivisions, which have been made solely to facilitate handling the data.

Notes to Chapter I:

1. The name "Thagicũ", as used and defined in my article "Dahl's Law and Thagicũ", African Language Studies VIII, 1967, refers to a cluster of dialects or very closely related languages spoken mainly in the south central portion of Kenya. It can be divided into two main sections, Northern and Southern Thagicũ. The former includes Chuka, Igoji, Mwimbi, Imenti, Tigania, Tharaka, and some other dialects and sub-dialects. The latter is composed of Segeju, Kikuyu (Northern and Southern), Kamba, Embu, Mberu, and some others. The group has in the past been named the "Kikuyu Group", the name being a natural result of the fact that at present the Kikuyu are probably the most important of the tribes speaking dialects of the group, both numerically and politically. This is, however, less satisfactory, as it would, among other disadvantages, force one to speak of the Northern Kikuyu sub-dialects as members of the Southern division of the Kikuyu group - with resulting confusion. Except for the Segeju, whose Thagicũ dialect is by now probably extinct, the tribes speaking the dialects live in fairly close proximity to one another, most located near Mount Kenya. All members of the group are to a large extent mutually intelligible, with the probable exception of Segeju, owing to geographical separation and contact with other languages. Thagicũ is a Bantu language, and most dialects are comparatively isolated from contact with other forms of Bantu.
2. The term "construction", as used in this study, is defined on page 42.
3. The expressions "functional/semantic", "function/meaning", and possibly other modifications thereof, will occur frequently throughout this study. As used here, no significant distinction is felt to exist between "function", "meaning", and "function/meaning". Strictly, "function" is the role the item under consideration plays in the structure of the language as a whole, or in a specific

context. Similarly, "meaning" is the concept associated with the item in question in the mind of the speaker of the language, either in a single context, or in the sum of the item's possible contexts. The two are closely interrelated and in fact interdependent, so that it is difficult to separate them. It is also often impossible for the non-native investigator to describe them or even to know the meaning, when the function is clear, or in other cases the function when the meaning is clear. To avoid the difficulties involved, the terms will be used interchangeably. "Function" and "function/meaning" will be used more commonly than "meaning"; "function/meaning" and its variants will be used whenever they are not awkward, to make clear that no distinction is made. Whichever term is used, what is meant will in all cases be either the combination of "function" and "meaning", or else whichever of the two is more easily known and described in the case at hand.

4. While it might be thought that the terms "form" and "formally" would need little explanation, in fact the latter term is ambiguous and the former has also been found to be so to some extent by those who have commented upon earlier versions of this section. "Form", as used herein, refers to the shape or morphologic or phonologic composition of an item, as opposed to its function/meaning, already discussed. The terms "formal" and "formally" will be used in the sense of "with reference to form" as defined, rather than in any other possible sense.
5. The terms "allomorph" and "morpheme", as used in this study, are defined on page 39 .
6. Thagicũ, like other Bantu languages, includes what is known as a "class system". Each noun belongs to one of a number of sets (the number varying from dialect to dialect) distinguished usually by the presence of a prefix specifically associated with that set or "class". Other types of word also include prefixes associated with these classes, in this case being variable, while the only variation in the noun is between singular and plural. The prefix found with an item other than a noun is syntactically determined: an adjective will take the prefix of the class to which the modified noun belongs, a pronoun has the prefix of the class to which the noun to which it refers belongs, a verb normally includes a prefix belonging to the class of its subject, as well as, often, one indicating the class of its object. This system of agreement in prefix is known as "concord", and the elements indicating the class of nouns and their modifiers will be termed "concordant morphemes" herein. A number of formally differing and contextually determined variants or allomorphs of the concordant morphemes are found to occur in all four dialects; a "series of allomorphs of the concordant morphemes" is a set of such allomorphs occurring in a specific

environment or set of environments, as with nominal stems, pronominal stems, as subjective prefixes to a verb, and so forth. The various classes found to occur will be referred to by the system of numeration common in studies of Bantu languages, with the addition of Classes A, AA, B, BB, and R, used here for convenience in referring to first person singular, first person plural, second person singular, second person plural, and reflexive pronominal prefixes, respectively. A full account of the class system and system of concordant morphemes will be given in Appendix V.

7. The concordant morpheme of Class 1 has the form a- only when it occurs as subjective pronominal prefix of a very large number of constructions one would desire, on functional/semantic grounds, to recognize as having verbal function. It is desirable to include it as one of the formal criteria for establishing which constructions are said to have verbal function for purposes of this study.
8. This provision is necessary if certain relative and copular constructions (these terms are defined on pages 52-5) are to be included. As they parallel the constructions included in the first set in form and function, their inclusion is desirable, despite tonal differences and the fact that in many cases the series of allomorphs of the concordant morphemes found as subjective prefixes is one in which the representative of Class 1 has the form ū-, not a-. Since there could exist constructions which would satisfy this criterion in the nominal system, one must except constructions involving a series of allomorphs of the concordant morphemes where the representative of Class 2 is a-. Allomorphs of the Class 2 concordant morpheme of this form occur only with nominals and pronominals, never with items one would wish to call verbs. It should be noted that the similarity in form of this to the Class 1 prefix used as a criterion above is purely accidental.
9. This third criterion is necessary if the imperative, which includes no subjective prefix, is to be included. The series of allomorphs of the concordant morphemes mentioned is that of the objective prefixes, which may occur in the imperative. One must except constructions of the sort excluded in the previous criterion and constructions capable of serving as subject of a sentence if one desires to exclude not only nominals and pronominals in general but also infinitives, participles, and other verbal nominals, which may also include objective prefixes.
10. A "stabilizer" may be defined as an element in whose presence other items may constitute a complete sentence, although they do not constitute a complete sentence in its absence. For a discussion of the function of the particle ní in Kamba, see "Some Problems of Stability and Emphasis in Kamba One-word Tenses",

by J.M.G. Ndumbu and W.H. Whiteley, Journal of African Languages, Vol.I/2, 1962. The function/meaning of the equivalent element in the other dialects is similar.

11. Stem-formants, or extensions, as they are usually called in discussions of this characteristic feature of Bantu languages, may in Thagicũ be distinguished from inflectional elements by a simple formal criterion. Any item which occurs prefixed to a verb stem like -rúg- 'cook' is inflectional; any item suffixed to such a stem is inflectional if the combination cannot occur with the construction known as the "infinitive", a verbal noun composed of the prefix kũ-, any other prefixed elements (normally only objective prefixes may occur here, though others can be found), a verb stem, and final suffix -a; any suffixed item which can occur in that context, however, is part of the stem, and hence a stem-formant.
12. The definition of the term "element" as used herein will be found on page 41.
13. It should be noted here that the terms "identity" and "identical", as used here, are not used literally. In the strictest sense, no two items can be "identical", since the fact of being two items rather than one establishes some degree of difference. The term "identical", as used here, indicates only the existence of a degree of similarity sufficient to satisfy the stated criteria. It should be stated that items considered to be formally, functionally, or structurally identical need not in fact be identical. The possibility of error exists. This is increased by the element of subjectivity which exists, not only in criterion 7., but also in the frequent need to make essentially arbitrary decisions as to which of two alternatives to select. There is also the considerable probability of error due to deficiencies in the data. All that is implied in this study by a statement of "identity" is that to the best of my knowledge and belief there is no evidence that the items do not satisfy the criteria and that there exists good and sufficient reason to believe they do satisfy the criteria.
14. The reason for the omission of tonal factors in determination of "identity" is a simple one: it is, in the group in question, impossible to base "identity" upon tonal criteria without reducing the number of interdialectal correspondences recognized almost to zero. Apart from the vast tonal differences between Kikuyu and the other dialects, there are complexities within the other dialects, as well as between dialects. The Embu construction FA.07c, for example, has as many as six distinct tonal patterns: S+ngĩ+V+i:té, S+ngĩ+V+i:tè, S+ngĩ+V+i:'té, S+ngĩ+V+i:té, S+ngĩ+V+i:té, S+ngĩ+V+i:té.

and S+ngí+V+í:tè. These are contextually determined, but not phonologically predictable. If one were to use tone as a basis for formal identity, one might be forced to treat these as separate units, in spite of otherwise identical form and function. Even if one were able to treat them as identical within Embu, one would have difficulty in determining external affiliations. The Kikuyu equivalent (in non-tonal form and function), DA.07c, seems to have only the variants S+ngí+V+í:tè and S+ngí+V+í:té. Besides the lack of correspondents for four of the Embu forms, the Kikuyu patterns do not correspond in distribution to their tonal equivalents in Embu. One of the Kikuyu "variants" and three of the Embu are in fact copular equivalents, the first Kikuyu and the first three Embu patterns being independent. The form corresponding in tone to the Kikuyu independent is copular in Embu. The tonal equivalent in Embu of the Kikuyu copular is independent. If regular tonal correspondence were taken as a criterion, recognition of identity between the Kikuyu and Embu forms would be impossible, despite their complete formal and functional identity in other ways. Whichever variant was considered primary, the two would not correspond. Even if one ignored such cases, one would still find instances where the four dialects include constructions functionally and formally identical except in tone, the tonal patterns differing markedly. In ABAA.lc one finds four otherwise identical constructions: Kikuyu DA.11c (S+á+V+á), Kamba EA.07a (S+á+V+'á), Embu FA.11b (S+á+'V+'á), and Mwimbi GA.09b (S+á+V+'á). The tonal patterns are similar, but hardly identical, and it cannot be shown that they show regular correspondences. If tone were to be taken into account, again one would be forced to separate them. To do so could be justified; from some points of view it would be theoretically desirable. It would also, however, reduce the number of interdialectal correspondences to a handful, which is absurd in view of the known degree of mutual intelligibility. Therefore, except where there exists a direct functional contrast between two consistently tonally differing items in a single dialect, tonal phenomena will not be taken to affect in any way statements of formal identity as defined.

15. An excellent example of a situation in which one would wish to apply this criterion is the set of constructions containing elements with basic form -kũ-. All four dialects have a number of constructions including an element of this shape, whose functions are such that it is reasonable to consider them examples of interdialectal correspondence. However, in each dialect the behavior of the element in conjunction with other items is different. In Kikuyu and Kamba, when the vowel a precedes this element in any construction one finds e instead of a. When the subjective prefix of Class 1 (a-), the prefix -kũ-, the verb stem -rĩm- 'cultivate', and final suffix of the form -a

are combined in Kikuyu, the result is ekūrīma 'he is about to cultivate', not the expected *akūrīma. In Kamba, in the same form, besides the same vowel change and the regular loss of r in the verb stem, the consonant k is in this prefix not normally realized in intervocalic position, so that one finds eūrīma. In Embu, though no other differences exist between this and other elements in behavior, any preceding vowel is lengthened, and one finds aakūrīma. In Mwimbi, one finds only the expected akūrīma. In the various dialects the same effects on neighbouring constituents occur in all other constructions in which the element occurs. One therefore feels justified in recognizing identity even in such cases.

16. The term "structure", as used here, involves both form and function. A structural unit is a formal element, or group of such elements, with an associated function/meaning or group of functions. It is the formal side which must be considered more important. If two formally identical items have different, though connected, functions, they may be considered structurally identical. Two items with the same function, however, if drastically different in form, may not be considered structurally identical. The structure in question is that of the language as a linguistic system or code, to which the realized form also belongs. The function/meaning, while associated with the system and in part a product thereof, is primarily connected with the mind of the individual speaker and its workings. Just as in analyzing the Morse Code it is of comparatively little importance whether the messages expressed are in English or German and what the messages are, so it is of little significance what the messages expressed by the structure may be in a linguistic description of the structure. While a description lacking reference to the functional/semantic associations of structural items would be invalid, formal criteria are of greater importance in determining the structure.
17. In the seventh criterion there is introduced an element of subjectivity. While in scientific analysis subjectivity must always be undesirable, it is often impossible to eliminate it without more undesirable consequences. Especially in the discussion of something so dependent upon the fallible human mind as a language, some use of subjective judgement must be made. It is admitted that, in this case, it is unlikely that in any particular instance two analysts would agree completely on what constitutes "significant probability" or "significant improbability". However, the mere statistical bases which would otherwise be used do not seem in every case to produce satisfactory results, and in many instances would probably be affected significantly by any deficiencies in the data. It seems unreasonable to rule against structural identity simply because in a given case the data that might allow recognition of functional identity happened not to be collected. While it is not claimed that this has in fact occurred, the risk exists,

and it further seems undesirable to establish too specific a point at which two items become ineligible for recognition of structural identity. The boundary must be an area, not a line, and this necessarily involves subjectivity.

18. When structural units are found to contain as constituents classes of this sort, they will normally, in the discussions to follow, be said to include a "class constituent". The various sets of subjective prefixes, objective prefixes, verb stems, and negative prefixes may be shown to constitute "class constituents" of this type. Other sets of items found in the four dialects might be interpreted as being such also, but most such cases are highly unlikely. In addition, to recognize such sets as class constituents would make adequate statement of the possible combinations of constituents to form constructions at once more complicated and less explicit. As a result, such less certain cases are not here considered "class constituents".
19. This provision, and the two preceding, are needed if one is not to recognize almost every distinct combination of inflectional elements as a separate construction. To omit them would compel one to assume that almost every word represented an independent structural unit, which in turn would make description, other than mere listing of all such words, impossible. The Kikuyu words ndúkũmĩoneete 'you had not seen it' and matigũciinũkĩitĩe 'they had not brought them home' differ in negative prefix, subjective prefix, objective prefix, and verb stem. Though no one would claim that these are in any sense the "same" word, one cannot deny that, when formal and functional differences are overlooked, there remains an important amount of formal and functional similarity. The points of resemblance are found to be shared not only by these but by a very large set of similarly differing items, and the differences are found to parallel those between other sets of somewhat similar items. In attempting to describe these it is not only possible, but highly desirable, to assume that there exists in the structure of the dialect a unit consisting of a pattern in which all the components of form and function common to these items are included, together with other components each of which consists of a set of mutually exclusive items, from each of which sets one (and only one) member must be present in any realized form representing the structural unit.
20. This and the preceding provision are needed if one is not to consider that each dialect includes two distinct constructions with imperative function. In Kikuyu (where a situation typical of the group exists) the imperative has a final suffix -a if no objective prefix occurs, or if the objective prefix of Class A occurs. If any objective prefix other than that of Class A occurs, a final suffix -e is used instead. If 10. and 11. were not included,

one would be able to recognize the forms with final suffix -e as representing the same structural unit, but those with -a would represent another. Despite the functional semantic similarities, the complementary distribution of formal differences, and the parallelism of the other constructions where objective prefixes occur, it would be impossible to consider the "two" imperatives to represent the same structural unit. Since there seems no adequate reason to distinguish the two variants, these provisions have been inserted. They do not, however, apply only in the imperative. The constructions in Kikuyu and Kamba which include the prefixal element -kū-, for example, already discussed in footnote 15, in certain forms show a change of preceding structural a to e, the shift being clearly associated with and conditioned by the -kū-. Though the case is somewhat different from that of the imperatives, the provisions still apply, and their omission would again complicate the description by forcing one to recognize two structural units where one has every reason to recognize one only.

21. This last provision is necessary if the two independent negative prefixes of the Southern dialects, nd- (preceding subjective prefix) and -ti- (following subjective prefix) are to be taken as members of a single class constituent. The distribution of the two is such that they are not only mutually exclusive, but their environments are completely complementary, conditioned by choice of subjective prefix. Rather than recognize two structural units for each negative construction, each occurring with a specific subset of subjective prefixes and no other, the two sets not overlapping, it seems best to insert this provision.
22. The word "tense" is used here and throughout this study to apply to one of the divisions of the scale of time of action relative to the point of reference, on the functional/semantic plane only, not the formal. It is not unusual in discussions of Bantu languages to use the term to refer to any verbal construction. This is an extension of the equally inaccurate use of the word to apply not only to the position of the temporal scale indicated but also to the verbal form expressing it. Both these usages, which seem in addition to imply a structural difference between nominal and verbal constructions which I do not believe to exist, will be avoided here.
23. In Mwimbi the system of constructions used with habitual/continuative stems also lacks conditional constructions.

CHAPTER II: ENDOSYNTACTIC UNITIES : Regular Stems

Section 1 : Description

A. Method of Analysis:

In the following section the endosyntactic unities found in the four dialects with "regular" stems will be listed. Ideally, the presentation should be deductive. The list of items capable of identification as formally identical should be presented first. That of items functionally identical should follow. Then on the basis of those inventories one should establish which items satisfy the criteria for structural identity and may be identified as members of the same endosyntactic unity.

In some comparisons of this sort such a presentation, besides being theoretically desirable, would be a practical necessity. In the case of the systems in question, however, this is not necessary. The four dialects are close enough in most respects to permit the analyst to list the sets of structurally identical items without going through the preliminary steps, after simple inspection of the data.

It would, of course, be possible to follow the former method in this description, though basing the results on the latter simpler method. However, this would introduce an undesirable redundancy into the description. Further, not all of those items which could, by the criteria established in the introduction, be described as structurally identical could be considered to belong to the same

endosyntactic unity: in some cases an item in one dialect satisfies the criteria for structural identity with two contrasting items in another. In such cases it is normally clear that the item in question belongs to the same unity as one of the two in the other dialect; but this decision cannot be made on the basis of statistical evidence alone. It seems far less confusing to the reader to list the endosyntactic unities, including under each the arguments for or against its establishment. This is permitted by the nature of the data, and is desirable in that it is much simpler and more economical, as well as more comprehensible.

B. Method of Presentation:

Each endosyntactic unity is treated separately. In each case the constructions constituting the unity are listed. The reference number used in the appendices is given for each construction (to facilitate reference), followed by the first or only formal variant given in the appendix in question. From the listing of the forms it will normally be possible to take formal identity of the patterns as established. In cases where doubt as to formal identity might exist for some reason, formal differences are indicated and justification for recognition of identity in spite of such differences given. Where more detailed information is desired, reference may be made to the construction inventories.

The function is briefly stated. If the functions differ, that of each construction is given. If they satisfy the criteria for functional identity, this is stated. If some reason for doubt exists, arguments

for and against identification are given. Again, full details are to be found in the appendices.

If the constructions are not both formally and functionally identical, but are to be considered structurally identical on the basis of the seventh criterion, again arguments on both sides will be given. In some cases exclusion of constructions despite formal and functional similarity to those included, or inclusion of a construction in one unity rather than another to which it might belong, will be similarly justified.

The endosyntactic unities are grouped according to the basic overall pattern of the systems described in Section 4 of Chapter I. Several differences should be noted. Certain subdivisions are further subdivided. In these cases the subdivision is formally based, the final suffix determining the grouping. It should be noted that the divisions made in the construction inventories, Appendices I-IV, are quite dissimilar; there divisions are made on a very broad functional basis which does not in fact reflect accurately the structures of the systems. The grouping used in construction inventories is intended primarily to allow the maximum amount of differentiation between constructions. If this were not done, one might be forced to assume in the construction inventories the existence of an identity between two constructions found in a single dialect, which might in the inventory of endosyntactic unities have to be treated as separate. It has, in fact, not been possible to eliminate all such cases, and there are others where one construction has been

treated as two in the construction inventories. However, no method of subdivision other than that used seems to yield results as convenient.

Besides the further subdivision, certain sections of the systems have not been discussed individually. These are the relative, copular, and conditional absolute constructions. The endosyntactic unities including these constructions have not been treated simply because each construction contained in those sections is a formal and functional equivalent of an independent non-jussive. It is clearly far simpler to state that fact at this point, omit the formal discussion of the unities in question, and indicate that, except where specifically stated, the unities involved are identical in dialectal distribution and formal and functional characteristics (allowing for regular differences in these areas) with their independent equivalents. The few independent non-jussive constructions which lack relative or copular equivalents will be specially indicated, if affirmative. In view of the rarity of negative copular constructions no mention will be made of their existence or non-existence. All negative independent non-jussives have relative equivalents, and all conditional independent non-jussives have relative and absolute equivalents.

In the construction inventories relative and copular constructions will be noted, but treated as if variants of the independent non-jussive construction being discussed. This is done in order to present formal and functional data on these constructions without greatly increasing the amount of space required and the redundancy of the discussion. Details of form of absolute conditional constructions,

unfortunately, are nowhere presented, due mainly to inadequate data on the tonal differences involved. The only differences, however, are in tone and, in Southern Thagicú, in negative prefix.

The sets of items which can be shown to be "class constituents", in the sense defined on page 35, will not be specified, but only symbolized as sets rather than individual morphemes. Subjective prefixes will be written S, objective prefixes written as O, verb stems as V, and negative prefixes, when necessary, as N. The negative prefixes, however, will normally be specified. While it can be shown that in Southern Thagicú the set of negative prefixes is a class constituent, even there there are only three members. Mwimbi has but one negative prefix. It is therefore possible in the construction inventories and here to give the forms of each member in full, without significantly increasing the complexity of the description. This is also desirable, allowing one to make clearer the formal differences in negative prefixes between Mwimbi and the Southern dialects, as well as certain variations in tonal pattern and otherwise, including vowel coalescences. The presence of the objective prefixes is rarely indicated. In all cases an objective prefix immediately precedes the verb stem, it has little or no effect on other constituents, and if a form without an objective prefix exists it may be assumed that there also exists a similar form including one. Only where necessary has its presence been specified.

C. System of Labelling:

For purposes of reference, each division of the set of endosyntactic unities is given a four-letter label, which indicates its position in the system. Within these divisions there are further subdivisions, usually at least into affirmative and negative, in some cases based also on final suffix, which are numbered. The endosyntactic unities included in each subdivision are differentiated from one another by a letter placed after the subdivision label. The order within each subdivision is, where possible, determined by temporal reference, from furthest past to furthest future. Where this is not possible the order is essentially arbitrary.

These labels, with the additional differentiating lower-case letter, will be used in the inventory of unities, which will follow the same order of presentation. The terms used in describing the sets to which the labels given in the following chart apply have been defined earlier. Note that subdivision by final suffix has not been made in the case of the consecutives or jussives. Though in each case two final suffixes are found, the inventories are small enough to make subdivision unprofitable, and the functional differentiation is not great enough to make it desirable. It should also be pointed out here that the first letter (A) of each label is not functional in differentiating those given here, but serves to distinguish these from other sets of endosyntactic and morphologic unities to be given later. The labels are as follows:

Independent	Non-jussive	Indicative	AAAA.1: Independent Non-jussive Indicative : <u>-ire</u> (aff)
			AAAA.2: " " " : <u>-ire</u> (neg)
			AAAA.3: " " " : <u>-i:te</u> (aff)
			AAAA.4: " " " : <u>-i:te</u> (neg)
			AAAA.5: " " " : <u>-a</u> (aff)
			AAAA.6: " " " : <u>-a</u> (neg)
	Conditional	AAAB.1: " " Conditional: <u>-ire</u> (aff)	
		AAAB.2: " " " : <u>-ire</u> (neg)	
		AAAB.3: " " " : <u>-i:te</u> (aff)	
		AAAB.4: " " " : <u>-i:te</u> (neg)	
		AAAB.5: " " " : <u>-a</u> (aff)	
		AAAB.6: " " " : <u>-a</u> (neg)	
Jussive	AABA.1: " Jussive (aff)		
	AABA.2: " " (neg)		
Consecutive	ABAA.1: Consecutive (aff)		
	ABAA.2: " (neg)		
Subordinate	Relative Jussive	ACAA.1: Subordinate Jussive (aff)	
		ACAA.2: " " (neg)	
	Relative	ACBA.1-6: " Relative Indicative: not discussed, see AAAA.1-6	
		ACBB.1-6: " " Conditional: not discussed, see AAAB.1-6	
	Copular	ACCA.1-6: " Copular Indicative : not discussed, see AAAA.1-6	
		ACCB.1-6: " " Conditional: not discussed, see AAAB.1-6	
	Absolute	Indicative	ACDA.1: " Absolute Indicative : <u>-i:te</u> (aff)
			ACDA.2: " " " : <u>-i:te</u> (neg)
			ACDA.3: " " " : <u>-a</u> (aff)
			ACDA.4: " " " : <u>-a</u> (neg)
ACDA.5: " " " : <u>-e</u> (neg)			
Marginal	ACDB.1-6: " " Conditional: not discussed, see AAAB.1-6		
	ADAA.1: Marginal		

Section 2 : Inventory of Endosyntactic Unities

A. Independent Non-jussive Indicative : -ire (Affirmative): AAAA.1

<u>AAAA.la</u> : Kik. S+à+V+íré	DA.Ola Emb. S+à+V+íré	FA.Ola
Kam. S+à+V+íê	EA.Ola Mwi. S+à+V+íré	GA.Ola

The above constructions may be considered formally identical, the absence of r in Kamba being regular. The Kikuyu and Embu are functionally identical, referring to past time earlier than the day before that of reference. Though the Mwimbi and Kamba show slight differences from them and from one another, they qualify for functional identity by either the third or fourth of the criteria for identity. All have relative and copular equivalents. Structural identity may be recognized.

<u>AAAA.lb</u> : Kik. S+râ:+V+ìrè	DA.Olb Emb. S+râ:+V+ìrè	FA.Olb
Kam.	Mwi. S+râ:+V+ìrè	GA.Olb

The formal identity of these is clear. The Kikuyu and Embu are completely identical functionally, referring to action on the day prior to that of reference. Though wider in range of application, the Mwimbi construction still may be considered functionally identical. The three may therefore be recognized as structurally identical members of the same endosyntactic unity. All have relative and copular equivalents.

<u>AAAA.lc</u> : Kik.	Emb.	
Kam. S+nâ:+V+ìè	EA.Olb Mwi.	

Though this construction might be considered functionally identical to those included in AAAA.lb, formal identity may not be recognized.

Besides, it differs functionally in referring to a very wide range of past time earlier than the day of reference. It overlaps with EA.01a (see AAAA.1a) in temporal reference, the other being used exclusively in narrative contexts, where this is almost never used. Structural identity with the constructions of AAAA.1b cannot be recognized, and this is therefore considered to be an endosyntactic unity peculiar to Kamba. Relative and copular equivalents occur.

<u>AAAA.1d</u> : Kik. S+V+ířè	DA.01c Emb. S+V+ířè	FA.01c
Kam. S+V+íè	EA.01c Mwi. S+V+ìré	GA.01c

Despite the variability of tonal pattern associated with these constructions, as detailed in the appendices, formal identity may readily be recognized. All are also functionally identical, being used of past action on the day of reference. They easily satisfy the criteria for formal identity. Relative and copular equivalents of all four are found.

B. Independent Non-jussive Indicative : -ire (Negative): AAAA.2

<u>AAAA.2a</u> : Kik. S+ [́] tí+à+V+ířé	DA.02a Emb. S+ [̀] tí+á+V+ířé	FA.02a
Kam.	Mwi. S+tâ:+V+ířé	GA.02a

The identity of the Kikuyu and Embu patterns is clear. Though the Mwimbi involves a contraction and a negative prefix formally distinct from that used in the others, its identity with them may be recognized¹. The Kikuyu and Embu are identical in function, referring to the past earlier than the day before that of reference. The Mwimbi, though functionally identical in that its range includes the whole of

that of the others, is also used of events on the day before that of reference. The three are in any case structurally identical. Relative equivalents of each exist ².

AAAA.2b: Kik.

Kam.

Emb.

Mwi. S+tí+V+íré

GA.02b

This construction has no parallel in other dialects, functionally identical constructions being drastically different in form. Formal parallels are found, but only used as "emphatic negatives" with affirmative meaning, and so ineligible for treatment here. This is therefore recognized as an endosyntactic unity peculiar to Mwimbi, its reference being to the past on the day of reference. A relative equivalent is found.

C. Independent Non-jussive Indicative : -í:te (Affirmative): AAAA.3

AAAA.3a: Kik. S+a+V+í:té

DA.03a | Emb. S+a+V+í:té

FA.03a

Kam. S+a+V+í:tê

EA.03a | Mwi. S+a+V+í:tê

GA.03a

The formal identity of the four is obvious. In function all are identical (except for perhaps a few details of usage), referring to actions which had been initiated prior to a point in the past earlier than the day before that of reference and which were at that time still relevant, with results still in effect. The Kamba and Mwimbi may differ slightly in exact temporal range, but still qualify as functionally identical. The four are therefore structurally identical. Each of these has relative and copular equivalents.

<u>AAAA.3b</u> : Kik. S+râ:+V+î:tè	DA.03b	Emb. S+râ:+V+î:tè	FA.03b
Kam.		Mwi. S+râ:+V+î:tè	GA.03b

The constructions are clearly formally identical. The Embu and Mwimbi are exactly identical in function, referring to actions which, at a point in the past on the day of reference or that preceding it, had already been initiated, when their results were at the point specified still in effect. The Kikuyu is similar, but its temporal range is restricted to the day before that of reference. It too, however, may be said to be functionally identical, its total range being included in that of the others. Structural identity may accordingly be assumed. Relative and copular forms occur.

<u>AAAA.3c</u> : Kik.		Emb.
Kam. S+nâ:+V+î:tè	EA.03b	Mwi.

Though identical in function with the Kikuyu DA.03b (see AAAA.3b), this cannot be called formally identical. It is therefore not included in that unity, but constitutes an endosyntactic unity peculiar to Kamba. Relative and copular forms occur.

<u>AAAA.3d</u> : Kik. S+kũ+V+î:té	DA.03c	Emb.
Kam.		Mwi.

This is used of actions which had been initiated prior to a point in the past on the day of reference whose results were still in effect. It constitutes an endosyntactic unity peculiar to Kikuyu, and has both relative and copular equivalents.

<u>AAAA.3e</u> : Kik.		Emb.
Kam. S+í:+V+ĩ:tè	EA.03c	Mwi.

This is identical in function with Kikuyu DA.03c (AAAA.3d). The two may not, however, be included in the same unity, as they are clearly not identical in form. This therefore constitutes an endosyntactic unity peculiar to Kamba. It has relative and copular equivalents.

<u>AAAA.3f</u> : Kik. S+V+í:tè	DA.03d	Emb. S+V+í:tè	FA.03c
Kam. S+V+í:tè	EA.03d	Mwi. S+V+í:tè	GA.03c

Formal identity clearly exists. The four are also identical in function, each referring to action initiated prior to the point of reference and having results in effect at that time. They are therefore structurally identical. Each has equivalent relative and copular forms.

D. Independent Non-jussive Indicative : -ĩ:te (Negative): AAAA.4

<u>AAAA.4a</u> : Kik. S+ [́] tí+à+V+í:té	DA.04a	Emb. S+ [̀] tí+á+V+í:té	FA.04a
Kam. S+ [̀] tí+à+V+í:tè	EA.04a	Mwi. S+tâ:+V+í:té	GA.04a

The Kikuyu, Kamba, and Embu are clearly identical in form. Despite the predictable contraction and distinct negative prefix, the Mwimbi may also be considered formally identical. In function all refer to actions initiated prior to a point in the past earlier than the day before that of reference. The Mwimbi also refers to points in the past on the day of reference and that before it. Despite this and the slightly different reference of the Kamba form, all may be considered functionally identical, and structural identity may be recognized. All of these have relative counterparts.

<u>AAAA.4b</u> : Kik. $\acute{S}+t\acute{i}+r\acute{a}:+V+i:t\grave{e}$	DA.O4b	Emb. $\grave{S}+t\acute{i}+r\acute{a}:+V+i:t\grave{e}$	FA.O4b
Kam.		Mwi.	

Formal identity is clear. In function, though the Kikuyu refers to actions initiated prior to a point in the past on the day before that of reference, while the Embu is used also of the past on the day of reference, they may be considered identical. They are therefore structurally identical. Each has equivalent relatives.

<u>AAAA.4c</u> : Kik.		Emb.
Kam. $\grave{S}+t\acute{i}+n\hat{a}:+V+i:t\grave{e}$	EA.O4b	Mwi.

In function this is identical with Kikuyu DA.O4b (AAAA.4b). In form, however, it is different, and it accordingly constitutes an endosyntactic unity peculiar to Kamba. A relative equivalent is found.

<u>AAAA.4d</u> : Kik. $\acute{S}+t\acute{i}+k\grave{u}+V+i:t\grave{e}$	DA.O4c	Emb.
Kam.		Mwi.

This construction, peculiar to Kikuyu, is used of actions initiated prior to a point in the past on the day of reference, and constitutes an independent endosyntactic unity. A relative equivalent exists.

<u>AAAA.4e</u> : Kik.		Emb.
Kam. $\grave{S}+t\acute{i}+i:+V+i:t\grave{e}$	EA.O4c	Mwi.

This is functionally identical with DA.O4c (AAAA.4d), but formally distinct. It is an independent endosyntactic unity. A relative occurs.

<u>AAAA.4f</u> : Kik. $\acute{S}+t\acute{i}+V+i:t\grave{e}$	DA.O4d	Emb. $\grave{S}+t\acute{i}+V+i:t\hat{e}$	FA.O4c
Kam. $\grave{S}+t\acute{i}+V+i:t\hat{e}$	EA.O4d	Mwi. $S+t\acute{i}+V+i:t\hat{e}$	GA.O4b

The formal identity of these is clear, despite the several variants of each noted in the construction inventories. In function they are also identical, used of actions initiated prior to the point of reference with

results in effect at that point. Structural identity may be recognized. Relative counterparts of each exist.

E. Independent Non-jussive Indicative : -a (Affirmative): AAAA.5

<u>AAAA.5a</u> : Kik. S+à+ná+V+à	DA.03e	Emb. S+à+ná+V+à	FA.03d
Kam.		Mwi.	

The formal identity of the two is obvious. In function also they are identical, being used of action performed at an indefinite point in the past, and are therefore structurally identical. Each has a relative equivalent, but no copular counterpart exists.

<u>AAAA.5b</u> : Kik.		Emb.	
Kam.		Mwi. S+râ:+V+á	GA.03d

This is functionally identical with AAAA.5a, but formally distinct. It is therefore considered to constitute an endosyntactic unity peculiar to Mwimbi. Copular and relative equivalents have not been found, but probably at least a relative exists.

<u>AAAA.5c</u> : Kik.		Emb.	
Kam. S+nâ:+V+à	EA.03e	Mwi.	

This is identical with the constructions of AAAA.5a and AAAA.5b in function, but not in form. It must therefore constitute an endosyntactic unity peculiar to Kamba. It has copular and relative equivalents.

<u>AAAA.5d</u> : Kik. S+kũ+V+à	DA.03f	Emb.	
Kam. S+kũ+V+à	EA.03f	Mwi. S+kũ+V+à	GA.03e

The three patterns are identical. In Kikuyu, however, there exist formal peculiarities which should be noted, in some cases constructs of this not being used, an exosyntactic construction being substituted. In function, these seem identical, indicating that at the point of reference

the action has already been performed. All are rare, however, the Kikuyu and Kamba especially so, and details of usage are uncertain. Structural identity may, however, be recognized. Relative, but not copular, equivalents of all three exist.

<u>AAAA.5e</u> : Kik. S+á+V+à	DA.03g Emb. S+à+V+à	FA.03e
Kam. S+á+V+à	EA.03g Mwi. S+â+V+à	GA.03f

The four are clearly identical in form. In function each refers to action completed in the immediate past relative to the point of reference. In addition each is occasionally found in the apodoses of conditional clauses referring to future time. The latter usage, however, is rare enough to make it impossible to be certain whether it is in fact a distinct function or a variant of the normal usage, and therefore it has been decided to treat these as single constructions. Functional identity certainly exists, and structural may be assumed. All have relative equivalents. In Kikuyu, Kamba, and Embu copular forms exist, and in Kikuyu and Embu are used more often than the independent, but Mwinbi shows no copular except under Kikuyu influence.

<u>AAAA.5f</u> : Kik. S+râ:+V+á	DA.Old Emb. S+râ:+V+á	FA.Old
Kam.	Mwi.	

The two are of course formally identical. They are also functionally so, referring to actions being performed at the time of reference. They are therefore structurally identical. Both have relative and copular forms, and in each case the copular is preferred to the independent. Note the formal identity with the functionally different AAAA.5b.

<u>AAAA.5g</u> : Kik. $\acute{S}+k\ddot{u}+V+\acute{a}$	DA.Ole	Emb. $S+k\ddot{u}+V+\grave{a}$	FA.Ole
Kam. $S+k\ddot{u}+V+\grave{a}$	EA.Old	Mwi. $S+k\ddot{u}+V+\grave{a}$	GA.Old

Allowing for differences in the behavior of the element -kũ- (see construction inventories), these are identical in form. The Kikuyu is used of actions beginning to be performed at the time of reference and actions in the immediate future. The Kamba refers to actions performed at the point of reference and future actions up to the end of the day of reference. It is thus identical with the Kikuyu, in that the latter's total range is included. The Embu refers to future action on the day of reference and is similarly identical with the Kamba (and hence the Kikuyu). The Mwimbi is used of present (and sometimes immediate future) and is also functionally identical with the Kamba. Despite their differences, these may be considered functionally, and hence structurally, identical. All also share reference to a fairly wide range of future time, if the existence at the time of reference of the intention to perform the action is indicated. In all cases relative and copular equivalents exist, and in all the copular is preferred to the independent. Note the formal identity with the constructions of AAAA.5d, which lack copular forms.

<u>AAAA.5h</u> : Kik.		Emb.	
Kam. $S+\acute{i}:+V+\acute{a}$	EA.Ole	Mwi. $\grave{S}+r\acute{i}:+\check{V}+\hat{a}$	GA.Ole

Despite the lack of r in Kamba, the two are formally identical. In function, both are used in certain environments as equivalents of the corresponding constructions in AAAA.5g, referring to action taking place at the present time. They are therefore functionally identical, and also structurally. A wider range of meaning is given for the Mwimbi in

Appendix IV. This will be discussed below. Neither has relative or copular equivalents. They are most frequently used in questions and answers thereto, rather than in narrative.

AAAA.5i:	Kik. Š+rí:+V+á	DA.Olf		Emb.	
	Kam. Š+í:+V+á	EA.Olf		Mwi. Š+rí:+V+á	GA.Ole

Formal identity may be recognized, the absence of r in Kamba being regular. These are also formally identical with the constructions of AAAA.5h. Besides functional differences, the Kamba EA.Ole included here contrasts formally (in tone) and functionally with EA.Olf (AAAA.5h). The Kikuyu refers to near but not immediate future, to actions on the day of reference more than an hour or so later than the point of reference. The Kamba and Mwimbi are functionally identical in that they also refer to the near future. They have a semantic element of emphasis, certainty, or near command which is lacking in the Kikuyu. Structural identity may be recognized. The Kikuyu has relative and copular forms. The Kamba has a relative, but neither Kamba nor Mwimbi has an equivalent copular. The Kamba construction may be used with ní, but this differs from the normal usage of copulars, resembling more closely the use of ní with jussives; see Appendix II.

It will be noted that GA.Ole was included in AAAA.5h as well as in this unity. Its inclusion in AAAA.5h is certain, but it is doubtful whether it should also be included here. It is not infrequent to find in the same dialect two formally identical but functionally distinct constructions. When the functions are similar it is not impossible that there should be no reason within the dialect for differentiating the two,

nor is the exact identity even in tone impossible. However, the similarity of function that makes it plausible that an item treated as one construction in the context of a single dialect might in fact be two could also serve as a contrary argument. That of two structurally identical constructions one should have a broader function is far less abnormal. Only the fact of the wider range of function/meaning including that of another unity containing formally identical constructions makes the other interpretation seem justified. If AAAA.5h did not exist, there would be no reason to separate the two meanings of the Mwimbi GA.Ole. At present, it seems safer to treat that construction as in fact two homophonous constructions belonging to distinct unities. One should not, however, ignore the at least equally high probability of the other interpretation.

AAAA.5j: Kik. Š+kà:+V+à	DA.Olg	Emb. Š+kà:+V+à	FA.Olg
Kam. Š+kâ:+V+â	EA.Olg	Mwi. S+kâ:+V+â	GA.Olg

Despite tonal differences, the formal identity of these is clear. In function, all are identical, referring to any future action after the day of reference. The Mwimbi form is also used of future action on the day of reference itself. The Kikuyu and Embu show both relative and copular equivalents. Kamba and Mwimbi have relatives, but lack copulars.

AAAA.5k: Kik.	Emb. Š+kâ:+V+â	FA.Olg
Kam.	Mwi.	

This is identical in form with those in AAAA.5j. However, it seems to contrast in form and function with the Embu construction included there, FA.Olg. This is used of actions at an indefinite point in the future, while the other refers to specific points of time. This may in fact be

only a conditioned variant of FA.Olf. Some support for its existence lies in the presence in Kamba of a functionally identical construction contrasting in tone and vowel-length with the construction included in AAAA.5j. While this is not attested in my Kamba informant's speech, and hence not included here, descriptions of its form and function may be found in Whiteley and Muli, Practical Introduction to Kamba, page 100, and Ndumbu and Whiteley, "Some Problems of Stability and Emphasis in Kamba One-word Tenses", page 171. It therefore seems better to recognize FA.Olg as a separate construction and endosyntactic unity. A relative equivalent exists, but it is uncertain whether there is a copular. If a copular form exists, it cannot be distinguished from that of FA.Olf (AAAA.5j).

F. Independent Non-jussive Indicative : -a (Negative): AAAA.6

<u>AAAA.6a</u> : Kik. $\acute{S}+t\acute{i}+\grave{a}+n\acute{a}+V+\grave{a}$	DA.O4e	Emb. $\grave{S}+t\acute{i}+a'+n\acute{a}+V+\grave{a}$	FA.O4d
Kam.		Mwi.	

The formal identity of these two is obvious. In function they are identical, used of actions never performed in the past. They are therefore also identical in structure. Both have relative equivalents.

<u>AAAA.6b</u> : Kik.		Emb. $\acute{S}+t\acute{i}+a'+V+\acute{a}$	FA.O4e
Kam. $\acute{S}+t\acute{i}+a'+V+\acute{a}$	EA.O2a/EA.O4e	Mwi. $S+t\hat{a}'+V+\acute{a}$	GA.O4d

These, despite the predictable differences in the Mwimbi negative prefix, are identical in form. In function they are identical with one another and also with the constructions of AAAA.6a, from which they differ in form. The Mwimbi construction is said to have a wider range; see AAAA.6g. The Kamba is treated as two constructions in Appendix II. EA.O4e

has the function described here, while to EA.02a is attributed a reference to past action earlier than the day before that of reference, in narrative contexts. Though these two functions are not identical, EA.02a and EA.04e may still, by the seventh of the criteria for identity, be structurally identical, as the functions are certainly very close semantically. This being so, since no construction exists in the other dialects to which EA.02a might more appropriately be considered to be identical, it seems best to assume that both in fact represent one construction. They were separated in the construction inventory only because of the semantically based subdivisions made there. The Kamba and Mwimbi, despite slightly larger ranges, both include that of the Embu. The three may therefore be said to be functionally and structurally identical. All have relative equivalents.

AAAA.6c: Kik.

Kam.

Emb.

Mwi. S+tí+râ:+V+a

GA.04c

This, like the constructions in AAAA.6a and AAAA.6b, refers to actions never performed. In form it can be associated with neither unity, and must therefore be treated as an endosyntactic unity peculiar to Mwimbi. It should be noted that this is possibly not in fact a Mwimbi form. It is very rarely used, GA.04d (in AAAA.6b) being preferred. A relative equivalent exists.

AAAA.6d: Kik.

Kam.

Emb.

Mwi. S+tí+kù+V+a

GA.04e

Though the status of this construction is uncertain (see Appendix IV), it seems to be used of actions performed prior to the point of reference. Its exact function is, however, uncertain. It constitutes an endosyntactic

unity peculiar to Mwimbi. A relative equivalent exists, probably.

AAAA.6e: Kik.

Kam. Š+ti+née+V+à

	Emb.
EA.02b	Mwi.

This is used of action performed at a point on, or in some cases earlier than, the day before that of reference. It is not used in narrative contexts. It constitutes an endosyntactic unity peculiar to Kamba, and has a relative equivalent.

<u>AAAA.6f</u> : Kik.	Š+ti+nà+V+à	DA.02b/DA.04f	Emb.	Š+ti+nà+V+à	FA.02b/FA.04f
	Kam. Š+ti+nâ+V+à	EA.02c/EA.04f	Mwi.		

The formal identity of these constructions is clear. In function, each is used of actions completed immediately before the point of reference (DA.04f, EA.04f, FA.04f). The Kamba (EA.02c) is also used of actions performed in the past on the day of reference. The Kikuyu and Embu (DA.02b, FA.02b) are also used of actions in the past on the day of reference and that preceding it. Functional identity may therefore be recognized. In each case two constructions are recognized in the construction inventories. This is due to the method of subdivision used there, which differs from that found here. The two functions in each case are certainly close enough that the "constructions" in each dialect qualify for structural identity as members in fact of the same construction, especially in view of the complete formal identity. Structural identity of the three resulting constructions may be recognized. Each has a relative equivalent.

<u>AAAA.6g</u> : Kik.	Emb.	
Kam.		Mwi. S+tâ:+V+à

GA.O4d

This construction has already been discussed under AAAA.6b. The construction there was used of actions never performed. The pattern is also, however, used with reference to actions completed shortly before the point of reference, identical with the function of AAAA.6f. Though in the context of a single dialect and the framework for subdivision used in the construction inventories there was insufficient reason to treat GA.O4d as two constructions, it cannot be denied that the functions are quite distinct. Though the separate existence of this unity cannot be confirmed by the inclusion of a construction from another dialect, it seems safest, in view of the significant difference, to treat this as representing two structural units, one belonging to AAAA.6b, the other constituting an endosyntactic unity peculiar to Mwimbi. It cannot, however, be denied that this may be incorrect. A relative exists.

<u>AAAA.6h</u> : Kik. Š+ti+râ:+V+a'	DA.O2c	Emb. Š+ti+râ:+V+à	FA.O2c
Kam.			Mwi.

The two are clearly identical in form. In function too they are identical, referring to actions in progress at the point of reference. They are also formally identical with AAAA.6c, but the functions are different enough to justify separation. Relative counterparts are found.

<u>AAAA.6i</u> : Kik. Š+ti+kũ+V+à	DA.O2d	Emb. Š+ti:+kũ+V+à	FA.O2d
Kam. Š+ti+kũ+V+à	EA.O2d		Mwi. S+ti+kũ+V+à

The formal identity of the four is certain, all differences being regular or predictable. The Kikuyu refers to action in immediate or

near future, not more than a few hours later than the point of reference. The Kamba refers to present action, and future action up to the end of the day of reference. The Embu is used of present and future action, sometimes up to a few days from the point of reference, but more commonly with the same range as the Kamba. The Mwimbi is used of present or immediate future action. All may be used of a wider range of future time, where the existence at the point of reference of intent to perform the action is indicated. They qualify for recognition as functionally, and hence structurally, identical. All have relative equivalents. Note the formal, but not functional, identity with AAAA.6d.

<u>AAAA.6j</u> : Kik. $\acute{S}+t\acute{i}+V+a$	DA.02e	Emb.
Kam.		Mwi.

There are formal peculiarities with this construction; see Appendix I. This seems to refer to future actions on the day of reference initiated at the point of reference or in the immediate future. Its exact function, unfortunately, is difficult to define relative to those of other constructions. Despite formal identity with AAAA.6k and AAAA.6l, it is necessary, as will be shown below, to treat this as an endosyntactic unity peculiar to Kikuyu. A relative exists.

<u>AAAA.6k</u> : Kik.		Emb.
Kam. $\acute{S}+t\acute{i}+V+a'$	EA.02f	Mwi.

This refers to future time in general. It is, however, used only of actions whose performance is impossible. Though this and AAAA.6j are formally identical and to some extent semantically similar, there are reasons for rejecting their structural identification. The functions are

not in fact very close, and there are formal differences in other variants than those shown which lead one to doubt the identification. It seems best to treat this as an endosyntactic unity peculiar to Kamba. It has a relative counterpart.

AAAA.6l: Kik.

Kam.

Emb.

Mwi. S+^íti+^áV+^à

GA.02d

This might be considered formally identical with either AAAA.6j or AAAA.6k. By the strict application of the criteria for identity, it might be considered functionally (and hence structurally) identical with both, as it is used of any time in the future, including the range of AAAA.6j and paralleling that of AAAA.6k. However, the formal differences in the former and functional specialization of the latter make it safer to treat the three as distinct. Though structural identity can be recognized, it is better to recognize three endosyntactic unities, not one, though remembering the possibility of the other interpretation. A relative equivalent is found.

AAAA.6m: Kik. S+^íti+^íri:+V+^â

Kam. S+^íti+^áV+^á

DA.02f | Emb.

EA.02e | Mwi.

The patterns cited are not identical. The variants used with subjective prefixes of Classes B, 1, 3, 4, and 9, however, are identical in form. For some reason after -ti- an irregular contraction has occurred in the Kamba. Because of the identity of other variants, however, formal identity between the two constructions may probably be recognized. The Kikuyu is used of future actions commencing usually on the day of reference more than an hour or so later than the point of reference. The Kamba is

used of any action at a specified time in the future. Functional and structural identity may on this basis be assumed. It is true that the formal and functional differences are nearly as great as those between AAAA.6j and AAAA.6k. However, here the formal difference is limited to this variant; the other variants are identical in form, and it should be noted that the tones of EA.02e.i and EA.02e.ii indicate the equivalence of the two variants. Further, the distinction in function here is by no means as great as that between AAAA.6j and AAAA.6k. Both have relative equivalents, which show formal identity to one another.

<u>AAAA.6n</u> : Kik. Ṣ+ṭí+kà:+V+à	DA.02g Emb. Ṣ+ṭí+kà:+V+â	FA.02e
Kam. Ṣ+ṭí+kà:+V+'á	EA.02g Mwi. S+ṭí+kâ:+V+à	GA.02e

Despite predictable differences in Mwimbi, formal identity may be recognized. In function the Kikuyu and Embu are identical, referring to future action later than the day of reference. The Kamba and Mwimbi are similarly identical, being used of actions which will never be performed (in Kamba this is distinguished from impossible future action - see AAAA.6k). The two sets are semantically close enough for recognition of functional and structural identity. All have relative equivalents.

G. Independent Non-jussive Conditional : -ire (Affirmative): AAAB.1

<u>AAAB.1a</u> : Kik. S+ngí+a`+V+íré	DA.05a Emb. S+ngí+a`+V+íré	FA.05a
Kam.	Mwi. S+ngí+a`+V+íré	GA.05a

The formal identity of the three is clear. Their functions are also identical, all referring to actions possibly performed earlier than the day before that of reference. The Mwimbi is rare. Structural identity may be recognized. All have relative, copular, and absolute equivalents.

<u>AAAB.1b</u> : Kik. S+ngí+râ:+V+ìrè	DA.05b	Emb. S+ngí+râ:+V+ìrè	FA.05b
Kam.		Mwi. S+ngí+'râ:+V+ìrè	GA.05b

The three are identical in form. All refer to possible action in the day preceding that of reference. The range of the Mwimbi also includes action in the past on the day of reference, and may extend further into the past (see Appendix IV). Functional and structural identity may be recognized. All have relative, copular, and absolute equivalents.

<u>AAAB.1c</u> : Kik. S+ngí+V+ìrè	DA.05c	Emb. S+ngí+V+ìrè	FA.05c
Kam.		Mwi.	

Formally these are identical. In function, both are used of possible action on the day of reference in the past. Functional and structural identity may therefore be assumed. Relatives, copulars, and absolutes exist.

<u>AAAB.2a</u> : Kik. S+ti+ngí+a+V+ìré	DA.06a	Emb. S+ti+ngí+a+V+ìré	FA.06a
Kam.		Mwi. S+ti+ngí+a+V+ìré	GA.06a.06a
Kam.		Mwi. S+ti+ngí+a+V+ìré	GA.06a

These are identical in form. The Kikuyu and Embu both refer to impossible (or possibly non-performed) actions at a point in the past earlier than the day before that of reference. The Mwimbi is used of times more than a few days earlier than the point of reference, but may still be considered functionally identical with the others. Structural identity may be recognized. Each has relative and absolute equivalents.

<u>AAAB.2b</u> : Kik. S+ti+ngí+râ:+V+ìrè	DA.06b	Emb. S+ti+ngí+râ:+V+ìrè	FA.06b
Kam.		Mwi. S+ti+ngí+râ:+V+ìrè	GA.06b

These are formally identical. The Kikuyu and Embu are used of the

day before that of reference. The Mwimbi is used of actions in the past on the day of reference and up to at least a few days earlier. As its range includes that of the other two, their functional identity may be recognized. One may therefore assume structural identity. Each has relative and absolute counterparts.

<u>AAAB.2c</u> : Kik. S+ti+ngí+V+irè	DA.06c	Emb. S+ti+ngí+V+irê	FA.06c
Kam.		Mwi.	

Formal identity is obvious. In function the two are identical, being used of actions in the past on the day of reference. Structural identity may certainly be recognized. Each has relative and absolute equivalents.

I. Independent Non-jussive Conditional : -i:te (Affirmative): AAAB.3

<u>AAAB.3a</u> : Kik. S+ngí+a+V+i:té	DA.07a	Emb. S+ngí+a+V+i:té	FA.07a
Kam.		Mwi.	

The formal identity of these is clear. In function, they are used identically, of actions possibly initiated prior to a point in the past earlier than the day before that of reference. Structural identity may be recognized. Relative, copular, and absolute forms exist.

<u>AAAB.3b</u> : Kik. S+ngí+râ:+V+i:tè	DA.07b	Emb. S+ngí+râ:+V+i:tè	FA.07b
Kam.		Mwi.	

Formal identity clearly exists. These are also functionally identical. The Kikuyu is used of actions possibly initiated prior to a point on the day before that of reference. While the Embu is also used of points in the past on the day of reference, its range includes that of the other, and the two may be said to be structurally identical. Each has relative, copular, and absolute equivalents.

AAAB.3c: Kik. S+ngí+V+í:tè

Kam.

DA.07c | Emb. S+ngí+V+í:té

Mwi.

FA.07c

These are identical in form. In function, each is used of actions which might have been initiated before the point of reference, and they are identical in function and structure. Relatives, copulars, and absolutes exist.

AAAB.4a: Kik. S+ti+ngí+a+V+í:té DA.08a | Emb. S+ti+ngí+a+V+í:té FA.08a

AAAB.4a: Kik. S+ti+ngí+a+V+í:té

Kam.

DA.08a | Emb. S+ti+ngí+a+V+í:té FA.08a

Mwi.

Formal identity clearly exists. Each refers to actions initiated before a point in the past earlier than the day before that of reference. They are functionally and structurally identical. Relatives and absolutes exist corresponding to both.

AAAB.4b: Kik. S+ti+ngí+râ:+V+í:tè DA.08b | Emb. S+ti+ngí+râ:+V+í:té FA.08b

Kam.

Mwi.

These are clearly identical in form. They refer to actions initiated before a point on the day before that of reference. The Embu also refers to actions initiated before points on the day of reference in the past, which does not prevent recognition of functional and structural identity. Each has relative and absolute equivalents.

AAAB.4c: Kik. S+ti+ngí+V+í:té

Kam.

DA.08c | Emb. S+ti+ngí+V+í:té

Mwi.

FA.08c

Formal identity exists. Both refer to actions which might not or could not have been initiated before the point of reference. Functional and structural identity exist. Both have relative and absolute equivalents.

K. Independent Non-jussive Conditional : -a (Affirmative): AAAB.5

<u>AAAB.5a</u> : Kik. S+ngí+à+ná+V+à	DA.07d	Emb. S+ngí+á+ná+V+à	FA.07d
Kam.		Mwi.	

These formally identical constructions are used of actions possibly performed at some indefinite time in the past. They are functionally identical, and therefore qualify as structurally identical. Each has relative, absolute, and copular equivalents.

<u>AAAB.5b</u> : Kik. S+ngí+á+V+á	DA.07e	Emb. S+ngí+á+V+á	FA.07e
Kam.		Mwi.	

These are identical in form. In function, each refers to actions possibly completed shortly before the point of reference. They are also found at times with a sense apparently present or future, whose exact relationship to the other function is unclear. They are, however, functionally identical, and therefore identical structurally. Relative, copular, and absolute equivalents of each are found.

<u>AAAB.5c</u> : Kik. S+ngí+râ:+V+á	DA.05d	Emb. S+ngí+râ:+V+á	FA.05d
Kam.		Mwi.	

Formal identity clearly exists. These are identical in function, indicating actions possibly in progress at the time of reference. Structural identity may be recognized. Relative, copular, and absolute forms exist.

<u>AAAB.5d</u> : Kik. S+ngí+V+á	DA.05e	Emb. S+ngí+V+á	FA.05e
Kam.		Mwi. S+ngí+V+á	GA.05c

Formal identity is obvious. All refer to actions possible at the present, including actions to be performed in the future, where the possibility of performance is determined at the present. They are identical

in function and structure. Relative, copular, and absolute forms are found.

AAAB.5e: Kik.

Kam.

Emb.

Mwi. $\acute{S}+r\acute{r}\acute{i}:+ng\acute{i}+V+\grave{a}$ GA.05d

The exact function is difficult to determine. It seems to refer to the future existence of the possibility of the action. It is differentiated formally from the constructions of AAAB.5f, which it seems to resemble semantically. In form and function it contrasts with those of AAAB.5d. It is here considered an endosyntactic unity peculiar to Mwimbi. Relative and absolute equivalents exist, but no copular counterpart is found.

AAAB.5f: Kik. $S+ng\acute{i}+k\grave{a}:+V+\grave{a}$

Kam.

DA.05f Emb. $S+ng\acute{i}+k\grave{a}:+V+\grave{a}$ FA.05f

Mwi.

These formally identical constructions refer to the future existence of the possibility of the action. The Kikuyu seems also to be used where the present possibility of the action's performance after the day of reference exists, but functional identity may be recognized, as well as structural identity. Relative, absolute, and copular equivalents exist.

L. Independent Non-jussive Conditional : -a (Negative): AAAB.6

AAAB.6a: Kik. $\acute{S}+t\acute{i}+ng\acute{i}+\grave{a}+n\acute{a}+V+\grave{a}$

Kam.

DA.08d Emb. $\acute{S}+t\acute{i}+ng\acute{i}+\grave{a}+n\acute{a}+V+\grave{a}$ FA.08d

Mwi.

These are clearly identical in form. Each refers to actions never performed in the past. They are functionally and structurally identical. Relative and absolute forms of each exist.

AAAB.6b: Kik. $\acute{S}+t\acute{i}+ng\acute{i}+\grave{a}+V+\grave{a}$

Kam.

DA.08e Emb. $\acute{S}+t\acute{i}+ng\acute{i}+\grave{a}+V+\grave{a}$ FA.08e

Mwi.

Formal identity exists. In function, these are used of actions com-

pleted shortly before the point of reference, also at times with what seems to be a present or future reference. The two are functionally identical, and structural identity may be recognized. Relative and absolute equivalents of each exist.

<u>AAAB.6c</u> : Kik. $\acute{S}+t\acute{i}+ng\acute{i}+r\acute{a}:+V+\acute{a}$	DA.06d	Emb. $\grave{S}+t\grave{i}+ng\grave{i}+r\acute{a}:+V+\grave{a}$	FA.06d
Kam.		Mwi.	

Formal identity may be recognized. In function these identically refer to actions which might not or could not be in the process of being performed at the time of reference. Structural identity exists. Both have equivalent relative and absolute forms.

<u>AAAB.6d</u> : Kik. $\acute{S}+t\acute{i}+ng\acute{i}+V+\acute{a}$	DA.06e	Emb. $\grave{S}+t\grave{i}+ng\grave{i}+V+\hat{a}$	FA.06e
Kam.		Mwi. $S+t\grave{i}+ng\grave{i}+V+\hat{a}$	GA.06e

These are formally identical. All are used of action whose performance is impossible or whose non-performance is possible at the time of reference. The Mwimbi is also used in a sense apparently equivalent to that of the constructions of AAAB.6e. While the Mwimbi might be treated as in fact two constructions, it is not certain that there is sufficient evidence to justify this analysis. It will therefore not be included in a separate unity as well as here. Structural identity of the three may be recognized. All have relative and absolute equivalents.

<u>AAAB.6e</u> : Kik. $\acute{S}+t\acute{i}+ng\acute{i}+k\grave{a}:+V+\acute{a}$	DA.06f	Emb. $\grave{S}+t\grave{i}+ng\grave{i}+k\grave{a}:+V+\hat{a}$	FA.06f
Kam.		Mwi.	

These are both formally and functionally identical. They are used of possible actions where the possibility commences in the future relative to the point of reference. The Kikuyu may also be used of actions after

the day of reference where the present possibility exists. Structural identity may be recognized. Each has relative and absolute equivalents.

M. Independent Jussive (Affirmative): AABA.l

<u>AABA.la</u> : Kik. V+â	DA.09a	Emb. V+'â	FA.09a
Kam. V+'â	EA.05a	Mwi. V+â	GA.07a

The four are identical in form. All show the same variation in final suffix with objective prefixes other than those of Class A. In function all are imperative; each is used with an enclitic when addressed to more than one person. Structural identity may be recognized.

<u>AABA.lb</u> : Kik. S'+V+è	DA.09b	Emb. S'+V+è	FA.0 b
Kam. S'+V+è	EA.05b	Mwi. S+V+è	GA.07b

Formal identity clearly exists. All are used in a variety of environments to express command, suggestion, purpose, result, desire, permission, and so forth. All are used with the proclitic ní for emphasis, but no copular form exists. All are used with the same enclitics as those mentioned under AABA.la when expressing a command or suggestion addressed to more than one person. Functional and structural identity exist.

<u>AABA.lc</u> : Kik. S'+kà+V+é	DA.09c	Emb. S'+kà+V+é	FA.09d
Kam. S'+kà+V+é	EA.05d	Mwi. S+kà+V+'é	GA.07d

These are formally identical. Each is used in the same contexts as the constructions of AABA.lb, differing only in indicating the existence of a spatial or temporal distance between the command, suggestion, and so forth, and the action proposed. Functional and structural identity exist. Like the constructions in AABA.lb, these are used with ní and the enclitic mentioned in commands addressed to more than one person.

<u>AABA.1d</u> : Kik. S+rô:+V+à	DA.09d Emb. S+rô:+V+à	FA.09g
Kam.	Mwi. S+rô:+V+à	GA.07f

These formally identical constructions are used identically. All are found expressing strong wishes, especially in formularized curses and blessings. Structural identity therefore exists. It should be noted that a structurally identical construction is found in other dialects of Kamba. My informant, however, was unaware of the construction, which may well be obsolescent due to its virtual restriction to semi-ritual contexts.

N. Independent Jussive (Negative): AABA.2

<u>AABA.2a</u> : Kik. S+ti+kà:+V+é	DA.10a Emb. S+ti+kà:+V+é	FA.10a
Kam. S+ti+kà:+V+!é	EA.06a Mwi. S+ti+kà:+V+!é	GA.08a

These are clearly identical in form. All are used to negate commands, suggestions, expressions of purpose, permission, desire, and so forth. They serve, in general, as the negative equivalent of any jussive construction, in Embu and Mwimbi even of subordinate jussives. Functional and structural identity may be recognized.

O. Consecutive (Affirmative): ABAA.1

<u>ABAA.1a</u> : Kik. S+ki+V+à	DA.11a Emb. S+ki+V+à	FA.11a
Kam. S+ki+V+à	EA.07d Mwi. S+ki+V+à	GA.09a

The formal identity of these constructions is clear. In function, the Kikuyu is used after verbs referring to action earlier in the past than the day before that of reference. The Embu is used after verbs referring to any time before the day of reference. The Mwimbi is identical with the Kikuyu, and the three may be called functionally and structurally

identical. The Kamba is not functionally identical with these, however. Besides being borrowed from another sub-dialect of Kamba, it is used exclusively in future contexts. Because of the exact formal identity, and the fact that tense distinctions are less clear in the consecutive series, and less important than elsewhere, it seems not unreasonable to consider that EA.07d may be recognized as structurally identical with the other three, on the basis of the seventh of the criteria for identity.

<u>ABAA.1b</u> : Kik. $\acute{S}+r\hat{a}:+V+a^{\grave{a}}$	DA.11b	Emb. Mwi.
Kam.		

This is used after verbs indicating action on the day before that of reference. It is considered an endosyntactic unity peculiar to Kikuyu.

<u>ABAA.1c</u> : Kik. $\acute{S}+a^{\grave{a}}+V+a^{\grave{a}}$	DA.11c	Emb. $S+a^{\grave{a}}+V+a^{\grave{a}}$ Mwi. $S+a^{\hat{a}}+V+a^{\grave{a}}$	FA.11b
Kam. $\acute{S}+a^{\grave{a}}+V+a^{\grave{a}}$	EA.07c		GA.09b

Formal identity clearly exists. The Kikuyu and Embu are used after main verbs referring to action in the past on the day of reference. The Kamba may be used as consecutive to any verb of past reference. The Mwimbi is used primarily after verbd referring to the past of the day of reference and a few days before, but may be used, as an alternative to GA.09a (in ABAA.1a), after any verb with past reference. Functional and structural identity may be considered to be present.

<u>ABAA.1d</u> : Kik. $\acute{S}+k\grave{a}+V+a^{\grave{a}}$	DA.11d	Emb. $\acute{S}+k\grave{a}+V+a^{\grave{a}}$ Mwi. $\acute{S}+k\grave{a}+V+a^{\grave{a}}$	FA.11c
Kam. $\acute{S}+k\grave{a}+V+a^{\grave{a}}$	EA.07b		GA.09c

Formal identity may be recognized. In function each is used of actions performed at approximately the same time as that of the main verb. Therefore they are most commonly found following habitual/continuative forms.

Functional and structural identity exist.

<u>ABAA.le</u> : Kik.		Emb.
Kam. S+i+V+a`	EA.07c	Mwi.

This is identical in function with EA.07d (in ABAA.la). It is used as consecutive to any verb with future reference. Formally it cannot be considered identical with the constructions in ABAA.la or those in ABAA.lf, and must be considered an endosyntactic unity peculiar to Kamba.

<u>ABAA.lf</u> : Kik. S+V+e`	DA.11e	Emb. S+V+e`	FA.11d
Kam.		Mwi. S+V+e`	GA.09d

These are formally identical. All are functionally identical, used in consecutive contexts after verbs with future reference. While the Mwimbi is only used after affirmative verbs, this does not alter its functional and structural identity with the others. It should be noted that to treat these as members of the endosyntactic unity AABA.lb would be possible. Formal identity is complete and the functions are close enough to allow recognition of identity by the seventh of the criteria for identity. While in other cases such identifications have been made, it seems inappropriate to do so here. There can be no objection to overlooking distinctions imposed by the artificial system of subdivision in the construction inventories, but recognition of structural identity in spite of the fact that the items in question belong to different major divisions seems less proper. Especially in the discussion of absolutes, there will be other cases where formal and functional identity could be said to exist, some being more plausible than this case. In some there are tonal differences, in some significant differences in function, in

some neither. If one is to continue to recognize the existence of the relative, copular, and perhaps absolute constructions as distinct units (which is desirable, in view of numerous formal and functional differences), one cannot allow identification across the borders of the major categories. If one is to reject structural identification in those cases, one must equally reject it in the case of the consecutives. Discussion of relationships across the boundaries of such divisions will be made in Chapter V. For the present, ABAA.lf and AABA.lb must be considered distinct.

ABAA.lg: Kik.

Kam.

Emb.

Mwi. $\acute{S}+V+'\acute{a}$

GA.09e

This is identical in form with GA.07c (in ACAA.la). In function it is not close enough to the homophonous construction to allow recognition of structural identity, even if recognition of identity between members of distinct major groupings were permitted. This is used as consecutive after negative verbs with future temporal reference.

ABAA.lh: Kik. $\acute{S}+k\grave{a}+V+\grave{e}$

Kam.

DA.11f | Emb.

| Mwi.

This is attested only in Kikuyu, but it is not improbable that structurally identical constructions are used in Embu and Mwimbi. This is formally identical with DA.09c (in AABA.lc), but recognition of structural identity is impossible. This is used in consecutive position after verbs with future reference, when there is a significant distance in space or time between the action preceding and that in question.

P. Consecutive (Negative): ABAA.2

<u>ABAA.2a</u> : Kik. $\acute{S}+t\grave{i}+V+è$	DA.12a	Emb.
Kam.		Mwi.

The only construction of this subdivision occurs in Kikuyu. The fact of the absence of such constructions in other dialects, combined with the fact that even this is not attested in my Kikuyu materials, casts some doubt upon the status of the construction and subdivision. This is said to be used in consecutive position after verbs of any temporal reference. In actual usage in my Kikuyu data, and in other dialects, the independent negative constructions are used. In any case, this must be considered an endosyntactic unity peculiar to Kikuyu.

Q. Subordinate Jussive (Affirmative): ACAA.1

<u>ACAA.1a</u> : Kik.		Emb. $\acute{S}+V+\acute{a}$	FA.09c
Kam. $\acute{S}+V+\acute{a}$	EA.05c	Mwi. $\acute{S}+V+\acute{a}$	GA.07c

Formal identity is clear. The functions, however, are diverse. The Kamba is used only after the verb -túm- 'cause', of the action caused. The Embu may also be so used (as an alternative to FA.09b, in AABA.1b), being found after -túm- 'cause' with the same meaning. It is also, however, found in the type of construction described in Appendix III. The Mwimbi shows the widest range of usage. It occurs as an alternative to GA.07b (AABA.1b) in contexts expressing desire, result, but especially purpose. None of these may be used to express a command. Though the functions overlap to a point where functional identity could be recognized, and the forms correspond closely, it is still somewhat doubtful whether structural identity should be recognized. The degree of functional

similarity is not much greater than was present in the cases of AAAA.6j, AAAA.6k, and AAAA.6l, which were separated. However, in this case the Kamba and Embu at least may reasonably be called functionally identical, the Mwimbi, while more widely used, is at least highly similar in general function/meaning, and it is probably right to recognize structural identity.

<u>ACAA.1b</u> : Kik.		Emb. $\acute{S}+k\grave{a}+V+\grave{a}$	FA.09e
Kam.		Mwi. $\acute{S}+k\acute{a}+V+\acute{a}$	GA.07e

These are clearly identical in form. Each resembles the equivalent in ACAA.1a in function, differing in being used where a distance in time or space exists between the point of reference indicated by the main verb and the action in question. If the constructions of ACAA.1a were functionally and structurally identical, these are as well.

<u>ACAA.1c</u> : Kik.		Emb. $\acute{S}+k\grave{a}:+V+\grave{a}$	FA.09f
Kam.		Mwi.	

This is similar in usage to FA.09c and FA.09e (in ACAA.1a and ACAA.1b) It differs in being used specifically of actions to be performed a day or more after the time of reference. It must be considered to constitute an endosyntactic unity peculiar to Embu.

R. Subordinate Jussive (Negative): ACAA.2

<u>ACAA.2a</u> : Kik.		Emb.	
Kam. $\acute{S}+t\grave{a}+V+'\acute{a}$		EA.06b	Mwi.

This is used, like EA.05c, in ACAA.1a, only after -t^hm- 'cause', to indicate the action caused. It constitutes an endosyntactic unity peculiar to Kamba.

S. Subordinate Relative and Copular : ACBA, ACBB, ACCA, and ACCB

These divisions of the verbal systems are not separately discussed. All unities are formally and functionally connected with unities in the Independent Non-jussive system. For statements on form, see the appropriate sections of the construction inventories. For information on which unities have relative or copular equivalents, see AAAA and AAAB.

T. Subordinate Absolute Indicative : -í:te (Affirmative): ACDA.1

<u>ACDA.1a</u> : Kik. $\acute{S}+V+\acute{i}:t\acute{e}$	DA.13b Emb. $\acute{S}+V+\acute{i}:t\grave{e}$	FA.12b
Kam. $\acute{S}+V+\acute{i}:t\grave{e}$	EA.08b Mwi. $\acute{S}+V+\acute{i}:t\grave{e}$	GA.10b

Formal identity clearly exists. They are identical in function, being used of actions initiated prior to the time of the independent verb. They are rarely used in conditional expressions. Structural identity exists. Note the formal and functional similarity to AAAA.3f.

U. Subordinate Absolute Indicative : -í:te (Negative): ACDA.2

<u>ACDA.2a</u> : Kik. $\acute{S}+t\acute{a}+V+\acute{i}:t\grave{e}$	DA.14b Emb. $\acute{S}+t\acute{a}+V+\acute{i}:t\acute{e}$	FA.13b
Kam. $\acute{S}+t\grave{a}+V+\acute{i}:t\grave{e}$	EA.09b Mwi. $S+t\acute{i}+V+\acute{i}:t\grave{e}$	GA.11a

Despite the predictable difference of the Mwimbi negative prefix, these are formally identical. In function too they are identical, being used of actions initiated prior to the time of the main verb. Structural identity may be recognized. Note the similarity to AAAA.4f.

V. Subordinate Absolute Indicative : -a (Affirmative): ACDA.3

<u>ACDA.3a</u> : Kik. $\acute{S}+\acute{a}+V+\hat{a}$	DA.13a Emb. $\acute{S}+\acute{a}+V+\hat{a}$	FA.12a
Kam. $S+\acute{a}+V+\acute{a}$	EA.08a Mwi. $S+\hat{a}+V+\hat{a}$	GA.10a

Formal identity clearly exists. All are used of actions completed immediately before the time of the main verb. Each is commonly used in

conditional environments. Functional and structural identity may be considered to exist. Note the formal and functional similarity to AAAA.5e.

ACDA.3b: Kik.

Kam.

Emb.

Mwi. S+râ:+V+á

GA.10c

This construction is used of actions performed at some indefinite time in the past relative to the time of the main verb. It constitutes an endosyntactic unity peculiar to Mwimbi. Note the similarity to AAAA.5b.

ACDA.3c: Kik.

Kam. S+nâ:+V+'á

Emb.

EA.08c Mwi.

This is functionally identical with ACDA.3b. Its form prevents identification with that unity. It is therefore considered to constitute an endosyntactic unity peculiar to Kamba. Note the formal and functional similarity to AAAA.5c.

ACDA.3d: Kik.

Kam.

Emb.

Mwi. S+kũ+V+á

GA.10d

This seems to be used of actions performed prior to the time of the main verb. As in the case of the formally and functionally similar constructions of AAAA.5d, the exact function is somewhat uncertain. This constitutes an endosyntactic unity peculiar to Mwimbi.

ACDA.3e: Kik. S+kí+V+á

Kam. S+kí+V+'á

DA.13c Emb. S+kí+'V+'á

FA.12c

EA.08e Mwi. S+kí+V+'á

GA.10f

These are identical in form. In function, all are used of actions performed at the same time as that of the main verb. They are (except for the Kamba) much used in conditional environments. Each is also used after verbs involving perception or discovery to indicate an action (on

the part of a person other than the subject of the main verb) perceived. Functional and structural identity may be considered to exist. Note the formal similarity to ABAA.1a, as well as the functional difference.

<u>ACDA.3f</u> : Kik.		Emb.
Kam. Š+í+V+'á	EA.08d	Mwi.

In function this is identical with EA.08e (in ACDA.3e). Though differences in form exist, the tonal patterns are identical. This form is in fact that native to my informant's speech. As it cannot be identified with ACDA.3e, it must constitute an endosyntactic unity peculiar to Kamba. Note the formal, but not functional, similarity to ABAA.1e.

<u>ACDA.3g</u> : Kik. Š+râ:+V+'á	DA.13d	Emb.
Kam.		Mwi.

This is formally identical with ACDA.3b, but differs in function. This is used of actions being performed at the time of the main verb. It constitutes an endosyntactic unity peculiar to Kikuyu. Note the formal and functional resemblance to AAAA.5f.

<u>ACDA.3h</u> : Kik. Š+kũ+V+'á	DA.13e	Emb. Š+kũ+V+'á	FA.12d
Kam.		Mwi. Š+kũ+V+'á	GA.10e

These are identical in form. In function, each is used of actions performed at the same time as that of the main verb. Structural identity may be recognized. Note that these are similar in form and function to the constructions of AAAA.5g. Though formally identical with ACDA.3d, the functional difference prevents identification.

<u>ACDA.3i</u> : Kik.	Emb. $\acute{S}+k\grave{a}+V+\grave{a}$	FA.12e
Kam. $\acute{S}+k\grave{a}+V+\grave{a}$	EA.08f Mwi. $\acute{S}+k\grave{a}+V+\grave{a}$	GA.10g

These are clearly identical in form. Their functions, however, are somewhat difficult to determine. Each is used almost exclusively in conditional clauses. The Mwimbi seems to refer to actions performed slightly after the time of the main verb; the Kamba and Embu appear to be used of actions at the same time as that of the main verb. In no case can the temporal relationship to the main verb be considered certain. The constructions, however, seem to qualify as structurally, if perhaps not functionally, identical. Note the formal, and perhaps functional, similarity to ABAA.1d.

<u>ACDA.3j</u> : Kik.	Emb. $\grave{S}+k\acute{i}+k\grave{a}:+V+\acute{a}$	FA.12f
Kam.	Mwi. $S+k\acute{i}+k\hat{a}:+V+'a$	GA.10h

These are obviously formally identical. In function they are also identical. That function, however, is very difficult to specify. Both are extremely rare. They seem to be used of actions at approximately the same time as that of the main verb, or immediately before. For details, see the construction inventories. Structural identity may be assumed to exist.

W. Subordinate Absolute Indicative : -a (Negative): ACDA.4

<u>ACDA.4a</u> : Kik. $\acute{S}+t\acute{a}+n\grave{a}+V+\grave{a}$	DA.14a Emb. $\acute{S}+t\acute{a}+n\grave{a}+V+\grave{a}$	FA.13a
Kam. $\acute{S}+t\acute{a}+n\grave{a}+V+\grave{a}$	EA.09a Mwi.	

These are clearly identical in form. Each is used of actions not completed shortly before the point of reference of the main verb. Functional and structural identity exist. Note the similarity to AAAA.6f.

<u>ACDA.4b</u> : Kik.	Emb.	
Kam.		Mwi. S+tí+kũ+V+à GA.11b

This seems to refer to actions performed before the time of the main verb, though its exact function is somewhat difficult to specify. It constitutes an endosyntactic unity peculiar to Mwimbi. Its formal and functional resemblance to AAAA.6d should be noted.

<u>ACDA.4c</u> : Kik.	Emb. S+tá:+kũ+V+à FA.13c
Kam.	

Despite predictable differences, these are identical in form. They are also identical in function, referring to actions performed at the same time as that of the main verb or shortly afterwards. Structural identity may be considered to exist. Note the similarity to AAAA.6i. Though these are formally identical with ACDA.4b, the functional differences prevent recognition of structural identity.

X. Subordinate Absolute Indicative : -e (Negative): ACDA.5

<u>ACDA.5a</u> : Kik.	Emb. S+tà+V+é FA.13d
Kam.	

This is used in the protases of conditional sentences, where the action of the independent verb is a consequence of the possible non-performance of the action in question. It constitutes an endosyntactic unity peculiar to Embu. Note the formal similarity to ABAA.2a.

Y. Subordinate Absolute Conditional : ACDB

This subdivision is not separately treated here. All unities are formally and functionally parallel to unities included in AAAB. For information on these unities, see AAAB.

Z. Marginal : ADAA.1

<u>ADAA.1a</u> : Kik. S+ngó+V+à	DA.15a	Emb.
Kam.		Mwi.

For details of form and function, see Appendix I. This rare construction has a function/meaning difficult to define. It constitutes an endosyntactic unity peculiar to Kikuyu. A relative equivalent exists.

<u>ADAA.1b</u> : Kik.	Emb. S+V+à	FA.114a
Kam.	Mwi.	

This is used exclusively after the negative particle tí, and is in appearance a normal subordinate copular construction. Its limitation to use with the negative, and the lack of parallel independent and relative forms, have placed it among the marginal constructions. For details of form and function see Appendix III. It constitutes an endosyntactic unity peculiar to Embu.

<u>ADAA.1c</u> : Kik.	Emb. S+'V+á	FA.114b
Kam.	Mwi.	

Despite formal identity with ADAA.1b, this cannot, as shown in Appendix III, be identified with the construction included there. The status of this construction is most uncertain. It is used only after ní, but lacks the characteristics of copular constructions. Formally, it behaves more like an independent jussive, but the nearest parallel jussive is subordinate and quite distinct in function. Since it is never found without ní, it can hardly be classed as an independent non-jussive. It constitutes an endosyntactic unity peculiar to Embu.

ADAA.1d, etc.: The remaining constructions are in all cases members of

series of constructions formally identical, except for an additional prefixed element, with certain of those presented above. No two such sets show the same prefixed element, and the number of unities is identical with the number of constructions. For details, see the Kikuyu and Mwimbi construction inventories.

Notes to Chapter II:

1. Although the negative prefix of Mwimbi is formally and functionally distinct from the prefixes used in Southern Thagicũ, patterns including it will be recognized as formally identical with otherwise identical patterns from the other dialects. In the Southern dialects, the negative prefixes can be shown to constitute a "class constituent", as defined on page 35. Therefore, it is not the form of the negative prefix which is important, but rather the presence of some member of the class of negative prefixes.
2. As stated on page 69, the existence or otherwise of copular equivalents of negative constructions will not be noted.

CHAPTER III: ENDOSYNTACTIC UNITIES : Habitual Stems

Section 1 : Description

A. Method of Analysis:

In presenting the inventory of endosyntactic unities involving the set of habitual/continuative verb stems, the basis of the description is the same as that used for the inventory of unities with "regular" stems. It is, in other words, not strictly deductive, for the reasons given in Chapter II. Instead, since the nature of the data permits the determination of structurally identical items through simple inspection of the data, in most cases, the more complicated procedure of listing formally and then functionally identical items and basing conclusions thereon has not been followed. Here also it is true that the final inventory would not differ significantly from that actually given. But the presentation would be unnecessarily lengthened, and complications would arise from single constructions satisfying the requirements for structural identity with two contrasting constructions.

B. Method of Presentation:

Each endosyntactic unity is listed separately. The constructions which constitute it are listed, with the reference numbers from the construction inventories to facilitate location of more detailed information when desired. Only one variant of each construction is given, that being the first listed in the appendices. From these forms it will usually be possible to establish the existence of formal identity. Where there might be doubt, justification for recognition of identity will be given.

The function/meaning of each construction will be given briefly. Where differences occur, justification for the analysis, whether as functionally identical or distinct, will be given. If formal and functional identity are established, it may be considered that the constructions are also structurally identical. Where functional identity cannot be recognized, justification for recognition of structural identity as implied by listing the items as members of the same endosyntactic unity will be given. Where formal identity, or functional, exists, or might be thought to exist, between the constructions included in two separate unities, the fact will be indicated and the reasons for the analysis given.

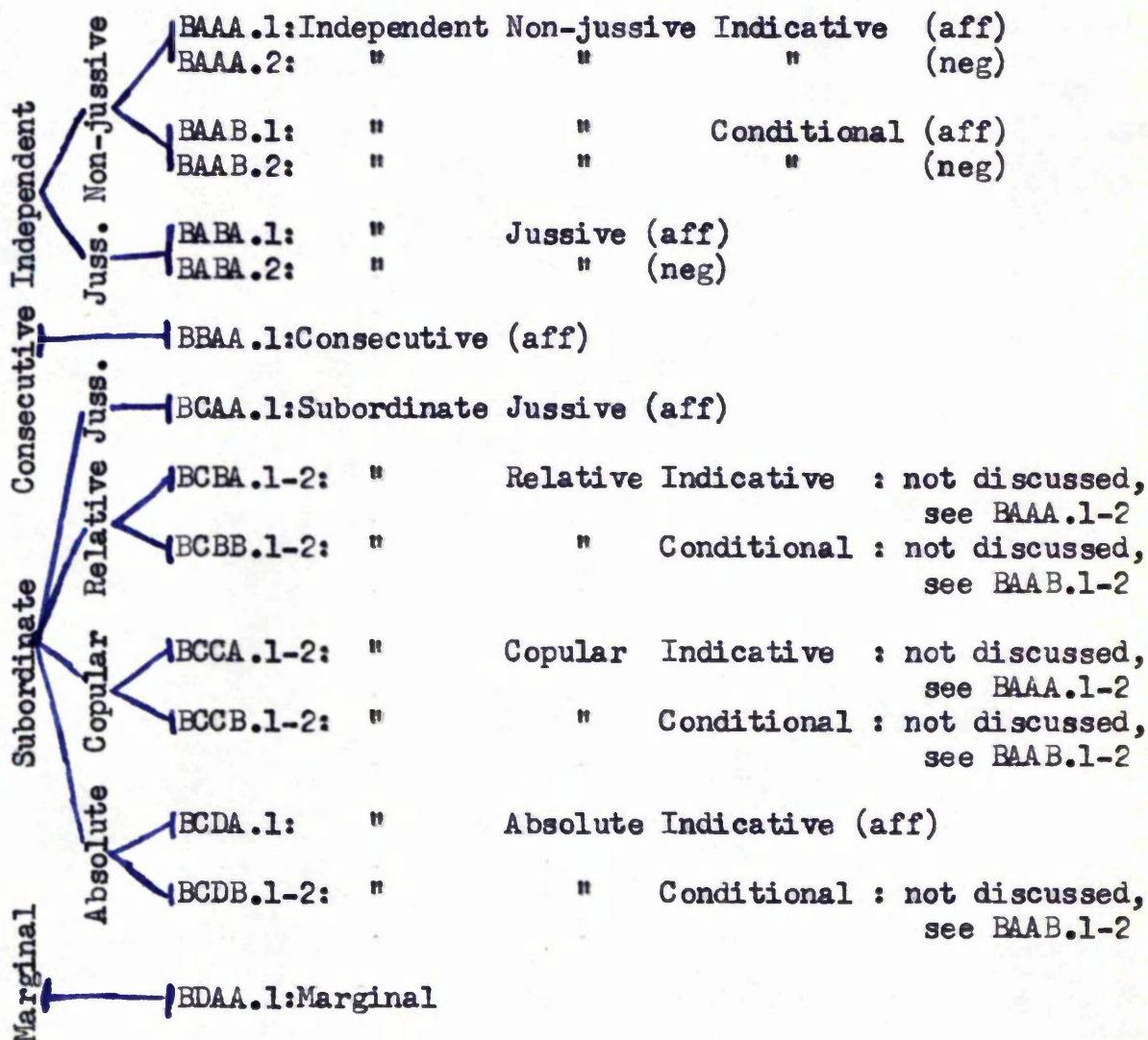
The grouping of unities here is similar to that followed in Chapter II, although subdivision by final suffix is impossible here. Again, however, the subdivision followed in the construction inventories is ignored, where it does not agree with the basic pattern described in the introduction. The main reason for the divisions made in the appendices was to prevent, as far as possible, identification of two constructions as one in single dialects. At this point it is desired to correct all non-structural identifications or separations of constructions made there, but it is easier to justify identification of two falsely separated "constructions" as in fact one than to justify the separation of two constructions originally assumed to be one.

The relative, copular, and conditional absolute have not been listed and described separately here, for the reason given for the regular stems. Each has an equivalent independent construction. For reasons of economy, it seems better to indicate their existence in the description of such

independent constructions. Though they are not described separately, it must be remembered that they are not structurally identical with the corresponding forms under which they are listed.

C. System of Labelling :

The labels used are similar to those in Chapter II. Individual unities are further distinguished by an added letter, the order being determined, as far as possible, by temporal reference, otherwise arbitrary. The initial letter of each label is here B, to distinguish these from the unities found with regular stems. The labels follow:



Section 2 : Inventory of Endosyntactic Unities

A. Independent Non-jussive Indicative (Affirmative): BAAA.1

<u>BAAA.la</u> : Kik. S+a+V-ág+a'	DB.01a	Emb. S+a+V-ág+a'	FB.01a
Kam. S+a+V-a'a'	EB.01a	Mwi. S+a+V-'ág+a'	GB.01a

Formal identity (allowing for the regular absence of g in Kamba) clearly exists. All refer to continuous or habitual action at a point in the past earlier than the day before that of reference. The Kamba is limited to narrative contexts, but may be considered functionally identical. Structural identity exists. All have relative and copular equivalents.

<u>BAAA.lb</u> : Kik. S+râ:+V-ág+a'	DB.01b	Emb. S+râ:+V-ág+a'	FB.01b
Kam.		Mwi. S+râ:+V-àg+a`	GB.01b

These are clearly formally identical. Each is used mainly of continuous action, reference being to the day before that of reference. The Mwimbi may also be used of at least a few days before. Functional and structural identity exist. Each has relative and copular equivalents.

<u>BAAA.lc</u> : Kik.		Emb.
Kam. S+nâ:+V-'á+a'	EB.01b	Mwi.

This might be considered functionally identical with BAAA.lb. It refers to continued action on the day before that of reference, or continuous or habitual action up to a few weeks or months in the past, in conversational contexts. Its form, however, makes such identification impossible. It constitutes an endosyntactic unity peculiar to Kamba. Relative and copular forms exist.

<u>BAAA.ld</u> : Kik. $\acute{S}+k\grave{u}+V-\acute{a}g+\acute{a}$	DB.Olc	Emb. $S+k\grave{u}+V-\grave{a}g+\grave{a}$	FB.Olc
Kam. $S+k\grave{u}+V-\grave{a}+\grave{a}$	EB.Olc	Mwi. $S+k\grave{u}+V-\grave{a}g+\grave{a}$	GB.Olc

These are formally identical. All are used of continuous action in the past on the day of reference. Structural identity may be assumed to exist. Relative and copular forms of each exist. The Kamba and Embu independents are only rarely used, the copular being preferred; the Mwimbi copular is rare.

<u>BAAA.le</u> : Kik.		Emb.	
Kam. $S+\acute{i}:+V-\acute{a}+\acute{a}$	EB.Old	Mwi. $\grave{S}+r\acute{i}:+V-\acute{a}g+\hat{a}$	GB.Old

These are formally identical, the absence of r and g in Kamba being regular. In function, both are used in conversational environments, as in questions and answers thereto, as alternatives to the equivalent constructions in BAAA.ld. Their temporal reference is therefore to continuous actions in the past on the day of reference. The Mwimbi, in addition, seems to be used when emphasis is upon some constituent of the sentence other than the verb. Functional and structural identity exist. Neither has a copular counterpart. The Mwimbi may have a relative, but the Kamba does not.

<u>BAAA.lf</u> : Kik. $S+V-\grave{a}g+\grave{a}$	DB.Old	Emb. $S+V-\grave{a}g+\grave{a}$	FB.Old
Kam. $S+V-\grave{a}+\grave{a}$	EB.Olc	Mwi. $S+V-\acute{a}g+\grave{a}$	GB.Olc

These are identical in form. In function they are also identical, being used of habits in existence at the point of reference. Functional and structural identity exist. Each has relative and copular equivalents.

<u>BAAA.lg</u> : Kik. $\grave{S}+r\acute{i}:+V-\acute{a}g+\acute{a}$	DB.Olc	Emb.
Kam. $\acute{S}+\acute{i}:+V-\grave{a}+\grave{a}$	EB.Olc	Mwi.

These are formally identical. The Kikuyu is used of habits beginning

at or shortly after the point of reference. The Kamba is used of future habitual and continuous action, but its exact temporal range is uncertain. Probably these may be considered functionally identical. They are close enough for structural identity to be recognized in any case. Both have relative and copular equivalents. The Kamba copular is more frequent than the independent. Note the formal similarity but direct formal and functional contrast with BAAA.le in Kamba.

<u>BAAA.lh</u> : Kik. $\acute{S}+k\grave{a}:+V-\grave{a}g+\grave{a}$	DB.Olf	Emb. $\acute{S}+k\grave{a}:+V-\grave{a}g+\grave{a}$	FB.Ole
Kam. $S+k\hat{a}:+V-\acute{a}+\acute{a}$	EB.Olg	Mwi. $S+k\hat{a}:+V-\grave{a}g+\grave{a}$	GB.Olf

The formal identity of these is clear. They are identical in function, used of habitual or continued action beginning in the future. They are structurally identical. All have relative equivalents. The Kamba and Mwimbi lack copulars, the Kikuyu and Embu have them.

<u>BAAA.li</u> : Kik.	Emb. $\acute{S}+k\grave{a}:+V-\grave{a}g+\grave{a}$	FB.Olf
Kam.	Mwi.	

This refers to habitual or continuous action an indefinite length of time in the future, contrasting with FB.Ole (BAAA.lh), which refers to action at a specified point or period. Despite formal identity with BAAA.lh, and near functional identity, this cannot be included there because of the apparent contrast. If this is in fact a separate construction, it constitutes an endosyntactic unity peculiar to Embu. A relative exists; any copular which may exist, however, cannot be distinguished from that of FB.Ole. The possibility that this is but a conditioned variant of BAAA.lh cannot be overlooked.

B. Independent Non-jussive Indicative (Negative): BAAA.2

<u>BAAA.2a:</u> Kik. $\acute{S}+t\acute{i}+\grave{a}+V-\acute{a}g+\acute{a}$	DB.02a	Emb. $\grave{S}+t\acute{i}+\acute{a}+V-\acute{a}g+\acute{a}$	FB.02a
Kam. $\grave{S}+t\acute{i}+\grave{a}+V-\acute{a}+\acute{a}$	EB.02a	Mwi. $S+t\hat{a}:+V-\grave{a}g+\grave{a}$	GB.02a

These are formally identical, differences being predictable. In function, the Kikuyu and Embu are completely identical, used of actions, habitual or continuous, earlier in the past than the day before that of reference. The Kamba has a similar range, but is used only in narrative contexts. The Mwimbi is used of habitual and continuous action in the past earlier than the day of reference. Functional, and therefore structural, identity may be recognized. All have relative equivalents.

<u>BAAA.2b:</u> Kik. $\acute{S}+t\acute{i}+r\hat{a}:+V-\acute{a}g+\acute{a}$	DB.02b	Emb. $\grave{S}+t\acute{i}+r\hat{a}:+V-\grave{a}g+\grave{a}$	FB.02b
Kam.		Mwi.	

These are identical in function as well as in form. Each is used of continuous action on the day before that of reference. Structural identity exists. Both have relative counterparts.

<u>BAAA.2c:</u> Kik.		Emb.	
Kam. $\acute{S}+t\acute{i}+n\hat{a}:+V-\grave{a}+\acute{a}$	EB.02b	Mwi.	

This is used of continuous actions on the day before that of reference. In conversational, rather than narrative, environments it may also be used of habitual or continuous actions at an earlier point in time. It is thus functionally identical with BAAA.2b, but formally distinct. It constitutes an endosyntactic unity peculiar to Kamba. A relative exists.

<u>BAAA.2d:</u> Kik. $\acute{S}+t\acute{i}+k\grave{u}+V-\acute{a}g+\acute{a}$	DB.02c	Emb. $\grave{S}+t\acute{i}:+k\grave{u}+V-\grave{a}g+\grave{a}$	FB.02c
Kam. $\acute{S}+t\acute{i}+k\grave{u}+V-\grave{a}+\acute{a}$	EB.02c	Mwi. $S+t\acute{i}+k\grave{u}+V-\grave{a}g+\grave{a}$	GB.02b

These are clearly identical in form. In function, all are used of

continuous actions in the past on the day of reference. Functional, and therefore structural, identity exists. There are relative forms.

<u>BAAA.2e</u> : Kik. $\acute{S}+t\acute{i}+V-\grave{a}g+\grave{a}$	DB.02d	Emb. $\grave{S}+t\acute{i}+'V-\acute{a}g+\hat{a}$	FB.02 d
Kam. $\grave{S}+t\acute{i}+V-\acute{a}+\grave{a}$	EB.02d	Mwi. $S+t\acute{i}+'V-\grave{a}g+\grave{a}$	GB.02c

These are clearly identical in form. They are all used identically of habits in existence at the point of reference. Another function is given for the Mwimbi, but this is discussed in BAAA.2f. Structural identity exists. Each has an equivalent relative.

<u>BAAA.2f</u> : Kik.	Emb.		
Kam.	Mwi. $S+t\acute{i}+'V-\grave{a}g+\grave{a}$		GB.02c

This is included also in BAAA.2e. Besides the function given there, it is also used of habitual or continuous action in the future. While some doubt as to the proper analysis remains, it seems best to treat this as in fact two constructions. This is therefore an endosyntactic unity peculiar to Mwimbi; a relative equivalent exists.

<u>BAAA.2g</u> : Kik. $\acute{S}+t\acute{i}+r\acute{i}:+V-\acute{a}g+\hat{a}$	DB.02e	Emb.	
Kam. $\grave{S}+t\acute{i}+i:+V-\grave{a}+\acute{a}$	EB.02e	Mwi.	

These may be called formally identical. Both are used of habitual or continuous action in the future, in the case of the Kikuyu commencing at the present. They are functionally and structurally identical. Each has a relative equivalent.

<u>BAAA.2h</u> : Kik. $\acute{S}+t\acute{i}+k\grave{a}:+V-\acute{a}g+\hat{a}$	DB.02f	Emb. $\grave{S}+t\acute{i}+k\grave{a}:+V-\acute{a}g+\hat{a}$	FB.02e
Kam. $\grave{S}+t\acute{i}+k\hat{a}:+V-\grave{a}+\acute{a}$	EB.02f	Mwi.	

These are clearly identical in form. All are functionally identical, used of continuous or habitual action commencing in the future. Structural

identity may therefore be recognized. Relative equivalents exist.

C. Independent Non-jussive Conditional (Affirmative): BAAB.1

<u>BAAB.1a:</u> Kik. S+ngí+a+V-ág+a'	DB.03a	Emb. S+ngí+a'+V-ág+a'	FB.03a
Kam.		Mwi.	

These are clearly identical in form. Each is used of possible habitual or continuous actions in the past earlier than the day before that of reference. Functional and structural identity exist. Each has relative, copular, and absolute counterparts.

<u>BAAB.1b:</u> Kik. S+ngí+râ:+V-ág+a'	DB.03b	Emb. S+ngí+râ:+V-ág+a'	FB.03b
Kam.		Mwi.	

Formal identity exists. These are also identical in function, referring to continuous action on the day before that of reference. It may be considered that structural identity exists. Both have equivalent relatives, copulars, and absolutes.

<u>BAAB.1c:</u> Kik. S+ngí+V-ág+a'	DB.03c	Emb. S+ngí+V-ág+a'	FB.03c
Kam.		Mwi.	

These are clearly identical in form. Each is used of the existence at the time of reference of a possibility of habitual or continued action. Functional and structural identity exist. Each has equivalent relative, copular, and absolute forms.

<u>BAAB.1d:</u> Kik. S+ngí+kâ:+V-ág+a'	DB.03d	Emb. S+ngí+kâ:+V-ág+a'	FB.03d
Kam.		Mwi.	

These are identical in form. Both are used of hypothetical future continuous or habitual action. Functional and structural identity exist. There are relative, copular, and absolute equivalents.

D. Independent Non-jussive Conditional (Negative): BAAB.2

<u>BAAB.2a:</u> Kik. $\acute{S}+t\acute{i}+ng\acute{i}+a+V-\acute{a}g+a$	DB.04a		Emb. $\grave{S}+t\grave{i}+ng\grave{i}+a+V-\acute{a}g+a$	FB.04a
Kam.			Mwi.	

These are clearly identical in form. Both are used of habitual or continuous action earlier than the day before that of reference. They are functionally and structurally identical. Relatives and absolutes exist.

<u>BAAB.2b:</u> Kik. $\acute{S}+t\acute{i}+ng\acute{i}+r\acute{a}:+V-\acute{a}g+a$	DB.04b		Emb. $\grave{S}+t\grave{i}+ng\grave{i}+r\acute{a}:+V-\acute{a}g+a$	FB.04b
Kam.			Mwi.	

These are clearly formally identical. They are used of continuous action on the day before that of reference. Functional and structural identity may be recognized. Each has relative and absolute equivalents.

<u>BAAB.2c:</u> Kik. $\acute{S}+t\acute{i}+ng\acute{i}+V-\acute{a}g+a$	DB.04c		Emb. $\grave{S}+t\grave{i}+ng\grave{i}+V-\acute{a}g+a$	FB.04c
Kam.			Mwi.	

These are identical in form. Each is used of presently possible habitual or continuous actions. Functional and structural identity may be said to exist. Relative and absolute forms are found.

<u>BAAB.2d:</u> Kik. $\acute{S}+t\acute{i}+ng\acute{i}+k\acute{a}:+V-\acute{a}g+a$	DB.04d		Emb. $\grave{S}+t\grave{i}+ng\grave{i}+k\acute{a}:+V-\acute{a}g+a$	FB.04d
Kam.			Mwi.	

It is clear that formal identity exists. In function the two are both used of habitual or continuous action in the future. Since both formal and functional identity exist, structural identity may be recognized. Relative and absolute constructions exist parallel to these.

E. Independent Jussive (Affirmative): BABA.1

<u>BABA.1a:</u> Kik. $V-\acute{a}g+a$	DB.05a		Emb. $V-\acute{a}g+a$	FB.05a
Kam. $V-'a+a$	EB.03a		Mwi. $V-\acute{a}g+a$	GB.03a

These are identical in form, including the variants found with ob-

jective prefixes other than that of Class A. All are imperative in function. Functional and structural identity exist.

<u>BABA.1b</u> : Kik. $\acute{S}+V-\grave{a}g+è$	DB.05b Emb. $\acute{S}+V-\acute{a}g+è$	FB.05b
Kam. $\acute{S}+V-\grave{a}+è$	EB.03b Mwi. $S+V-\acute{a}g+è$	GB.03b

Formal identity clearly exists. Each is used in indirect commands, expressions of desire, purpose, and so forth. Differences in usage exist, but functional and hence structural identity may still be recognized.

All may be used with ní, but no copular form exists.

<u>BABA.1c</u> : Kik. $\acute{S}+k\grave{a}+V-\grave{a}g+è$	DB.05c Emb. $\acute{S}+k\grave{a}+V-\acute{a}g+é$	FB.05d
Kam. $\acute{S}+k\grave{a}+V-\acute{a}+é$	EB.03c Mwi. $S+k\grave{a}+V-\acute{a}g+é$	GB.03d

The formal identity of these is clear. In function all are identical, differing from BABA.1b only in indicating a distance in space or time between the command, proposal, and so forth, and the performance of the proposed action. Structural identity exists. The proclitic ní is used for emphasis, but no copular form is found.

<u>BABA.1d</u> : Kik. $\acute{S}+r\acute{o}:+V-\grave{a}g+à$	DB.05d Emb. $S+r\acute{o}:+V-\acute{a}g+á$	FB.05g
Kam.	Mwi. $S+r\acute{o}:+V-\acute{a}g+á$	GB.03f

These are obviously identical in form. All are used (particularly in ritual contexts of curses and blessings) in strong wishes. Functional and structural identity exist. In dialects of Kamba other than that of my informant a structurally identical construction is found.

F. Independent Jussive (Negative): BABA.2

<u>BABA.2a</u> : Kik. $\acute{S}+t\acute{i}+k\grave{a}:+V-\acute{a}g+é$	DB.06a Emb. $\acute{S}+t\acute{i}+k\grave{a}:+V-\acute{a}g+é$	FB.06a
Kam. $\acute{S}+t\acute{i}+k\grave{a}:+V-\acute{a}+é$	EB.04a Mwi. $S+t\acute{i}+k\grave{a}:+V-\acute{a}g+é$	GB.04a

These are formally identical. Each serves as negative equivalent to

any jussive affirmative with habitual/continuative stem. Functional and structural identity exist.

G. Consecutive (Affirmative): BBAA.1

<u>BBAA.1a</u> : Kik. $\acute{S}+k\grave{a}+V-\grave{a}g+\acute{a}$	DB.07a	Emb. $\acute{S}+k\grave{a}+V-\grave{a}g+\acute{a}$	FB.07a
Kam. $\acute{S}+k\grave{a}+V-\grave{a}+\acute{a}$	EB.05a	Mwi. $\acute{S}+k\grave{a}+V-\grave{a}g+\acute{a}$	GB.05a

These are clearly identical in form. Each is used of habitual or continuous actions performed at the same time as that of the main verb. All are most commonly used after habitual/continuative verbs, of any time reference. In a series of consecutives these normally occur only once, following members of the series usually being members of ABAA.1d (the equivalent with regular stems). Functional and structural identity exist.

<u>BBAA.1b</u> : Kik. $\acute{S}+V-\grave{a}g+\acute{e}$	DB.07b	Emb.
Kam.		Mwi.

Though formally identical with DB.05b (in BABA.1b), this may not be identified therewith. This is used of habitual or continuous actions after any verb with future reference. While equivalent forms probably occur in Embu and Mwimbi, they are not attested, and this must be considered an endosyntactic unity peculiar to Kikuyu.

H. Subordinate Jussive (Affirmative): BCAA.1

<u>BCAA.1a</u> : Kik.	}	Emb. $\acute{S}+'V-\acute{a}g+\acute{a}$	FB.05c
Kam.		Mwi. $\acute{S}+V-\acute{a}g+\acute{a}$	GB.03c

Formal identity clearly exists. In function the Embu is used after -túm- 'cause' of the resulting action, and also in certain constructions described in Appendix III. The Mwimbi is used as an alternative to

GB.03b (in BABA.lb) in many environments involving desire, purpose, and result. While there may well be some doubt as to functional identity, it is probable that one may in any case recognize structural identity. Compare the discussion of the parallel ACAA.la.

<u>BCAA.lb</u> : Kik.	Emb. S+ka+V-àgta	FB.05e
Kam.	Mwi. S+ka+V-àgta	GB.03e

Formal identity is obvious. If the constructions of BCAA.la are identical in function, these may also be considered so. They differ from those constructions only in indicating a distance in space or time between the main verb and the action in question. Structural identity exists.

<u>BCAA.lc</u> : Kik.	Emb. S+ka:+V-àgta	FB.05f
Kam.	Mwi.	

This is used in the contexts specified in the discussion of FA.09f in Appendix III, of continuous or habitual action. It indicates that the action is to be performed a day or more after the point of reference. It constitutes an endosyntactic unity peculiar to Embu.

I. Subordinate Relative and Copular : BCBA, BCBB, BCCA, and BCCB

These divisions of the verbal systems are not separately discussed. All unities are formally and functionally connected with unities in the Independent Non-jussive system. For statements on form, see the appropriate sections of the construction inventories. For information on which of the unities have relative or copular counterparts, see BAAA and BAAB.

J. Subordinate Absolute Indicative (Affirmative): BCDA.1

<u>BCDA.1a</u> : Kik. S+kí+V-ág+á	DB.08a	Emb. S+kí+V-àg+à	FB.08a
Kam.		Mwi. S+kí+V-'ág+à	GB.06a

These are clearly identical in form. Each is used of continuous or habitual actions performed at the same time as that of the main verb. Usually the subject is the same as that of the main verb. Functional and structural identity exist.

<u>BCDA.1b</u> : Kik. S+V-àg+á	DB.08b	Emb.	
Kam. S+V-à+á	EB.06a	Mwi. S+V-àg+à	GB.06b

These are identical in form. They are used of continuous or habitual actions performed at the same time as specified by the main verb. The differences between these and the constructions of BCDA.1a cannot at present be specified. Functional and structural identity exist. Note the similarity to BAAA.1f.

K. Subordinate Absolute Conditional : BCDB

This subdivision is not separately treated here. All unities are formally and functionally parallel to unities included in BAAB. For information on these unities, see BAAB.

L. Marginal : BDAA.1

<u>BDAA.1a</u> : Kik.	Emb. S+V-àg+à	FB.09a
Kam.	Mwi.	

Except for its reference to habitual or continuous actions, this is identical in function with FA.14a (in ADAA.1b). For a statement of its function and status in the system see ADAA.1b. It constitutes an endo-syntactic unity peculiar to Embu.

BDAA.lb: Kik.

Emb. S+V-á+á

FB.09b

Kam.

Mwi.

This, though identical in form (except for tone) with BDAA.la, is not identical with the construction included there. For a discussion of its function and status, see ADAA.lc. This differs from that unity in nothing but its habitual/continuative function. It is an endosyntactic unity peculiar to Embu.

BDAA.lc, etc.: The remaining constructions are in all cases members of series of constructions formally identical, except for an additional prefixed element, with certain of those presented above. No two such sets show the same prefixed element, and the number of unities is identical with the number of constructions. For details, see the Kikuyu construction inventory.

CHAPTER IV: MORPHOLOGIC UNITIES

Section 1 : Description

A. Method of Analysis:

In the preceding chapters the inventories of endosyntactic unities have been given. Each of these unities includes a construction or set of constructions. Each construction in turn consists of a fixed combination of constituents, morphemes or classes of morphemes. Since structural identity involves formal and functional identity, and since the form and function of a construction are determined at least in part by the forms and functions of its constituents, it may be assumed that in the majority of cases formal and functional identity will exist between the parallel constituents of structurally identical constructions included in the same unity. In some cases such identity will not exist. However, even where it does not, equivalent constituents of structurally identical constructions will be considered structurally identical.

It would hardly be profitable to discuss morphologic unities (sets of structurally identical morphemes in different dialects) were it not possible to recognize as structurally identical more than merely the morphemes found in structurally identical constructions. In the four dialects it frequently happens that what is (or appears to be) the same morpheme occurs in more than one construction in the same dialect, and thus may be structurally identical with morphemes of other dialects included in constructions in more than one endosyntactic unity.

Isolation of morphologic unities, and determination of which of the units formally identical with a constituent of one construction

are in fact structurally identical therewith, are at times difficult. In the verbal systems here studied to some extent it is possible to do this with a degree of certainty. However, the probability of reaching an accurate and adequate analysis is considerably increased by the extra data included in a comparative discussion.

The criteria used in determining structural identity here, as in the case of the constructions, involve formal and functional identity in most cases. While it is in most cases a simple task to determine a morpheme's form, isolating its function (or functions) is often far from simple in these systems. In some cases there exist constructions differing only in the presence or absence of a given morpheme, and often when this is so the function/meaning of the morpheme can be determined to be the functional difference between the constructions. More frequently, series of constructions exist, differing from one another in only one constituent, and differing functionally only in one item such as temporal reference. In such cases indication of the temporal or other differing functional element may be recognized as the function of each of the differentiating morphemes. In either case parallel sets of constructions, showing the same oppositions in form and function, can at times be found. Where this is the case, the identical elements from different constructions having the same isolable function/meaning may be assumed to belong to the same morpheme. In other cases, however, the only function one can isolate is occurrence in a given construction, and links with formally identical elements, if in the same dialect but found in different constructions, are then impossible to determine, very often.

B. Method of Presentation:

In this chapter an attempt will be made to determine the morphologic unities present in the inventory of endosyntactic unities. No discussion of the morphemes found will be given for the dialects, to correspond with the construction inventories. The main reason for this is the increased difficulty and uncertainty of morphologic analysis within a single dialect. The formal elements are, indeed, listed in Appendices I-IV, and their formal behavior (except tonal) noted. These lists, together with reference to the endosyntactic unities in which the morphemes are involved and to the constructions themselves, should present adequately details of form and function without the necessity of treatment parallel to that of the constructions.

Each morphologic unity will be treated separately. The form found in each dialect having a morpheme belonging to the unity will be stated, without indications of tone, since it is usually difficult, if not impossible, to determine to what extent tone is associated with particular morphemes and to what extent with the construction as a whole. In certain cases, indeed, elements found in different constructions often show completely different tones, despite clear structural identity.

In most cases formal identity will be adequately established by this citation of form. The endosyntactic unities in which morphemes belonging to the unity occur will then be listed. The structural identity of the items in each endosyntactic unity will allow one to recognize interdialectal formal, functional, and structural identity.

It will be necessary to indicate, where possible, the isolable function of the unity or its constituent morphemes. It will also be necessary to justify recognition of structural identity between elements found as constituents of constructions included in more than one endosyntactic unity.

The statements made in this chapter are in some cases far from certain. Often formally identical elements may in fact belong to the same morpheme, although they cannot, by the criteria employed and on the basis of the evidence available, be recognized as structurally identical. This may also be the case where even formal identity is lacking, between dialects. It is also conceivable that many elements linked here are not in fact representatives of the same morpheme. In some cases false divisions may have been made, a single element being treated as two or a composite unit treated as a single element.

C. System of Labelling:

The grouping of morphologic unities is basically the same as that used in classification of elements in the appendices. Its basis is the order of position in constructions. Each positional division receives a label consisting of a C (serving to distinguish this from the series of labels used elsewhere in this study) followed by another letter indicating position in the word. Formally based divisions occurring at the same position are numbered, the ordering being alphabetical. Such numbered series of elements are normally mutually exclusive. In only one case do items included in such a series occur in different

positions. CB.1, one of the negative prefixes, occurs before the subjective prefixes, unlike the other elements included in CB, all of which follow the subjective prefix. Since CB, the set of negative prefixes, is a class constituent, although its individual members have been specified in citing patterns throughout this description, it seemed best not to separate this member of that set, despite its abnormal position.

Formally identical morphologic unities are distinguished in labelling by a lower-case letter. The ordering here is based upon the position of the endosyntactic unities in which the morphologic unities in question occur in the order of endosyntactic unities. In only one case do two identical elements exist which differ within the same dialect in behavior in conjunction with other elements. However, in this case the two are distinguished by relative position, so that no confusion results. Class constituents, other than that of the negative prefixes, will not be discussed here. The subjective and objective prefixes, however, are treated in Appendix V.

The following list of labels (with indications of the form of the elements to which they refer¹), while having little structural relevance, is adequate for use here²:

CA : Subjective Prefixes : Class Constituent : not discussed-
see Appendix V

CB : Negative Prefixes : Class Constituent
 CB.1 : nd-
 CB.2 : -ta-
 CB.3 : -ti-
 CB.4 : -ti-

CC : Post-negative Pre-conditional Order

CC.1 : -rĩ-

CD : Conditional Prefix

CD.1 : -ngĩ-

CE : First Post-conditional Order

CE.1 : -a-

CE.2 : -ai-

CE.3 : -i-

CE.4 : -ka-

CE.5 : -kĩ-

CE.6 : -kũ-

CE.7 : -na:-

CE.8 : -nee-

CE.9 : -ngo-

CE.10: -ra:-

CF : Second Post-conditional Order

CF.1 : -ka:-

CG : Third Post-conditional Order

CG.1 : -na-

CG.2 : -ro:-

CH : Pre-objective Order

CH.1 : -kĩ- (not to be confused with CE.5)

CI : Objective Prefixes : Class Constituent : not discussed-
see Appendix V

CJ : Verb Stems : Class Constituent : not discussed

CK : Final Suffixes

CK.1 : -a

CK.2 : -e

CK.3 : -ĩ:te

CK.4 : -ire

Section 2 : Inventory of Morphologic Unities

A. Subjective Prefixes (Class Constituent): CA

These are not discussed in detail here. A full account will be found in Appendix V. These occur in all endosyntactic unities except AABA.1a and BABA.1a.

B. Negative Prefixes (Class Constituent): CB

<u>CB.1a:</u>	Kik. <u>nd-</u>	Kam. <u>nd-</u>	Emb. <u>nd-</u>	Mwi.			
	AAAA.2a	AAAA.4 ³	AAAA.6a	AAAA.6b	AAAA.6e	AAAA.6f	AAAA.6h
	AAAA.6i	AAAA.6j	AAAA.6k	AAAA.6m	AAAA.6n	AAAB.2	AAAB.4
	AAAB.6	AABA.2	ABAA.2	BAAA.2a	BAAA.2b	BAAA.2c	BAAA.2d
	BAAA.2g	BAAA.2h	BAAB.2	BABA.2			

The formal identity of these is clear. All constructions in the three dialects included in the listed endosyntactic unities involve this prefix. It always immediately precedes the subjective prefix, and is never found except with subjective prefixes of Classes B, 1, 3, 4, or 9. Its function/meaning is indication of negation. All the elements are identical in form, function, and structure.

<u>CB.2a:</u>	Kik. <u>-ta-</u>	Kam. <u>-ta-</u>	Emb. <u>-ta-</u>	Mwi.			
	ACAA.2	(ACBA.2) ⁴	(ACBA.4)	(ACBA.6)	(ACBB.2)	(ACBB.4)	(ACBB.6)
	(ACCA.2)	(ACCA.4)	(ACCA.6)	(ACCB.2)	(ACCB.4)	(ACCB.6)	(ACDA.2)
	ACDA.4a	ACDA.4c	ACDA.5	(BCBA.2)	(BCBB.2)	(BCCA.2)	(BCCB.2)

These are identical in form. This occurs immediately after the subjective prefix in all constructions from the three dialects included in the endosyntactic unities listed. Its function is to indicate negation; it occurs only in subordinate constructions. Apart from differences due to the presence of other elements, these are all formally, functionally, and structurally identical.

CB.3a: Kik. Kam. Emb. Mwi. -ti-

AAAA.2 AAAA.4a AAAA.4b AAAA.4f AAAA.6b AAAA.6c AAAA.6d AAAA.6g
AAAA.6i AAAA.6l AAAA.6n AAAB.2a AAAB.2b AAAB.6d AABA.2 (ACBA.2)
(ACBA.4) (ACBA.6) (ACBB.2) (ACBB.6) (ACCA.2) (ACCA.4) (ACCA.6) (ACCB.2)
(ACCB.6) ACDA.2 ACDA.4b ACDA.4c BAAA.2a BAAA.2d BAAA.2e BAAA.2f
BABA.2 (BCEA.2) (BCCA.2)

In all Mwimbi constructions included in the above set of unities this element occurs. In all cases it immediately precedes any prefix other than the subjective prefix, which it follows. When it precedes -a- or -a:- coalescence to -ta:- occurs; this can be shown to be composite and unconnected with CB.2a. The function of these is indication of negation. They are identical in form, function, and structure.

CB.4a: Kik. -ti- Kam. -ti- Emb. -ti- Mwi.

AAAA.2a AAAA.4 AAAA.6a AAAA.6b AAAA.6e AAAA.6f AAAA.6h
AAAA.6i AAAA.6j AAAA.6k AAAA.6m AAAA.6n AAAB.2 AAAB.4
AAAB.6 AABA.2 ABAA.2 BAAA.2a BAAA.2b BAAA.2c BAAA.2d BAAA.2e
BAAA.2g BAAA.2h BAAAB.2 BABA.2

These are formally identical. The list of unities of which they are constituents is identical with that given for CB.1a. These are found after the subjective prefix, with any subjective prefix other than that of Classes B, 1, 3, 4, and 9. The function in each case is negation. The Kamba is in intervocalic position normally realized as -i- in my informant's dialect. These all are formally and functionally identical and may be recognized as structurally so.

C. Post-negative Pre-conditional Order : CC

CC.1a: Kik. Kam. -i:- Emb. Mwi.

AAAA.3e AAAA.4e (& relative and copular forms)

This is identical in form in both constructions. Both of these

are used of actions initiated before a point in the past on the day of reference, having results still relevant at that point. One is a negative equivalent of the other. Their function is reference to the past of the day of reference. They are functionally and structurally identical.

CC.1b: Kik. Kam. -ĩ:- Emb. Mwi. -rĩ:-

AAAA.5h

Formal identity exists, the lack of r being a regular feature of Kamba. The reference of the constructions is to present or immediate future action, being used as alternates to the constructions of AAAA.5g, primarily in conversational contexts. What part of this is to be attributed to these prefixes is uncertain. Functional and structural identity exist.

CC.1c: Kik. -rĩ:- Kam. -ĩ:- Emb. Mwi. -rĩ:-

AAAA.5i AAAA.6m BAAA.1g BAAA.2g (& relative and copular forms)

The forms are identical. Two of the endosyntactic unities are the negative equivalents of the others. It is somewhat doubtful whether the Mwimbi should be included. The Kamba shows unusual formal behavior in AAAA.6m, being dropped after CB.4a. The isolable function is in all cases reference to the near future (usually on the day of reference), with an implication of emphasis. Functional and structural identity exists.

CC.1d: Kik. Kam. Emb. Mwi. -rĩ:-

AAAB.5e (& relative and absolute forms)

Only this morpheme determines the position in the ordering of

the element -rĩ:-. Only in this construction does this element precede or co-occur with the conditional prefix. The exact function of this morpheme is uncertain, as is that of the construction in which it occurs. As it does not seem to be proper to recognize identity between this and any other homophonous prefix, this is considered to constitute a morphologic unity peculiar to Mwimbi.

CC.1e: Kik. Kam. -ĩ:- Emb. Mwi. -rĩ:-
BAAA.1e (& relative form)

The two are formally identical. Their isolable function is reference to action in the past on the day of reference, in the context of questions and answers. They are structurally identical. Though similar to CC.1b in form and function, the temporal reference differs, and the two must at present be separated.

D. Conditional Prefix : CD

CD.1a: Kik. ngĩ- Kam. Emb. -ngĩ- Mwi. -ngĩ-
AAAB (ACBB) (ACCB) (ACDB) BAAB (BCBB) (BCCB) (BCDB)

This element occurs in all conditional constructions included in the above unities. Its associated function/meaning is one of hypothetical possibility. Structural identity exists between all the elements in question. The term "conditional" is inappropriate, "potential" or "hypothetical" being more fitting.

E. First Post-conditional Order : CE

CE.1a: Kik. -a- Kam. -a- Emb. -a- Mwi. -a-
AAAA.1a AAAA.2a AAAA.3a AAAA.4a AAAB.1a AAAB.2a AAAB.3a AAAB.4a
BAAA.1a BAAA.2a BAAB.1a BAAB.2a (& relative, copular, absolute forms)

The elements listed are identical within each dialect in form

and function in all the constructions indicated. The structural identity of the morphemes in the four dialects may be assumed from the structural identity of the constructions in which they occur. Though these thus constitute a single morphologic unity, their functions are not entirely identical. The Kikuyu and Embu show identical reference to time earlier than the day before that of reference. The Kamba is similar in function, but constructions including it are used almost exclusively in narrative contexts. The Mwimbi is normally used of time more than a few days before that of reference, but also at times (mainly in negative constructions) even of the past on the day of reference.

CE.1b: Kik. -a- Kam. Emb. -a- Mwi.

AAAA.5a AAAA.6a AAAB.5a AAAB.6a (& relative, copular, absolute)

Formal identity clearly exists. All constructions included in these unities (two are negative equivalents of the others) refer to actions performed an indefinite and unspecified length of time in the past. Functional and structural identity exist. The status of this morphologic unity is, however, uncertain. It always co-occurs with immediately following -na-. If both are distinct morphemes, the analysis here is correct. If the -na- is identical with the morpheme found in the marginal Kikuyu series DA.15c (see Appendix I), this unity should probably be identified with CE.1a. Again, it is possible that the combination -a-na- in fact represents a single morpheme, not two consecutive units. The uncertainty is great enough to justify this analysis and rejection of the intriguing but far from safe alternatives.

CE.1c: Kik. -a- Kam. -a- Emb. -a- Mwi. -a-

AAAA.5e AAAA.6g AAAB.5b AAAB.6b ACDA.3a (& relative, copular, absolute)

These are formally identical. Their isolable functions are of reference to actions completed (not merely initiated or performed) shortly before the point of reference. In some contexts there also seems to be a reference to present or future time. Structural identity exists.

CE.1d: Kik. -a- Kam. -a- Emb. -a- Mwi. -a-

ABAA.1c

In view of this morphologic unity's occurrence in only one endosyntactic unity, structural identity may be assumed. Functional differences exist, though. All are used of actions following that of the main verb in the past on the day of reference. The Kamba and Mwimbi may also be used (the Kamba consistently so) of any past time. This could be considered identical with one of the homophonous morphologic unities, but the evidence for such identification is too uncertain.

CE.2a: Kik. Kam. -a:- Emb. -a:- Mwi. -a:-

AAAA.6b (& relative form)

From occurrence in only one endosyntactic unity, these may be considered structurally identical. Their isolable function is reference to action at an unspecified and indefinite point in the past. Note the difference in length between this and CE.1.

CE.3a: Kik. Kam. -i- Emb. Mwi.

ABAA.1e

This morpheme is peculiar to Kamba and this construction. The con-

struction is used of consecutive action at any future time. The form of the prefix is difficult to analyze structurally. This is a morphologic unity peculiar to Kamba.

CE.3b: Kik. Kam. -i- Emb. Mwi.

ACDA.3f

Despite the similarity in form and distribution, this cannot be identified with CE.3a. The function of the construction in which this morphologic unity, which is peculiar to Kamba, occurs is one of reference to action performed at the same time as that of another verb.

CE.4a: Kik. -ka- Kam. -ka- Emb. -ka- Mwi. -ka-

AABA.1c ABAA.1h ACAA.1b BABA.1c BCAA.1b

Formal identity clearly exists. These are found in jussive constructions and formally identical consecutives indicating a distance in time or space between the action of the verb and some point of reference. Structural identity exists in all cases.

CE.4b: Kik. -ka- Kam. -ka- Emb. -ka- Mwi. -ka-

ABAA.1d BBAA.1a

The endosyntactic unities in which these formally identical elements occur are consecutive, referring to actions performed at the time of the main verb. Functional and structural identity exists.

CE.4c: Kik. Kam. -ka- Emb. -ka- Mwi. -ka-

ACDA.3i

Structural identity may be recognized because of the identity of the constructions in which these morphemes occur. The exact function, even of

the constructions, is unclear (see ACDA.3i and construction inventories). This could be linked with one of the identical elements, but the evidence for such identification is insufficient.

CE.5a: Kik. -kĩ- Kam. -kĩ- Emb. -kĩ- Mwi. -kĩ-

ABAA.1a

Structural identity exists, since these occur in identical constructions. Functional identity is absent, however, as the temporal references of the constructions differ (see ABAA.1a).

CE.5b: Kik. -kĩ- Kam. -kĩ- Emb. -kĩ- Mwi. -kĩ-

ACDA.3e BCDA.1a

Both endosyntactic unities are absolute, with reference to actions performed at the same time as that of the main verb. Formal, functional, and structural identity exist. On the basis of function, this and CE.5a must be separated, despite formal similarities.

CE.5c: Kik. Kam. Emb. -kĩ- Mwi. -kĩ-

ACDA.3j

The morphemes are structurally identical, through occurrence only in the above endosyntactic unity. The functions of the constructions are uncertain, and what portion of those functions is associated with this morphologic unity is less certain. Conceivably, this and CE.5b should be linked, but the evidence is insufficient for identification.

CE.6a: Kik. -kũ- Kam. -kũ- Emb. -kũ- Mwi. -kũ-

AAAA.3d AAAA.4d BAAA.1d BAAA.2d (& relative and copular forms)

Differences in formal behavior and effect on neighbouring elements

exist here and in all morphologic unities of this shape. For details of these dialectal peculiarities see the construction inventories. Formal identity may, however, be recognized because of regular association with the element of these differences. The elements listed here all share reference to action in the past on the day of reference. Structural identity may be recognized.

CE.6b: Kik. -kũ- Kam. -kũ- Emb. Mwi. -kũ-

AAAA.5d AAAA.6d ACDA.3d ACDA.4b (& relative forms)

Two of the four endosyntactic unities are negative equivalents of the others. Besides the normal formal differences, the Kikuyu shows peculiarities of form or distribution. All constructions are used of actions performed before the point of reference. While the exact function is somewhat uncertain, functional and structural identity clearly exist.

CE.6c: Kik. -kũ- Kam. -kũ- Emb. -kũ- Mwi. -kũ-

AAAA.5g AAAA.6i ACDA.3h ACDA.4c (& relative and copular forms)

The constructions all share present or immediate future reference, probably associated with these prefixes. Slight differences in range exist, but functional and structural identity may be recognized.

CE.7a: Kik. Kam. -na:- Emb. Mwi.

AAAA.1c AAAA.3c AAAA.4c BAAA.1c BAAA.2c (& relative and copular)

Formal identity is obvious. The function of the morpheme is in every case reference to action on the day before that of reference and (in non-narrative contexts) before. Structural identity exists. This constitutes a morphologic unity peculiar to Kamba.

CE.7b: Kik. Kam. -na:- Emb. Mwi.

AAAA.5c ACDA.3c (& relative and copular forms)

The two constructions refer to actions performed an unspecified and indefinite time in the past. There also seems at times to be a present signification of sorts, but this is highly uncertain. Functional and structural identity exist.

CE.8a: Kik. Kam. -nee- Emb. Mwi.

AAAA.6e (& relative equivalent)

It is uncertain whether this is a single morpheme or a composite prefix. For lack of evidence, it has been treated as a single unit. In function it refers to action on the day before that of reference, or earlier in non-narrative contexts. It constitutes a morphologic unity peculiar to Kamba.

CE.9a: Kik. -ngo- Kam. Emb. Mwi.

ADAA.1a (& relative)

This occurs only in the above marginal endosyntactic unity. Its function is uncertain. It constitutes a morphologic unity peculiar to Kikuyu.

CE.10a: Kik. -ra:- Kam. Emb. -ra:- Mwi. -ra:-

AAAA.1b AAAA.3b AAAA.4b AAAB.1b AAAB.2b AAAB.3b AAAB.4b ABAA.1b
BAAA.1b BAAA.2b BAAB.1b BAAB.2b (& relative, copular, absolute)

The isolable function/meaning of all these elements is reference to action on the day before that of reference. The range of the Mwimbi sometimes includes a few days earlier, and the Embu and Mwimbi with

suffix -i:te include reference to the past on the day of reference.

However, functional and structural identity exist.

CE.10b: Kik. Kam. Emb. Mwi. -ra:-

AAAA.5b AAAA.6c ACDA.3b (& relative forms)

All elements refer to indefinite and unspecified past time. These are formally, functionally, and structurally identical, and constitute a morphologic unity peculiar to Mwimbi.

CE.10c: Kik. -ra:- Kam. Emb. -ra:- Mwi.

AAAA.5f AAAA.6h AAAB.5c AAAB.6c ACDA.3g (&relative, copular, absolute)

These formally identical elements share reference to actions in progress at the point of reference. Functional and structural identity exist.

F. Second Post-conditional Order : CF

CF.1a: Kik. -ka:- Kam. -ka:- Emb. -ka:- Mwi. -ka:-

AAAA.5j AAAA.6n AAAB.5f AAAB.6e ACAA.1c BAAA.1h BAAA.2h BAAB.1d
BAAB.2d BCAA.1c (& relative, copular, absolute equivalents)

The isolable function/meaning is in each case reference to future action, normally (though not in all cases - see the unities and constructions in question) after the day of reference. Formal and functional and, therefore, structural identity exist in any case.

CF.1b: Kik. Kam. Emb. -ka:- Mwi.

AAAA.5k BAAA.1i

Aside from tone, these are formally identical with CF.1a. Reference is to action an unspecified time in the future. The possibility that these are either complex rather than single units or that they are

conditioned variants of CF.1a cannot be overlooked. Lacking conclusive evidence, these are considered to constitute a morphologic unity peculiar to Embu.

CF.1c: Kik. -ka:- Kam. -ka:- Emb. -ka:- Mwi. -ka:-

AABA.2a BABA.2a

These identical elements occur in the negative independent jussives. A more specific function cannot be isolated, but functional and structural identity exist. This might be identified with one of the homophonous morphologic unities, but there is insufficient evidence.

CF.1d: Kik. Kam. Emb. -ka:- Mwi. -ka:-

ACDA.3j

These occur only in the one endosyntactic unity and are thus structurally identical. Function is uncertain, however. See CE.5c, with which this always co-occurs. This could be identified with one of the homophonous elements, but the evidence is insufficient.

G. Third Post-conditional Order : CG

CG.1a: Kik. -na- Kam. Emb. -na- Mwi.

AAAA.5a AAAA.6a AAAB.5a AAAB.6a (& relative, copular, absolute)

These occur in the listed unities, all of which share a reference to indefinite past time. They always co-occur with CE.1b, with which this may form a single unit, though the evidence for either interpretation is insufficient. Functional and structural identity exists.

CG.1b: Kik. -na- Kam. -na- Emb. -na- Mwi.

AAAA.6f ACDA.4a (& relative equivalent)

Though formal identity exists, there is some functional difference,

in part dialectal. All refer to actions completed immediately before the point of reference. In AAAA.6f, the Kamba element also refers to action in the past on the day of reference, while the Kikuyu and Embu refer to action in the past on the day of reference and that preceding. Functional and structural identity may in any case be recognized.

CG.1c: Kik. -na- Kam. Emb. Mwi.

ADAA.1d (DA.15c)

This element occurs in Kikuyu distinguishing a series of marginal constructions differentiated functionally from their formal counterparts by reference to an indefinite and unspecified point of time. This constitutes a morphologic unity peculiar to Kikuyu. It could be identified with CG.1a on the basis of both form and function. If Embu showed a series of constructions comparable to that found in Kikuyu, such identification would be made. However, it must be concluded that the evidence for such identification is insufficient.

CG.1d: Kik. Kam. Emb. Mwi. -na-

ADAA.1d (GA.12a)

This morphologic unity, peculiar to Mwimbi, resembles CG.1c in form and in distinguishing a series of marginal constructions. In function, in both cases where this has been found it has a function of indication that the action is in some way the result of a previous one. It seems to occur only with consecutive constructions.

CG.2a: Kik. -ro:- Kam. Emb. -ro:- Mwi. -ro:-

AABA.1d BABA.1d

These identical elements have been found in the above endosyntactic unities, with a function of expression of strong wishes. They are functionally and structurally identical. Other dialects of Kamba also include a member of this morphologic unity.

CG.2b: Kik. Kam. Emb. Mwi. -ro:-

ADAA.1d (GA.12b)

This is functionally identical with CG.1c. It is found in marginal variants of normal constructions, adding reference to an unspecified, indefinite point of time. It constitutes a morphologic unity peculiar to Mwimbi.

H. Pre-objective Prefixes : CH

CH.1a: Kik. -ki- Kam. Emb. Mwi.

ADAA.1d (DA.15c) BDAA.1c (DB.09a)

Corresponding to any of the constructions given for Kikuyu may occur another including this element, which, though treated formally as if an objective prefix, precedes any actual objective prefix. It has a function which is difficult to specify - see DA.15c. It constitutes, in any case, a morphologic unity peculiar to Kikuyu. It contrasts with the similar CE.5, with which it may co-occur.

I. Objective Prefixes (Class Constituent): CI

These are not discussed in detail here. A full account will be found in Appendix V. These may occur in any endosyntactic unity, but are obligatory in none.

J. Verb Stems (Class Constituent): CJ

These are not discussed in detail anywhere in this study.

K. Final Suffixes : CK

CK.1a: Kik. -a Kam. -a Emb. -a Mwi. -a

AAAA.5 AAAA.6 AAAB.5 AAAB.6 AABA.1a AABA.1d ABAA.1a ABAA.1b
ABAA.1c ABAA.1d ABAA.1e ABAA.1g ACAA ACDA.3 ACDA.4 ADAA.1a
ADAA.1b ADAA.1c BAAA BAAB BABA.1a BABA.1d BBAA.1a BCAA
BCDA BDAA.1a BDAA.1b (& relative, copular, absolute conditional)

It is not claimed that these constitute a single morphologic unity. In only a very few cases can a function/meaning be isolated as associated with this element, and in such cases the function is peculiar to the constructions involved in one endosyntactic unity. It is most probable that more than one unity is represented here. It is, however, impossible to determine how many are represented, or which are involved in which of the listed endosyntactic unities. No separation has been made, as any separation would be highly dubious. This should not be taken to mean that all occurrences in a single dialect are occurrences of the same morpheme.

CK.2a: Kik. -e Kam. -e Emb. -e Mwi. -e

AABA.1a AABA.1b AABA.1c AABA.2 ABAA.1f ABAA.1h ABAA.2 ACDA.5
BABA.1a BABA.1b BABA.1c BABA.2 BBAA.1b

These are limited to jussives, one absolute, and some consecutives, and all could be considered to share certain semantic peculiarities. But just as in CK.1a the evidence for structural identity is insufficient. Though not separated, these must not be considered necessarily the same morphologic unity. Affiliations are too uncertain for further analysis, but also prevent certain identification.

CK.3a: Kik. -ĩ:te Kam. -ĩ:te Emb. -ĩ:te Mwi. -ĩ:te

AAAA.3 AAAA.4 AAAB.3 AAAB.4 ACDA.1 ACDA.2 (& relative, copular and absolute conditional)

These are identical in form and behavior. In function, all indicate the initiation of an action before a specified point of time, at which the action was still in progress or its results were still in effect. These are structurally identical.

CK.4a: Kik. -ire Kam. -ie Emb. -ire Mwi. -ire

AAAA.1 AAAA.2 AAAB.1 AAAB.2 (& relative, copular, absolute)

Though differing in details of form, the Kamba may be considered formally identical with the others (see Appendix II). These are functionally identical, referring to action at specified points in the past. Their structural identity as members of the same morphologic unity may be recognized.

Notes to Chapter IV:

1. The form quoted is normally the Kikuyu element. Where the element is not represented in Kikuyu, the form closest to Kikuyu in phonology is chosen, the order of preference being Embu, Mwimbi, and Kamba.
2. Note that here no separation is made between elements found in constructions involving regular stems and those used with habitual/continuative stems. Formal behavior is identical, and it can occasionally be shown that the same morpheme occurs in both systems.
3. When a label is underlined, all endosyntactic unities in the subdivision indicated include the morphologic unity in question. Thus AAAA.4 indicates the presence of the morphologic unity in AAAA.4a, AAAA.4b, AAAA.4c, AAAA.4d, AAAA.4e and AAAA.4f.
4. When a label is enclosed in parentheses, the unities included are not specified in detail in Chapters II and III, as is the case with the relatives and copulars.

CHAPTER V: FURTHER POINTS OF SIMILARITY

Section 1 : General

A. Types of Resemblance:

In the foregoing chapters an attempt has been made to list and describe the endosyntactic unities and morphologic unities found in the data investigated on the verbal systems of the four dialects. This was done on a fairly strict basis, in order to avoid statements of structural identity between items where there was more than a given amount of uncertainty. As far as possible, items were separated where by the criteria established there was reason to doubt that they should be identified. However, inspection of the data leads one to conclude that between certain endosyntactic and morphologic unities relationships exist which are not indicated in the discussion so far.

Since it is desired to present as complete as possible an account of the similarities and differences between dialects, it seems right to devote a part of the discussion to these less certain points. It should, however, be remembered that, by the definitions given, these have no necessary structural validity, and in many cases are mere speculation.

A number of different degrees of interrelationship between structural unities may be recognized. Between endosyntactic unities one may recognize structural equivalence, structural association, and morphologic association. Between morphologic unities, one can recognize structural equivalence and structural association, which, however,

are not based on the same criteria as the identical terms used with regard to endosyntactic unities.

B. Order of Presentation:

Relationships between endosyntactic unities will be discussed before morphologic unities. Structural equivalence, structural association, and morphologic association will be discussed in that order. In each case the type of relationship will be defined, an inventory of the sets of unities showing the type of relationship will be given, and these sets will be discussed. In citing unities, the label used earlier will be quoted, and normally one of the forms included in that unity will be given as well, primarily to make the degree of relationship more obvious without the need of consulting the inventories of unities. Normally the pattern or morpheme given will be that found in Kikuyu. When a Kikuyu form is lacking, the Embu, Mwimbi, or Kamba will be given, in that order of preference. This will in some cases be awkward, as on occasion in discussing a Mwimbi form one will be forced to quote the Kikuyu or Embu, for example. In spite of this awkwardness, it seems better to adhere to this principle. To quote now one form, now another, in speaking of the same unity, would be as confusing, and it seems better not to construct a generalized form for purposes of citation.

Section 2 : Endosyntactic Unities Structurally Equivalent

A. Definition:

Endosyntactic unities are said to be structurally equivalent if they satisfy all the criteria for structural identity. In some cases

there exists even complete tonal identity. The only difference is in the area of function/meaning. Where the only difference between endosyntactic unities is that one set of constructions is used with a type of stem different from that with which the other is found, or where the functions of the two are close enough semantically to allow identification, but fall into two different major semantically-based subdivisions, the two may not be considered structurally identical, but may be recognized as structurally equivalent. This implies that there is a strong probability that the division between the two is artificial, even though not all sets of unities separated by belonging to the subdivisions in question are artificially separated.

B. Inventory of Structurally Equivalent Endosyntactic Unities:

These fall into three main groups:

I.AAAA.5i/BAAA.1g	(S+rí:+V+a / S+rí:+V-ágtá)
AAAA.5j/BAAA.1h	(S+kà:+V+a / S+kà:+V-ágtá)
AAAA.5k/BAAA.1i	(S+kà:+V+a / S+kà:+V-ágtà)
AAAA.6m/BAAA.2g	(S+ti+rí:+V+a / S+ti+rí:+V-ágtá)
AAAA.6n/BAAA.2h	(S+ti+kà:+V+a / S+ti+kà:+V-ágtá)
AAAB.5d/BAAB.1c	(S+ngí+V+a / S+ngí+V-ágtá)
AAAB.5f/BAAB.1d	(S+ngí+kà:+V+a / S+ngí+kà:+V-ágtá)
AAAB.6d/BAAB.2c	(S+ti+ngí+V+a / S+ti+ngí+V-ágtá)
AAAB.6e/BAAB.2d	(S+ti+ngí+kà:+V+a / S+ti+ngí+kà:+V-ágtà)
AABA.1a/BABA.1a	(V+a / V-ágtá)
AABA.1b/BABA.1b	(S+V+é / S+V-ágté)
AABA.1c/BABA.1c	(S+kà+V+é / S+kà+V-ágté)
AABA.1d/BABA.1d	(S+rô:+V+a / S+rô:+V-ágtá)
AABA.2a/BABA.2a	(S+ti+kà:+V+é / S+ti+kà:+V-ágté)
ABAA.1d/BBAA.1a	(S+kà+V+a / S+kà+V-ágtá)
ABAA.1f/BBAA.1b	(S+V+è / S+V-ágtè)
ACAA.1a/BCAA.1a	(S+V+a / S+V-ágtá)
ACAA.1b/BCAA.1b	(S+kà+V+a / S+kà+V-ágtá)
ACAA.1c/BCAA.1c	(S+kà:+V+a / S+kà:+V-ágtá)
ACDA.3e/BCDA.1a	(S+ki+V+a / S+ki+V-ágtá)
ADAA.1b/BDAA.1a	(S+V+a / S+V-ágtá)
ADAA.1c/BDAA.1b	(S+V+a / S+V-ágtá)

II.AABA.lb/ABAA.lf ($\acute{S}+V+\grave{e}$ / $\acute{S}+V+\grave{e}$)
 AABA.lc/ABAA.lh ($\acute{S}+ka+V+\grave{e}$ / $\acute{S}+ka+V+\grave{e}$)
 BABA.lb/BBAA.lb ($\acute{S}+V-\grave{a}g+\grave{e}$ / $\acute{S}+V-\grave{a}g+\grave{e}$)

III.ABAA.lg/ACAA.la ($\acute{S}+V+\acute{a}$ / $\acute{S}+V+\acute{a}$)

C. Discussion:

The pairs of unities in the first division of B. show regular correspondence of a regular construction to one found with a habitual/continuative stem. The difference in form is only in tone and the presence of the stem-formant -ag- (in Kamba -a-), and the differences in function are associated with that element only. In most cases even the tonal difference can be shown to be absent, the tonal pattern found with habitual stems being the same as that found with regular stems of the same number of syllables. There is no difference between these not found between constructs of the same construction involving different stems.

The second and third sets above fall into the same general classification. Each pair involves a jussive unity (in the case of the third set subordinate, otherwise independent) and an exactly identical (even in tone) consecutive unit. All the consecutives included have reference to future action, and in each case there is a clear connection between the functions of consecutive and jussive. It should be noted, however, that in no case is the number of dialects sharing the consecutive unity identical with the number sharing the jussive. Kamba has all four jussives, but no such consecutive. Embu shares only one of these consecutives. Mwimbi has two and Kikuyu three, but no dialect includes a member of all four consecutives.

In all these cases it is fairly clear that the distinction is an artificial one. While for parallel treatment with other unities not having such equivalents it was necessary to separate them, these probably represent single endosyntactic unities, not pairs. At the same time, it is possible to present a clearer picture of the regular, habitual, jussive, and consecutive systems and subsystems if these, despite their clear relationship, are separated.

Section 3 : Endosyntactic Unities Structurally Associated

A. Definitions

In many cases there occur sets of unities which satisfy the criteria for structural identity, but which differ considerably in form or function, not only (as with the structurally equivalent unities just discussed) in type of stem used or in being consecutive rather than jussive. The independent, relative, copular, and absolute equivalents of many indicative and conditional unities, for example, are, when tone is ignored, formally identical, and share a great deal of functional/semantic associations. It could be said that this is exactly parallel to the difference between formally identical jussives and consecutives, but this is not so. In the case of structurally equivalent items the functional differences are predictable from the differences of stem, or else the forms are identical, even to tone. In the cases under discussion, there are, within the same dialect, differences of tone (and choice of subjective prefix) which cannot be shown to be in any way conditioned and which correlate with direct

contrasts in function/meaning. That some structural relationship exists is clear from the formal and functional similarity; but the direct contrast in both form and function prevents recognition of both structural identity and structural equivalence. They are classed here as structurally associated.

Even where unities contrast overtly in form structural association may exist. If two unities are identical (except for tone) in form, except that one includes an element lacking in the other as a constituent, and the functions of the two differ only in a way which can be predicted from the associated function of the differentiating constituent, the two are considered paradigmatically structurally associated.

Paradigmatic structural association is also recognized if a set of two or more unities differs formally from one another only in the substitution in a given position in the order of constituents of different elements. In this case it must be possible to show that the same or a similar functional difference is found elsewhere to co-occur with the same or a similar difference in form. In no case may structural association be recognized if two or more of the constituents of one unity are not found or replaced by others in another unity.

B. Inventory of Structurally Associated Endosyntactic Unities:

Structural association may be recognized in the following:

- I. The independent, relative, and copular equivalents of the unities included in AAAA and BAAA, where such exist.
- II. The independent, relative, copular, and absolute equivalents, where such exist, of the unities included in AAAB and BAAB.

III.AAAA.3f/ACDA.1a	(S+V+i:tè / S+V+i:té)
AAAA.4f/ACDA.2a	(S+ti+V+i:tè / S+ta+V+i:tè)
AAAA.5b/ACDA.3b	(S+râ:+V+a / S+râ:+V+a)
AAAA.5c/ACDA.3c	(S+nâ:+V+a / S+nâ:+V+a)
AAAA.5d/ACDA.3d	(S+kû+V+a / S+kû+V+a)
AAAA.5e/ACDA.3a	(S+a+V+a / S+a+V+a)
AAAA.5f/ACDA.3g	(S+râ:+V+a / S+râ:+V+a)
AAAA.5g/ACDA.3h	(S+kû+V+a / S+kû+V+a)
AAAA.6d/ACDA.4b	(S+ti+kû+V+a / S+ti+kû+V+a)
AAAA.6f/ACDA.4a	(S+ti+nâ+V+a / S+ta+nâ+V+a)
AAAA.6i/ACDA.4c	(S+ti+kû+V+a / S+ta:+kû+V+a)
BAAA.1f/BCDA.1b	(S+V-ag+a / S+V-ag+a)

With each pair there are associated the relative and copular equivalents of the independent, as stated in I.

IV.AAAA.1a/AAAA.2a	(S+a+V+iré / S+ti+a+V+iré)
AAAA.1d/AAAA.2b	(S+V+iré / S+ti+V+iré)
AAAA.3a/AAAA.4a	(S+a+V+i:té / S+ti+a+V+i:té)
AAAA.3b/AAAA.4b	(S+râ:+V+i:té / S+ti+râ:+V+i:té)
AAAA.3c/AAAA.4c	(S+nâ:+V+i:té / S+ti+nâ:+V+i:té)
AAAA.3d/AAAA.4d	(S+kû+V+i:té / S+ti+kû+V+i:té)
AAAA.3e/AAAA.4e	(S+i:+V+i:té / S+ti+i:+V+i:té)
AAAA.3f/AAAA.4f	(S+V+i:té / S+ti+V+i:té)
AAAA.5a/AAAA.6a	(S+a+nâ+V+a / S+ti+a+nâ+V+a)
AAAA.5b/AAAA.6c	(S+râ:+V+a / S+ti+râ:+V+a)
AAAA.5d/AAAA.6d	(S+kû+V+a / S+ti+kû+V+a)
AAAA.5e/AAAA.6g	(S+a+V+a / S+ta:+V+a)
AAAA.5f/AAAA.6h	(S+râ:+V+a / S+ti+râ:+V+a)
AAAA.5g/AAAA.6i	(S+kû+V+a / S+ti+kû+V+a)
AAAA.5i/AAAA.6m	(S+ri:+V+a / S+ti+ri:+V+a)
AAAA.5j/AAAA.6n	(S+ka:+V+a / S+ti+ka:+V+a)
AAAB.1a/AAAB.2a	(S+ngi+a+V+iré / S+ti+ngi+a+V+iré)
AAAB.1b/AAAB.2b	(S+ngi+râ:+V+iré / S+ti+ngi+râ:+V+iré)
AAAB.1c/AAAB.2c	(S+ngi+V+iré / S+ti+ngi+V+iré)
AAAB.3a/AAAB.4a	(S+ngi+a+V+i:té / S+ti+ngi+a+V+i:té)
AAAB.3b/AAAB.4b	(S+ngi+râ:+V+i:té / S+ti+ngi+râ:+V+i:té)
AAAB.3c/AAAB.4c	(S+ngi+V+i:té / S+ti+ngi+V+i:té)
AAAB.5a/AAAB.6a	(S+ngi+a+nâ+V+a / S+ti+ngi+a+nâ+V+a)
AAAB.5b/AAAB.6b	(S+ngi+a+V+a / S+ti+ngi+a+V+a)
AAAB.5c/AAAB.6c	(S+ngi+râ:+V+a / S+ti+ngi+râ:+V+a)
AAAB.5d/AAAB.6d	(S+ngi+V+a / S+ti+ngi+V+a)
AAAB.5f/AAAB.6e	(S+ngi+ka:+V+a / S+ti+ngi+ka:+V+a)
ABAA.1f/ABAA.2a	(S+V+è / S+ti+V+è)
ACAA.1a/ACAA.2a	(S'+V+a / S+ta+V+a)
ACDA.1a/ACDA.2a	(S+V+i:té / S+ta+V+i:té)
ACDA.3d/ACDA.4b	(S+kû+V+a / S+ti+kû+V+a)
ACDA.3h/ACDA.4c	(S+kû+V+a / S+ta:+kû+V+a)
BAAA.1a/BAAA.2a	(S+a+V-ag+a / S+ti+a+V-ag+a)

- BAAA.1b/BAAA.2b (S+râ:+V-âg+a / S+ti+râ:+V-âg+a)
 BAAA.1c/BAAA.2c (S+nâ:+V-'a+a / S+ti+nâ:+V-'a+a)
 BAAA.1d/BAAA.2d (S+kû+V-âg+a / S+ti+kû+V-âg+a)
 BAAA.1f/BAAA.2e (S+V-âg+a / S+ti+V-âg+a)
 BAAA.1g/BAAA.2g (S+rî:+V-âg+a / S+ti+rî:+V-âg+a)
 BAAA.1h/BAAA.2h (S+ka:+V-âg+a / S+ti+ka:+V-âg+a)
 BAAB.1a/BAAB.2a (S+ngî+a+V-âg+a / S+ti+ngî+a+V-âg+a)
 BAAB.1b/BAAB.2b (S+ngî+râ:+V-âg+a / S+ti+ngî+râ:+V-âg+a)
 BAAB.1c/BAAB.2c (S+ngî+V-âg+a / S+ti+ngî+V-âg+a)
 BAAB.1d/BAAB.2d (S+ngî+ka:+V-âg+a / S+ti+ngî+ka:+V-âg+a)
- V.AAAA.1a/AAAB.1a (S+a+V+îrê / S+ngî+a+V+îrê)
 AAAA.1b/AAAB.1b (S+râ:+V+îrê / S+ngî+râ:+V+îrê)
 AAAA.1d/AAAB.1c (S+V+îrê / S+ngî+V+îrê)
 AAAA.2a/AAAB.2a (S+ti+a+V+îrê / S+ti+ngî+a+V+îrê)
 AAAA.2b/AAAB.2c (S+ti+V+îrê / S+ti+ngî+V+îrê)
 AAAA.3a/AAAB.3a (S+a+V+i:tê / S+ti+a+V+i:tê)
 AAAA.3b/AAAB.3b (S+râ:+V+i:tê / S+ngî+râ:+V+i:tê)
 AAAA.3f/AAAB.3c (S+V+i:tê / S+ngî+V+i:tê)
 AAAA.4a/AAAB.4a (S+ti+a+V+i:tê / S+ti+ngî+a+V+i:tê)
 AAAA.4b/AAAB.4b (S+ti+râ:+V+i:tê / S+ti+ngî+râ:+V+i:tê)
 AAAA.4f/AAAB.4c (S+ti+V+i:tê / S+ti+ngî+V+i:tê)
 AAAA.5a/AAAB.5a (S+a+nâ+V+a / S+ngî+a+nâ+V+a)
 AAAA.5e/AAAB.5b (S+a+V+a / S+ngî+a+V+a)
 AAAA.5f/AAAB.5c (S+râ:+V+a / S+ngî+râ:+V+a)
 AAAA.5j/AAAB.5f (S+ka:+V+a / S+ngî+ka:+V+a)
 AAAA.6a/AAAB.6a (S+ti+a+nâ+V+a / S+ti+ngî+a+nâ+V+a)
 AAAA.6g/AAAB.6b (S+tâ:+V+a / S+ti+ngî+a+V+a)
 AAAA.6h/AAAB.6c (S+ti+râ:+V+a / S+ti+ngî+râ:+V+a)
 AAAA.6n/AAAB.6e (S+ti+ka:+V+a / S+ti+ngî+ka:+V+a)
 BAAA.1a/BAAB.1a (S+a+V-âg+a / S+ngî+a+V-âg+a)
 BAAA.1b/BAAB.1b (S+râ:+V-âg+a / S+ngî+râ:+V-âg+a)
 BAAA.1f/BAAB.1c (S+V-âg+a / S+ngî+V-âg+a)
 BAAA.1h/BAAB.1d (S+ka:+V-âg+a / S+ngî+ka:+V-âg+a)
 BAAA.2a/BAAB.2a (S+ti+a+V-âg+a / S+ti+ngî+a+V-âg+a)
 BAAA.2b/BAAB.2b (S+ti+râ:+V-âg+a / S+ti+ngî+râ:+V-âg+a)
 BAAA.2e/BAAB.2c (S+ti+V-âg+a / S+ti+ngî+V-âg+a)
 BAAA.2h/BAAB.2d (S+ti+ka:+V-âg+a / S+ti+ngî+ka:+V-âg+a)
- VI.AABA.1b/AABA.1c (S+V+ê / S+ka+V+ê)
 ABAA.1f/ABAA.1h (S+V+ê / S+ka+V+ê)
 ACAA.1a/ACAA.1b (S+V+a / S+ka+V+a)
 BABA.1b/BABA.1c (S+V-âg+ê / S+ka+V-âg+ê)
 BCAA.1a/BCAA.1b (S+V-âg+a / S+ka+V-âg+a)
- VII.ACAA.1a/ACAA.1c (S+V+a / S+ka:+V+a)
 BCAA.1a/BCAA.1c (S+V-âg+a / S+ka:+V-âg+a)

VIII.Pairs one member of which includes CG.1c,CG.1d, CG.2b, or CH.1a.

IX.AAAA.1a-d	: S+X+V+ire	: X= CE.1,CE.10,CE.7, ∅
AAAA.2a-b	: S+N̄+X+V+ire	: X= CE.1, ∅
AAAA.3a-f	: S+X+V+ī:te	: X= CE.1,CE.10,CE.7,CE.6, CC.1,∅
AAAA.4a-f	: S+N+X+V+ī:te	: X= CE.1,CE.10,CE.7,CE.6, CC.1, ∅
AAAA.5f-g,5i-k	: S+X+V+a	: X= CE.10,CE.6,CC.1,CF.1, CF.1
AAAA.6b,6e-f,6h-i, 6m-n	: S+N+X+V+a	: X= CE.2,CE.8,CG.1,CE.10, CE.6,CC.1,CF.1
AAAB.1a-c	: S+ngī+X+V+ire	: X= CE.1,CE.10, ∅
AAAB.2a-c	: S+N+ngī+X+V+ire	: X= CE.1, CE.10,∅
AAAB.3a-c	: S+ngī+X+V+ī:te	: X= CE.1,CE.10, ∅
AAAB.4a-c	: S+N+ngī+X+V+ī:te	: X= CE.1,CE.10, ∅
AAAB.5c-d,5f	: S+ngī+X+V+a	: X= CE.10, ∅,CF.1
AAAB.6c-e	: S+N+ngī+X+V+a	: X= CE.10, ∅,CF.1
ABAA.1a-c,1e	: S+X+V+a	: X= CE.5,CE.10,CE.1,CE.3
BAAA.1a-d,1f-i	: S+X̄+V-ag+a	: X= CE.1,CE.10,CE.7,CE.6, ∅,CC.1,CF.1,CF.1
BAAA.2a-h	: S+N+X+V-ag+a	: X= CE.1,CE.10,CE.7,CE.6, ∅, ∅,CC.1,CF.1
BAAB.1a-d	: S+ngī+X+V-ag+a	: X= CE.1,CE.10, ∅,CF.1
BAAB.2a-d	: S+N+ngī+X+V-ag+a	: X= CE.1,CE.10, ∅,CF.1
X.AAAA.1a/AAAA.3a	(S+a+V+iré / S+a+V+ī:te)	
AAAA.1b/AAAA.3b	(S+râ:+V+iré / S+râ:+V+ī:te)	
AAAA.1c/AAAA.3c	(S+nâ:+V+iré / S+nâ:+V+ī:te)	
AAAA.2a/AAAA.4a	(S+ti+a+V+iré / S+ti+a+V+ī:te)	
AAAB.1a/AAAB.3a	(S+ngī+a+V+iré / S+ngī+a+V+ī:te)	
AAAB.1b/AAAB.3b	(S+ngī+râ:+V+iré / S+ngī+râ:+V+ī:te)	
AAAB.2a/AAAB.4a	(S+ti+ngī+a+V+iré / S+ti+ngī+a+V+ī:te)	
AAAB.2b/AAAB.4b	(S+ti+ngī+râ:+V+iré / S+ti+ngī+râ:+V+ī:te)	
XI.AAAB.3c/AAAB.5d	(S+ngī+V+ī:te / S+ngī+V+a)	
AAAB.4c/AAAB.6d	(S+ti+ngī+V+ī:te / S+ti+ngī+V+a)	

C. Discussion:

The first two of these sets of structurally associated endosyntactic unities need little further comment. In each case close formal and functional similarity exists, but there is not enough for structural equivalence, because of unconditioned formal differences corresponding to functional differences. With these belongs the third set, which

includes independent, relative, and copular equivalents of certain absolute indicative unities.

The pairs of the fourth division differ (except for tone) only in the presence in one member of a negative prefix and its associated function of negation. In the fifth, the formal and functional difference arise from the presence in one member of each pair of the conditional prefix with its associated function. In the sixth one member includes CE.4 with an associated function/meaning of distance in space or time. In the seventh similarly one member includes CF.1 with reference to action at a point more than a day beyond the point of reference. All of these, because they show overt formal differences, must be considered to be paradigmatically structurally associated. This is true also of VIII, which includes the various series of marginal unities.

The ninth set is somewhat different. Each group includes two or more unities, all with temporal reference, and all identical except for one prefixed element, occurring at the same point in all members of each set. There is enough in common between the members of each set, and enough parallelism between sets in range of temporal reference, to justify the conclusion that the members of each set are somehow connected in structure. It will be noted that there is also parallelism in order in the series of elements of the same shape; thus CE.10 never precedes CE.1 in temporal order. Similar sets could be established, or the sets given expanded, on the basis of form. But the additional unities would differ in lacking tense reference, and also in other formal features, in some cases. It should be noted that

in the case of unities with final -a it cannot be entirely certain that the sets given differ only in one morphologic constituent, because of the uncertainty as to the morphologic status of that element. In the tenth set, one member of each has suffix -f:te and reference to actions performed or initiated having results still in effect at the time indicated, while the other member has suffix -ire and refers simply to action at a specified point of time. The eleventh set is similar, and the functional difference is the same, but instead of -ire one member of each set has the suffix -a. All of these may also be considered paradigmatically structurally associated.

It should be noted that these sets very nearly allow the establishment of class constituents including, for example, tense-indicating prefixed elements. In a few cases this would be possible and perhaps desirable because of the resulting reduction in number of unities differentiated. However, the sets are not sufficiently regular, and show so many exceptions that description on such a basis would be considerably more difficult, if not impossible.

Section 4 : Endosyntactic Unities Morphologically Associated

A. Definition:

Any morphologic unities which share a given morphologic constituent, other than a class constituent, may be said to be morphologically associated. In some cases there may also be some structural connection on an endosyntactic level, but other than the structurally equivalent and structurally associated unities discussed above such structural

connection is highly improbable, or at least not highly probable. This is especially so in the case of unities with final suffix -a, which may represent a number of morphologic unities.

B. Discussion:

The number of morphologically associated unities is too great to allow presentation of a detailed inventory. In many cases there are sets of items identical (as far as can be told) in morphologic composition, such as the set ABAA.lg/ACAA.la/ADAA.lb/ADAA.lc ($\acute{S}+V+\acute{a}/\acute{S}+V+\acute{a}/S+V+\grave{a}/S+V+\acute{a}$). In view of the tonal and, in many cases, functional differences between members of such sets, nothing more than morphologic association can be recognized, and if breakdown into individual unities of the final suffix -a were possible even that might not be recognized.

In other cases identical forms, as AAAA.5b and AAAA.5f ($S+r\grave{a}:+V+\acute{a}/S+r\acute{a}:+V+\acute{a}$), show functional differences because of which they are classed as differing morphologically. A number of such sets show parallel functional differences, which leads one to wonder whether a closer connection might exist.

However, because of formal or functional differences, any endosyntactic unity not specifically said to be structurally equivalent to or associated with another must be considered to be either morphologically associated or else in no way connected. No further certain links between endosyntactic unities can be recognized on the basis of the present morphologic analysis. In some cases, they may share equivalent or associated morphologic unities. However, it seems best not to indicate relationship of such a degree at this point.

Section 5 : Morphologic Unities Structurally Equivalent

A. Definition:

The definition of structural equivalence with regard to morphologic unities clearly cannot be the same as that given for endosyntactic unities. If a similar degree of relationship existed, the unities would have been classed structurally identical. In this context structural equivalence is said to exist when two elements occur in functionally identical constructions in different dialects. There may be no formal difference (except tonal) not due to the difference in the element, and the ranges of the two morphologic unities must be equivalent. If a construction including one element is functionally identical with a construction in the other dialect, and the differentiating element in the other dialect is not that with which the first element is being compared, no two of the elements may be considered structurally equivalent. Further, neither unity must occur in both dialects.

B. Discussion:

The number of sets is small enough so that it seems in this case better not to state the inventory separately, but rather to include such statement with the discussion of the individual sets of unities, since each must be justified in detail.

In Kamba, and only within Kamba, there is structural equivalence of CE.3 and CE.5. CE.3a and CE.5a, CE.3b and CE.5b, are identical in function and range of distribution. It should be noted here that the Kamba morpheme included in CE.5a is functionally distinct from those of the other dialects, so that CE.3a cannot be considered to

be structurally equivalent to any item in the other dialects. CE.3b, however, is functionally equivalent to all members of CE.5b. The recognition of structural equivalence between unities belonging to the same dialect is, it is true, not allowed. However, although my informant has used both, CE.5 is in fact foreign to his speech, due to contact with speakers of other forms of Kamba, including the standardized form used in schools. The distribution supports this: he has used CE.5 almost exclusively in formal translation out of English, almost never in freely dictated text. Though in Kamba such phonetic shifts as post-nasal voicing, loss of intervocalic consonants, and even complete loss of prefix in some cases have to be taken into consideration, these cannot be considered variant forms of the same element. The differences between CE.3 (-i-) and CE.5 (-kĩ-) include absence of consonant, difference of vowel quality, and (most important) difference of initial consonant after the subjective prefix of Class A. In combination, these prevent any assumption of basic formal identity.

The element CE.7 (-na:-) is found only in Kamba, which lacks CE.10 (-ra:-). CE.7a and CE.10a are structurally equivalent, despite slight functional difference. CE.7b and CE.10b, both used of indefinite past time, may be said to be structurally equivalent also. With this latter pair the combination of CE.1b and CG.1a (-a-na-), if in fact this is a single unity, rather than a combination of always co-occurrent unities, could be called structurally equivalent. It seems in this case, however, that one of the other possible analyses is correct.

CG.1d (-na-) and CH.1a (-kĩ-), in Mwimbi and Kikuyu, might be

structurally equivalent. The functions are not certain enough, however, and the range of distribution does not encourage assumption of equivalence. CG.1c (-na-) and CG.2b (-ro:-), in Kikuyu and Mwimbi, however, may certainly be said to be structurally equivalent.

In the case of CE.7 and CE.10, and to a much lesser extent in the case of CE.3 and CE.5, there is some possibility that the structurally equivalent items represent originally formally identical items whose forms diverged dialectally. This possibility, however, can hardly be said to exist in the case of CG.1c and CG.2b.

Section 6 : Morphologic Unities Structurally Associated

A. Definition:

Structurally associated morphologic unities again do not show the same relationship as structurally associated endosyntactic unities. Though functional contrast exists, formal identity is found. Further, there is some functional similarity, in that the functions bear the same relationship to the functions of other specified unities. Inspection of the ninth set of structurally associated endosyntactic unities shows much parallelism in temporal order in the series of elements of the same shape. In each set where an item involving CE.10 occurs, it has time reference earlier than that of one involving CE.6, for example. This type of parallelism leads one to suspect a structural connection between the units so associated. The same might be said for all sets of formally identical morphologic unities, but here the parallelism lends support.

B. Inventory of Structurally Associated Morphologic Unities :

Structural Association may certainly be recognized in the following cases:

- I. CE.10a/CE.7a(-ra:-/-na:-) : CE.10c(-ra:-)
- II. CE.6a(-kū-) : CE.6c(-kū-)
- III. CC.1b(-rī:-) : CC.1e(-rī:-)
- IV. CC.1a(-ī:-) : CC.1c(-rī:-)

In the following cases, though far from certain, it may also exist:

- V. CE.1a(-a-) : CE.1c(-a-)
- VI. CE.10a/CE.7a - CE.10c(-ra:-/-na:- - -ra:-) : CE.10b/CE.7b(-ra:-/-na:-)
- VII. CE.6a - CE.6c(-kū- - -kū-) : CE.6b(-kū-)

C. Discussion :

In the first four sets, one member (or pair of structurally equivalent members) has reference to past time, the other reference to present or future time. The order in which they are given reflects the temporal ordering, of both the past and present/future sets. The only morphologic unities occurring in paradigmatically associated sets of endosyntactic unities with tense reference which do not show pairing of formally identical unities with past and present/future reference are CE.1a, CF.1a, and CF.1b : those which indicate the furthest past and future action. All time on the day of reference and that preceding is covered by these four sets.

In the case of the last three sets, there is a temptation to recognize structural association. There are no significant formal differences within individual dialects. In the sixth, there is as added confirmation the structural equivalence of Kamba -na:- to -ra:- in other dialects on both sides. One member (or group of structurally

equivalent members) of each indicates temporal reference, the other indicates aspect in atemporal unities. The existence of three such sets is itself an argument in favor of recognition of structural association; the functional differences are no greater than those between members of the first four sets. It seems reasonable to assume, though with less certainty, the existence of structural association in all seven cases.

All cases of homophonous morphologic unities, except the pairs CC.1c - CC.1e (-ri:-), CE.5 - CH.1 (-ki-), and CF.1a - CF.1b (-ka:-), where contrast within single dialects exists, could in theory be considered structurally associated. However, in cases other than those listed, the formal and functional evidence is insufficient and such recognition is impossible.

While the cases of structurally equivalent morphologic unities could be taken as evidence, in some instances, of original identity followed by formal divergence, here one could in some cases suspect original identity followed by functional divergence. A fuller discussion of the implications of recognition of structural equivalence and association between morphologic unities will be found in Chapter VII.

CHAPTER VI: FURTHER POINTS OF DISSIMILARITY

Section 1 : General

A. Introductory Remarks :

In Chapter I it was stated that a full and adequate analytic internal comparison must describe both points of resemblance and points of difference. To some extent this has already been done, through indication of divergences in the presentation of endosyntactic and morphologic unities. However, other differences exist, and even those already introduced have been mentioned only in the context of presentation of unities, points of similarity, as possible objections to the analysis accepted. It is necessary, therefore, to indicate here at least the major points of difference.

The account which follows, accordingly, will complete the essential description and comparison of the four systems. For various reasons, the inventory of points of difference cannot be complete. Tone will again be omitted, as well as differences in contextual behavior of subjective prefixes. Differences in inventory of copular and relative subsystems, and similar sets of differences, will not be discussed. The areas not touched upon here are the same as those omitted from the presentation of similarities, and they are omitted for much the same reason. Their omission has no serious effect upon the validity of the comparison.

B. Presentation :

Formal, functional, and structural differences will be listed in

that order. Formal differences, aside from those in tone, which are not discussed, includes primarily the behavior of certain morphemes in the various dialects in specific environments. The existence of structurally equivalent morphologic unities could be looked upon as constituting a point of formal difference, but these actually will be treated as coming under the heading of structural differences.

Functional differences are more numerous and important than formal. In very many cases there are differences in function between constructions included in the same endosyntactic unity. There are also differences in the number and type of constructions in which morphemes belonging to the same morphologic unity may occur, but these will not be discussed.

Structural differences are concerned with the overall systems of the four dialects. There are two main types of structural difference. One involves the presence in one system of constructions expressing semantic/functional categories absent from other systems, or the absence of constructions expressing such categories present in others. The other type involves the expression of a given function common to two dialects by different endosyntactic unities. This is possible because functional identity may exist between two structurally distinct constructions belonging to the same endosyntactic unities as two directly contrasting constructions from another dialect.

To each of these three types of difference a section of the discussion will be devoted. Within the discussion of each, it will be impossible to present differences in any definite order. As far

as possible, the natural ordering resulting from the order of presentation in previous chapters will be followed, but there will be numerous exceptions. Unlike the points of similarity, as was stated earlier, the points of divergence do not lend themselves well to orderly presentation.

Section 2 : Presentation of Differences

A. Formal Differences :

1. Kamba, in one construction, that included in AAAA.6m ($\hat{S}+t\hat{i}+r\hat{i}:+V+\hat{a}$)¹, fails to realize CG.1c ($-r\hat{i}:-$) after CB.4a ($-t\hat{i}-$); other constructions in this unity, other formal variants of this construction in Kamba, and other Kamba constructions where the two co-occur show no such phenomenon.
2. In Mwimbi certain prefixed elements (primarily CE.1, $-a-$) coalesce with the negative prefix CB.3a ($-t\hat{i}-$).
3. No two dialects show the same formal behavior and effects on other elements in the morphologic unities of CE.6 ($-k\hat{u}-$). For details see the Appendices I-IV.
4. In Kamba and no other dialect the t of CB.4a ($-t\hat{i}-$) is usually elided in intervocalic position.
5. In Kikuyu only, after CG.2a ($-ro:-$), the vowels \hat{i} and \hat{u} are lowered to e and o.
6. The position in the stem of the habitual/continuative stem-formant -ag- is the same in all dialects but Kamba. See Appendices I-IV.

7. In Kikuyu only, the final vowel of all final suffixes is altered in conjunction with the passive stem-formant -w-, both -wa and -we of other dialects corresponding to Kikuyu -wo.

B. Functional Differences :

1. Kamba constructions including CE.1a(-a-) differ from such constructions in other dialects in being used only in narrative contexts.
2. Mwimbi constructions involving CE.10a (-ra:-) show a greater temporal range than the Kikuyu and Embu equivalents.
3. All negative constructions in Mwimbi including CE.1a (-a-), except AAAB.2a(S+ti+ngi+a+V+ire), differ in range from their equivalents in other dialects in including the range of affirmative Mwimbi equivalents in CE.10a(-ra:-) as well.
4. Where CE.10a(-ra:-) and structurally equivalent CE.7a(-na:-) co-occur with CK.3a(-i:te), Kikuyu and Kamba differ in range from Embu and Mwimbi.
5. No two constructions in AAAA.5g(S+ku+V+a) have exactly the same temporal range.
6. The Kikuyu and Embu constructions in AAAA.5g(S+ku+V+a) and BAAA.1d(S+ku+V-ag+a) differ from the Kamba and Mwimbi in being (S+ri:+V+a) and BAAA.1e(S+ri:+V-ag+a). Itute AAAA.5h (S+ri:+V+a) and BAAA.1e(S+ri:+V-ag+a).
7. The Kikuyu construction in AAAA.5i(S+ri:+V+a) differs slightly from the others in range.
8. Mwimbi constructions including CF.1a(-ka:-) have wider range than those in other dialects.

9. The function of the Kamba construction in AAAA.6f(S'ti+na+V+a) is more limited than the others.
10. The Kamba member of AAAA.6b(S'ti+a:+V+a) has a wider range of function than the others.
11. The Kamba and Kikuyu of AAAA.6m (S'ti+ri:+V+a) show a difference not exactly parallel to that found in the affirmative equivalent, AAAA.5i (S'ri:+V+a).
12. In AAAB.6d(S'ti+ngi+V+a) the Mwimbi is so different from the Kikuyu and Embu that recognition of a separate unity is almost necessary.
13. The independent jussives in the various dialects differ in that in those dialects having subordinate jussives varying portions of the functions of the jussive in Kikuyu (which lacks subordinate jussives) are found with the subordinates.
14. The Kamba member of ABAA.1a(S'ki+V+a) differs greatly from the others, which to a lesser degree differ among themselves.
15. The Mwimbi member of ABAA.1f(S'+V+e) differs in not being used after negatives, ABAA.1g (S'+V+'a) being substituted.
16. The constructions in the various subordinate jussive unities show great differences in function.
17. Some functional difference may be present in ACDA.3i(S'+ka+V+a) or ACDA.3j(S'+ki+ka:+V+a), but the functions are too hard to define for this to be certain.

C. Structural Differences :

The presentation of structural differences of the first sort,

those in which there is present in one dialect an item expressing a functional/semantic category not expressed in one or more of the other dialects, involves to some extent duplication of statements made in the introduction concerning the general characteristics of the verbal systems. It is also more difficult to state such differences than it was to list formal and functional points.

A few cases are specific. Embu lacks the function/meaning of AAAA.5d(S+kũ+V+a). Only Kamba and Mwimbi have constructions used in place of others in purely conversational environments, unless one includes such Embu constructions as that in ADAA.1c (S+V+a). The environmental differentiation of EA.01a (S+a+V+ie) and EA.01b(S+nâ:+V+ie) and similar constructions is limited to Kamba. Only Kamba, again, has a subordinate negative jussive construction. Only Embu has items with the function of AGAA.1c (S+ka:+V+a). In the consecutives, only Mwimbi has a form used after a negative construction distinguished from an equivalent used after affirmatives, and only Kikuyu has a negative consecutive. Kikuyu and Embu seem to lack absolutes parallel in function to ACDA.3b(S+ra:+V+a), though Kamba shows a construction with this meaning. No Kamba construction equivalent to ACDA.3g(S+ra:+V+a) has been found, but one probably in fact exists. Kikuyu lacks a functional equivalent of ACDA.3i(S+ka+V+a), while Kikuyu and Kamba do not have constructions functionally identical with ACDA.3j(S+ki+ka:+V+a). ACDA.4b(S+ti+kũ+V+a) in Mwimbi is not semantically identical with ACDA.4a(S+ta+nâ+V+a) in the other dialects, though similar. ACDA.5a (S+ta+V+e) is both in form and in function peculiar to Embu.

Embu lacks the function of BCDA.lb(S+V-àg+â), while Kamba has no equivalent for BCDA.la(S+ki+V-àg+â). The function of ADAA.la(S+ngo+V+â) is limited to Kikuyu. ADAA.lb, ADAA.lc, BDAA.la, and BDAA.lb may be limited to Embu, but might be said to correspond to other items in function.

More generally, there are great differences in the tense systems. Division of future time into immediate, later on the day of reference, after the day of reference, and indefinite is found in none of the four. Kikuyu and Kamba show the first three divisions, Embu the last three, and Mwimbi distinguishes only immediate future time from the future in general. Distinctions are more common in the negative with regular stems, but this is not so much through the presence of additional temporal references as to expression of categories such as impossibility of the action. In the past, all four may be said to distinguish action on the day of reference, on that preceding, and action at any other time, including indefinite past as well, though it is doubtful whether this counts as time reference. In the past, however, there are variations between dialects in range of usage and expression of additional categories. In the consecutive system, only Kikuyu shows a set of constructions with ranges parallel to those of independents. Embu distinguishes past on the day of reference from that before, Mwimbi action on the day of reference and up to a few days before from action earlier in the past. Kamba shows no distinction in the past, and all dialects only distinguish one division of future time in consecutives. Aside from the tense system, Kamba differs in having no conditionals, while Mwimbi has very few conditionals, none being found with habitual

stems and all with temporal reference. Kikuyu, on the other hand, entirely lacks subordinate jussives.

It should be noted that the majority of functional/semantic categories listed above as "lacking" in a given dialect are in fact capable of periphrastic expression. The conditionals have equivalents in Kamba, for example, these involving exosyntactic constructions. Since this study is concerned exclusively with endosyntactic constructions, it is not improper to ignore these. It must, however, be remembered that even if a dialect lacks endosyntactic constructions to express these semantic categories most of them, if not all, it can in fact express.

Cases of the second type, of different forms expressing the same function, are fairly frequent. The following sets are found:

1. Kamba AAAA.6b(S+ti+a+'V+a) = Kikuyu, Embu, Mwimbi AAAA.2a(S+ti+a+V+ire)
2. Kikuyu - Embu AAAA.6f(S+ti+na+V+a) = Kamba AAAA.6e(S+ti+nee+V+a) = Mwimbi AAAA.2a(S+ti+a+V+ire)
3. Kikuyu, Kamba, Embu AAAA.6f(S+ti+na+V+a) = Mwimbi AAAA.2b(S+ti+V+ire)
4. Kamba AAAA.1c(S+na:+V+ie) = AAAA.1b(S+ra:+V+ire) of the others.
5. Kamba AAAA.3c(S+na:+V+i:te) = Kikuyu, Embu, Mwimbi AAAA.3b(S+ra:+V+i:te)
6. Kikuyu AAAA.3d(S+ku+V+i:te) = Kamba AAAA.3e(S+i:+V+i:te) = Embu and Mwimbi AAAA.3b(S+ra:+V+i:te)
7. Kikuyu, Embu AAAA.4b(S+ti+ra:+V+i:te) = Kamba AAAA.4c(S+ti+na:+V+i:te) = Mwimbi AAAA.4a(S+ti+a+V+i:te)
8. Kikuyu AAAA.4d(S+ti+ku+V+i:te) = Kamba AAAA.4e(S+ti+i:'V+i:te) = Embu AAAA.4b(S+ti+ra:+V+i:te) = Mwimbi AAAA.4a(S+ti+a+V+i:te)
9. Kikuyu, Embu AAAA.5a(S+a+na+V+a) = Mwimbi AAAA.5b(S+ra:+V+a) = Kamba AAAA.5c(S+na:+V+a)

10. Kikuyu, Embu AAAA.5f(S+râ:+V+á) = Kamba, Mwimbi AAAA.5g(S+kũ+V+á)
11. Mwimbi AAAA.5j(S+kà:+V+á) = all forms with future reference
in other dialects.
12. Embu AAAA.5k(S+ká:+V+á) = Kikuyu, Kamba, Mwimbi AAAA.5j(S+kà:+V+á)
13. Kikuyu, Embu AAAA.6a(S+ti+à+ná+V+á) = Kamba, Embu, Mwimbi AAAA.6b
(S+ti+á:+V+á) = Mwimbi AAAA.6c(S+ti+râ:+V+á). The overlap is
due to the presence of alternates (in Mwimbi certainly due to
influence from other dialects) in Embu and Mwimbi.
14. Kikuyu, Kamba, Embu AAAA.6f(S+ti+nà+V+á) = Mwimbi AAAA.6g(S+tâ:+V+á)
15. Kikuyu, Embu AAAA.6h(S+ti+râ:+V+á) = Kamba, Embu, Mwimbi AAAA.6i
(S+ti+kũ+V+á) - note overlap.
16. Mwimbi AAAB.1b(S+ngí+râ:+V+irè) = Kikuyu, Embu AAAB.1c(S+ngí+V+irè)
17. Mwimbi AAAB.2b(S+ti+ngí+râ:+V+irè) = Kikuyu, Embu AAAB.2c
(S+ti+ngí+V+irè)
18. Mwimbi AAAB.6d(S+ti+ngí+V+á) = Kikuyu, Embu AAAB.6e(S+ti+ngí+kà:+V+á)
19. Embu ABAA.1a (S+kí+V+á) = Kikuyu ABAA.1b(S+râ:+V+á) = Kamba,
Mwimbi ABAA.1c (S+á+V+á)
20. Kamba ABAA.1c(S+á+V+á) = Kikuyu, Embu, Mwimbi ABAA.1a(S+kí+V+á)
21. Kamba ABAA.1a(S+kí+V+á) = Kamba ABAA.1e(S+i+V+á) = Kikuyu, Embu,
Mwimbi ABAA.1f(S+V+á) = Mwimbi ABAA.1g(S+V+á)
22. Mwimbi ACDA.3b(S+râ:+V+á) = Kamba ACDA.3c(S+nâ:+V+á)
23. Kamba ACDA.3f(S+i+V+á) = Kikuyu, Kamba, Embu, Mwimbi ACDA.3e(S+kí+V+á)
24. Kikuyu ACDA.3g(S+râ:+V+á) = Kikuyu, Embu, Mwimbi ACDA.3h(S+kũ+V+á)
25. Kikuyu, Embu BAAA.2b(S+ti+râ:+V-á+á) = Kamba BAAA.2c(S+ti+nâ:+V-á+á) =
Mwimbi BAAA.2a(S+ti+à+V-á+á)

26. The list could be further expanded, by specifying certain cases parallel to those included. This has seemed, however, unnecessary in the majority of cases.

Notes to Chapter VI:

1. The forms cited throughout this chapter are normally those found in Kikuyu, even when not Kikuyu but one of the other dialects is being discussed. As has been done in other chapters, if no Kikuyu form exists the Embu, Mwimbi, or Kamba form is given, in that order of preference.

CHAPTER VII: DEDUCTIONS FROM THE DATA

Section 1 : General

A. Introductory Remarks:

The preceding chapters constitute the analytic internally comparative description this study is intended to be. Together with the five appendices containing the construction inventories and discussion of pronominal prefixes, this comparison may be considered, within the limits set in the introduction, reasonably accurate and complete. It would be appropriate to close at this point. However, though such a comparison is in itself a valid and adequate study, it is not inappropriate to add to it. Though any scientific investigation is of value, it is reasonable to consider the uses to which it can be put, or the conclusions which can be drawn from it. In the pages to follow will be discussed some of the uses to which these data could be put, and some of the theories which could be based upon them immediately or indirectly.

Synchronic comparisons of other linguistic material have proven very useful for various purposes. Interpreted synchronically, on a statistical basis, they may serve as a measure of similarity or difference between the systems compared. In diachronic investigations, they may serve as evidence of the probable interrelationships among the members of the group, evidence as to the form of the equivalent system probably found in the hypothetical immediate common ancestor of the group, evidence as to the history (or more usually prehistory)

of the group's development and that of the individual systems, and evidence of the relationships between the group and other languages. Naturally in none of these areas should one rely upon such evidence alone, except when other evidence is lacking. It is not impossible for the recorded facts of a language's history to differ considerably from what seems the most reasonable conclusion from the data revealed by synchronic comparison. However, comparative investigations of lexical material, phonologies, and inflectional systems have in other cases been found to concur, on the whole, with recorded fact.

Within the Bantu linguistic family (and, indeed, specifically within Thagicũ) it has proven possible to find evidence for conclusions of the types described in data from lexical, phonologic, and, to a certain extent, nominal systems. Though non-linguistic data on these subjects are scanty and often uncertain, these and the data from areas of the linguistic systems such as lexicon and phonology do in many cases corroborate one another.

It therefore seems reasonable to expect that this study, as a synchronic analytic internal comparison of yet another area of the linguistic systems involved, would yield equally valid and potentially valuable evidence for such conclusions. The type of comparison is the same, the dialects compared are ones in which data from other linguistic subsystems forming an apparently solid basis for conclusions have been found. This adds to the desirability of drawing such conclusions. Some probability would seem to exist that these would not only corroborate conclusions drawn earlier, but also allow to some

extent expansion and correction of such conclusions.

B. Order of Presentation :

In this chapter there will first be presented an examination of the extent to which the data presented shed light upon the degrees of similarity and dissimilarity existing between dialects. This synchronic application will involve much statistical manipulation of the data, as one can hardly expect to arrive at valid conclusions without to some extent weighting the evidence to allow for the greater importance of certain features. Most of the discussion will be based upon the numbers of shared unities, but a portion will be devoted to examination of the results attained by inspection of the data on points of difference.

It is necessary to present such synchronic conclusions before going on to examine possibilities of diachronic, as the latter must to some extent be based upon the former. Diachronic conclusions as to the interrelationships of the dialects, the system found in their immediate common ancestor, the development from that system to those found in the present dialects, the relationship between Thagicú and neighbouring languages, and the light shed by the verbal systems of neighbouring languages upon the development of the Thagicú systems, will be discussed in that order.

Section 2 : Synchronic Conclusions

A. Checks upon Validity :

In the use of the data for investigation of similarity between dialects one is hampered by the need first to decide which of the data

are in fact significant. To choose to treat as relevant the wrong set of data could give an entirely incorrect impression of the degree of interdialectal similarity. Fortunately, there exists extralinguistic evidence which can serve as a rough check upon the validity of the results.

It has already been stated that the dialects are mutually intelligible. They are also close enough geographically so that speakers of one will normally have had opportunity to observe the linguistic peculiarities of the other three dialects. From statements made by speakers of the dialects, it appears that Mwimbi is the dialect least easily understood by speakers of the other three, and Embu the dialect most easily understood. A Kikuyu speaker and an Embu speaker have the least trouble understanding one another, and the greatest difficulty probably occurs with a Kamba speaker trying to understand a speaker of Mwimbi. It should be noted that, on the other hand, a Mwimbi speaker (in spite of observations to the effect that "the Kamba talk like children") has less trouble understanding Kamba than he does Kikuyu.

Such indications of degree of intelligibility are far from precise, but constitute some indication of overall degree of interdialectal similarity. They are of rather greater value than similar conclusions based upon unweighted statistics. However unscientifically arrived at his conclusions, a native speaker is in a far better position than a linguist to make allowances for frequency of points of similarity or dissimilarity. He can discount points which, though apparently of great significance, are minor and go unnoticed in practical communication,

and can emphasize seemingly small differences which in fact constitute important obstacles to understanding. Since this is so, and since the inflectional systems of the Thagicũ verb are far from uncomplicated, and the morphemes and constructions involved are mostly quite frequent in occurrence in normal speech, one might expect that the degree of similarity of the verbal systems would have considerable importance in the degree of similarity between the complete linguistic systems. One cannot, of course, expect that the similarity between verbal systems will necessarily be identical with that between the dialects as a whole. However, one might expect that one or more of the statistical calculations which can be based on the verbal data would yield results which could to some extent be related to the apparent degree of mutual intelligibility. It is not unreasonable to reject tentative calculations of degree of similarity which show the opposite of the known degree of intelligibility as based upon stressing actually unimportant factors.

B. Conclusions from Numbers of Unities Shared :

It would be pointless to attempt to base discussion of points of similarity upon the numbers of constructions listed in the appendices. It has been shown in presenting the inventory of endosyntactic unities that in many cases items differentiated in the construction inventories are in fact structurally the same item, and in others items linked in the construction inventories are structurally distinct. These calculations must be based rather upon shared endosyntactic unities, and upon the percentages of the unities in which a particular dialect

is included which it shares with other dialects. When the various series of marginal constructions, the relatives, copulars, and absolute conditionals, are eliminated¹, the number of unities in which each dialect is included is as follows:

	Kik.	Kam.	Emb.	Mwi.	Average	Total of unities
Regular :	68	43	68	54	58.25	103
Habitual:	29	19	31	20	24.75	39
Total :	97	62	99	74	83	142

It is clear from these figures that the number of unities shared by all four dialects cannot be more than the number of unities in which Kamba participates : 43 with regular stems, 19 with habitual, or 62 in all. Even this figure, however, is not reached. The following table gives the number of unities shared by each group of dialects and peculiar to each. The set of figures to the left represents the unities shared by each dialect of group and no other; the cumulative figures on the right show the number shared by that dialect or group in total:

	Regular	Habitual	Total	Regular	Habitual	Total
Kik.-Kam.-Emb.-Mwi.:	22	12	34	22	12	34
Kik.-Kam.-Emb.- : 2		1	3	24	13	37
Kik.-Kam.- -Mwi. : 2		1	3	24	13	37
Kik.- -Emb.-Mwi. : 12		3	15	34	15	49
-Kam.-Emb.-Mwi. : 3		0	3	25	12	37

	Regular	Habitual	Total	Regular	Habitual	Total
Kik.-Kam.- = :	1	2	3	27	16	43
Kik.- -Emb.- :	21	9	30	57	25	82
Kik.- - -Mwi.:	0	0	0	36	16	52
-Kam.-Emb.- :	0	0	0	27	13	40
-Kam.- -Mwi.:	1	1	2	28	14	42
- - -Emb.-Mwi.:	3	2	5	40	17	57
<hr/>						
Kik.- - - :	8	1	9	68	29	97
-Kam.- - :	12	2	14	43	19	62
- - -Emb.- :	5	4	9	68	31	99
- - - -Mwi.:	11	1	12	54	20	74

The number of unities actually common to all four is little more than half the number theoretically possible, which itself is less than half the number of endosyntactic unities found in the four dialects. The number of unities peculiar to the pair Kikuyu-Embu is almost as large. Except in the case of Kamba and the Mwimbi habitual system, less than half the unities in any one dialect are shared with all three others. The percentage of the unities in each dialect found to be shared with all three others is to be found in the following table, together with the average of these percentages and the percentage of all unities common to all four dialects:

	Kikuyu	Kamba	Embu	Mwimbi	Average	% of Total
Regular :	32.3%	51.2%	32.3%	40.7%	39.1%	21.4%
Habitual:	41.3%	63.2%	38.7%	60.0%	50.8%	30.8%
Total :	35.1%	54.9%	34.3%	45.9%	42.6%	23.9%

In view of the known high degree of mutual intelligibility, these figures are surprisingly low. At the other extreme, the equivalent figures for percentages of unities peculiar to single dialects are given in the following table, again including averages and percentage

of the total number of endosyntactic unities:

	Kikuyu	Kamba	Embu	Mwimbi	Average	% of Total
Regular :	11.8%	27.9%	7.4%	20.4%	16.9%	34.9%
Habitual :	3.4%	10.5%	12.9%	5.0%	7.9%	20.5%
Total :	9.3%	22.6%	9.1%	16.2%	14.3%	30.9%

Note that of the total number of endosyntactic unities, except in the habitual system, the percentage represented by unities limited to a single dialect is greater than the percentage represented by unities shared by all four dialects. At the same time, except in the Kamba and Mwimbi regular systems, the percentages of the unities in single dialects represented by unities peculiar to the dialect are less than half the percentage of each dialect's unities shared with all three others.

From these figures it would appear that Kamba has the least in common with the others and Embu the most (except in the habitual system, where Embu has the least in common with others, Kikuyu the most). In fact, this disagrees with the known degree of mutual intelligibility, in that Mwimbi, not Kamba, should be expected to be lowest. The reversal here in the habitual system is most interesting. It is because of this and similar phenomena that the figures for the regular and habitual systems have been and will continue to be given separately, although clearly it is the totals which are important for overall similarity.

Despite the disagreement of the figures so far given with the known degrees of interdialectal intelligibility, the overall mutual

intelligibility of the group is easily accounted for by the fact that over 70% of the unities in each dialect are shared with at least one other dialect. Since in most cases less than 50% belongs to the common core, much of this intelligibility must be accounted for by unities shared by only two or three dialects. In the cumulative figures in the table on pages 180 and 181, only the group Kikuyu-Embu-Mwimbi, of the groups of three, shows a significant increase over the number of unities shared by all four. In the figures on pairs of dialects, only Kikuyu-Embu, Kikuyu-Mwimbi, and Embu-Mwimbi reach a total of more than fifty, pairs including Kamba all totalling less than 45 shared unities. The following table shows the percentage of the unities in each dialect which it shares with each combination. Again, the figures on the left are those for the unities peculiar to the group in question, the figures on the right represent the cumulative total for unities shared by the group:

	Regular	Habitual	Total	Regular	Habitual	Total
Kikuyu & Kam.-Emb.-Mwi.:	32.3%	41.3%	35.1%	32.3%	41.3%	35.1%
" & Kam.-Emb.- : 2.9%		3.4%	3.1%	35.3%	44.8%	38.1%
" & Kam.- -Mwi.: 2.9%		3.4%	3.1%	35.3%	44.8%	38.1%
" & -Emb.-Mwi.: 17.6%		10.3%	15.5%	50.0%	51.7%	50.5%
" & any two others: 23.5%		17.2%	21.6%	55.9%	58.6%	56.7%
" & Kam.- - : 1.5%		6.9%	3.1%	39.6%	55.2%	44.3%
" & -Emb.- : 30.9%		31.0%	30.9%	83.8%	86.2%	84.5%
" & - -Mwi.: 0.0%		0.0%	0.0%	52.9%	55.2%	53.6%
" & any other : 32.3%		37.9%	34.0%	88.2%	96.6%	90.7%
" alone : 11.8%		3.4%	9.3%	100.0%	100.0%	100.0%

	Regular	Habitual	Total	Regular	Habitual	Total
Kamba & Kik.-Emb.-Mwi.:	51.2%	63.2%	54.9%	51.2%	63.2%	54.9%
" & Kik.-Emb.- : 4.7%	4.7%	5.3%	4.8%	55.8%	68.4%	59.7%
" & Kik.- -Mwi. : 4.7%	4.7%	5.3%	4.8%	55.8%	68.4%	59.7%
" & -Emb.-Mwi. : 6.9%	6.9%	0.0%	4.8%	58.1%	63.2%	59.7%
" & <u>any two others</u> : 16.3%	16.3%	10.5%	14.5%	67.4%	73.7%	69.4%
" & Kik.- - : 2.3%	2.3%	10.5%	4.8%	62.8%	84.2%	69.4%
" & -Emb.- : 0.0%	0.0%	0.0%	0.0%	62.8%	68.4%	64.5%
" & - -Mwi. : 2.3%	2.3%	5.3%	3.2%	65.1%	73.7%	67.8%
" & <u>any other</u> : 4.7%	4.7%	15.8%	8.1%	72.1%	89.5%	77.4%
" alone : 27.9%	27.9%	10.5%	22.6%	100.0%	100.0%	100.0%
Embu & Kik.-Kam.-Mwi.:	32.3%	38.7%	34.3%	32.3%	38.7%	34.3%
" & Kik.-Kam.- : 2.9%	2.9%	3.2%	3.0%	35.3%	41.9%	37.4%
" & Kik.- -Mwi. : 17.6%	17.6%	9.7%	15.2%	50.0%	48.4%	49.5%
" & -Kam.-Mwi. : 4.4%	4.4%	0.0%	3.0%	36.8%	38.7%	37.4%
" & <u>any two others</u> : 25.0%	25.0%	12.9%	21.2%	57.4%	51.6%	55.6%
" & Kik.- - : 30.9%	30.9%	29.0%	30.3%	83.8%	80.6%	82.8%
" & -Kam.- : 0.0%	0.0%	0.0%	0.0%	39.6%	41.9%	40.4%
" & - -Mwi. : 4.4%	4.4%	6.5%	5.1%	58.8%	54.8%	57.6%
" & <u>any other</u> : 35.3%	35.3%	35.5%	35.4%	92.6%	87.1%	90.9%
" alone : 7.4%	7.4%	12.9%	9.1%	100.0%	100.0%	100.0%
Mwimbi & Kik.-Kam.-Emb.:	40.7%	60.0%	45.9%	40.7%	60.0%	45.9%
" & Kik.-Kam.- : 3.7%	3.7%	5.0%	4.1%	44.4%	65.0%	50.0%
" & Kik.- -Emb. : 22.2%	22.2%	15.0%	20.3%	62.9%	75.0%	66.2%
" & -Kam.-Emb. : 5.6%	5.6%	0.0%	4.1%	46.3%	60.0%	50.0%
" & <u>any two others</u> : 31.5%	31.5%	20.0%	28.4%	72.2%	80.0%	74.3%
" & Kik.- - : 0.0%	0.0%	0.0%	0.0%	66.7%	80.0%	70.3%
" & -Kam.- : 1.9%	1.9%	5.0%	2.7%	51.9%	70.0%	56.8%
" & - -Emb. : 5.6%	5.6%	10.0%	6.8%	74.1%	85.0%	77.1%
" & <u>any other</u> : 7.4%	7.4%	15.0%	9.5%	79.6%	95.0%	83.8%
" alone : 20.4%	20.4%	5.0%	16.2%	100.0%	100.0%	100.0%

If one looks at the cumulative percentages for each pair of dialects, considering only the figures for the total systems, one sees that the percentage is higher than 60% only in the following cases:

Kikuyu-Embu (84.5%), Kamba-Kikuyu (69.4%), Kamba-Embu (64.5%), Kamba-Mwimbi (67.8%), Embu-Kikuyu (82.8%), Mwimbi-Kikuyu (70.3%), and Mwimbi-Embu (77.1%). Of these the lowest and highest are Kamba-Embu and Kikuyu-Embu, respectively. Only for Kamba, it will be noted, are all three percentages higher than 60%. Taken in itself this would seem to indicate that while Kikuyu and Embu constitute the pair with the highest capacity for mutual understanding, Kamba is the dialect most likely to be understood by all the others. Embu should be the dialect most difficult for a Kamba speaker to understand, and Mwimbi the easiest. While Mwimbi would be most easily understood by an Embu speaker, a Mwimbi speaker would most readily understand Kamba. These and similar conclusions based on the above figures seem perfectly reasonable in themselves, but do not at all agree with the known facts of intelligibility.

Although a very close bond between Kikuyu and Embu certainly exists, it is by no means as great as the figures seem to show. The figures seem to show a subdivision, on the basis of intelligibility, between Kikuyu-Embu and Kamba-Mwimbi, while data from other sources uniformly point to a distinction between Kikuyu-Kamba-Embu and Mwimbi. In Kikuyu and Embu the percentages shared with only one dialect are greater than the percentages of unities shared with two others, and in Embu are even greater than those for unities shared with all three. In Kamba and Mwimbi this is not the case. Percentages for pairs are smaller than percentages for groups of three, which are in turn smaller than those for unities shared by the group as a whole. As one might

expect, the difference is largely due to unities shared by Kikuyu and Embu alone. An imbalance of some sort clearly exists. If this imbalance could be isolated and eliminated, the conclusions might then agree more closely with those to be drawn from other areas in the dialects and from known degrees of mutual intelligibility.

Investigations show that the greatest portion of the resemblance between Kikuyu and Embu, or rather the great difference between those two and the others, lies in the conditional systems of those two dialects. Conditionals are lacking in Kamba and but few are found in Mwimbi compared to the numbers in Kikuyu and Embu. If these were eliminated, the resultant figures might better represent the facts of intelligibility.

Before making such revised calculations, one must decide whether such manipulation is justifiable. In a sense one is altering the data to suit preconceptions, a practice highly suspect in scientific investigations. Here, however, there is more justification than the simple expectation of more satisfying conclusions. Even in Kikuyu and Embu conditionals are rarely used and of less importance than they appear to be. They do not constitute any great obstacle to intelligibility, therefore. In Mwimbi, especially, though conditionals are rare in that dialect, there would be no problem in understanding any of the Kikuyu or Embu conditionals. Most conditionals differ only in the presence of -ngĩ- and its associated function/meaning from equivalent indicatives, and hence a Mwimbi speaker, familiar with both that element and the function of the equivalent indicative

unity, can readily predict the function of any conditional unity, even if it is missing in Mwimbi. Further, in their formal and functional relationship to indicative constructions, conditionals resemble the relative, copular, absolute conditional and marginal series already omitted from the calculations. If all these sets were considered, even the high degree of similarity between Kikuyu and Embu would not be apparent, and concurrence of the percentages of shared unities with the known mutual intelligibility would be impossible. If all are omitted, a greater degree of concurrence may result. Weighting on the bases of frequency, predictability, and other factors must occur in the judgement of intelligibility by the native, and should not be prohibited here.

If conditionals are omitted, the following table of numbers of unities peculiar to and totals shared by each group results. Again cumulative totals are given at the right. These should be compared with the figures given earlier:

	Regular	Habitual	Total	Regular	Habitual	Total
<u>Kik.-Kam.-Emb.-Mwi.:</u>	22	12	34	22	12	34
Kik.-Kam.-Emb.- : 2		1	3	24	13	37
Kik.-Kam.- -Mwi.:	2	1	3	24	13	37
Kik.- -Emb.-Mwi.:	6	3	9	28	15	43
-Kam.-Emb.-Mwi.:	3	0	3	25	12	37
Kik.-Kam.- - : 1		2	3	27	16	43
Kik.- -Emb.- : 5		1	6	35	17	52
Kik.- - -Mwi.:	0	0	0	30	16	46
-Kam.-Emb.- : 0		0	0	27	13	40
-Kam.- -Mwi.:	1	1	2	28	14	42
- -Emb.-Mwi.:	3	2	5	34	17	51

	Regular	Habitual	Total	Regular	Habitual	Total
Kik.- - - : 8	1	9	46	21	67	
-Kam.- - : 12	2	14	43	19	62	
- -Emb.- : 5	4	9	46	23	69	
- - -Mwi.: 10	1	11	47	20	67	

The Kamba is unchanged, and the Mwimbi only slightly altered, but both Kikuyu and Embu show marked reductions. The modified percentages are given in the table below, the arrangement being the same as the previous table on page 183:

	Regular	Habitual	Total	Regular	Habitual	Total
Kikuyu & Kam.-Emb.-Mwi.: 47.8%	57.1%	50.7%	47.8%	57.1%	50.7%	
" & Kam.-Emb.- : 4.3%	4.8%	4.5%	52.2%	61.9%	55.2%	
" & Kam.- -Mwi.: 4.3%	4.8%	4.5%	52.2%	61.9%	55.2%	
" & -Emb.-Mwi.: 13.0%	14.3%	13.4%	60.9%	71.4%	64.2%	
" & any two others: 21.7%	23.8%	22.4%	69.6%	80.9%	73.1%	
" & Kam.- - : 2.2%	9.5%	4.5%	58.7%	76.4%	64.2%	
" & -Emb.- : 10.9%	4.8%	8.9%	76.1%	80.9%	77.6%	
" & - -Mwi.: 0.0%	0.0%	0.0%	65.2%	76.4%	68.7%	
" & any other : 13.0%	14.3%	13.4%	82.6%	95.2%	86.6%	
" alone : 17.4%	4.8%	13.4%	100.0%	100.0%	100.0%	
Kamba & Kik.-Emb.-Mwi.: 51.2%	63.2%	54.9%	51.2%	63.2%	54.9%	
" & Kik.-Emb.- : 4.7%	5.3%	4.8%	55.8%	68.4%	59.7%	
" & Kik.- -Mwi.: 4.7%	5.3%	4.8%	55.8%	68.4%	59.7%	
" & -Emb.-Mwi.: 6.9%	0.0%	4.8%	58.1%	63.2%	59.7%	
" & any two others: 16.3%	10.5%	14.5%	67.4%	73.7%	69.4%	
" & Kik.- - : 2.3%	10.5%	4.8%	62.8%	84.2%	69.4%	
" & -Emb.- : 0.0%	0.0%	0.0%	62.8%	68.4%	64.5%	
" & - -Mwi.: 2.3%	5.3%	3.2%	65.1%	73.7%	67.8%	
" & any other : 4.7%	15.8%	8.1%	72.1%	89.5%	77.4%	
" alone : 27.9%	10.5%	22.6%	100.0%	100.0%	100.0%	

		Regular	Habitual	Total	Regular	Habitual	Total
Embu	& Kik.-Kam.-Mwi.:	47.8%	52.2%	49.3%	47.8%	52.2%	49.3%
"	& Kik.-Kam.-	4.3%	4.3%	4.3%	52.2%	56.5%	53.6%
"	& Kik.-Mwi.:	13.0%	13.0%	13.0%	60.9%	65.2%	62.9%
"	& -Kam.-Mwi.:	6.5%	0.0%	4.3%	54.3%	52.2%	53.6%
"	& any two others:	23.9%	17.4%	21.7%	71.7%	69.6%	71.0%
"	& Kik.-	10.9%	4.3%	8.7%	76.1%	73.9%	75.4%
"	& -Kam.-	0.0%	0.0%	0.0%	58.7%	56.5%	57.9%
"	& -Mwi.:	6.5%	8.7%	7.2%	73.9%	73.9%	73.9%
"	& any other	17.4%	13.0%	15.9%	89.1%	82.6%	86.9%
"	alone	10.9%	17.4%	13.0%	100.0%	100.0%	100.0%
Mwimbi	& Kik.-Kam.-Emb.:	46.8%	60.0%	50.7%	46.8%	60.0%	50.7%
"	& Kik.-Kam.-	4.3%	5.0%	4.5%	51.1%	65.0%	55.2%
"	& Kik.-Emb.:	12.8%	15.0%	13.4%	59.6%	75.0%	64.2%
"	& -Kam.-Emb.:	6.4%	0.0%	4.5%	53.2%	60.0%	55.2%
"	& any two others:	23.4%	20.0%	22.4%	70.2%	80.0%	73.1%
"	& Kik.-	0.0%	0.0%	0.0%	63.8%	80.0%	68.7%
"	& -Kam.-	2.1%	5.0%	2.9%	59.6%	70.0%	62.7%
"	& -Emb.:	6.4%	10.0%	7.5%	72.3%	85.0%	76.1%
"	& any other	8.5%	15.0%	10.4%	78.7%	95.0%	83.6%
"	alone	21.3%	5.0%	16.4%	100.0%	100.0%	100.0%

Once again the pair with the lowest percentage of shared unities is Embu-Kamba, the pair with the highest Kikuyu-Embu. Instead of a difference of 42 unities between the numbers shared by these dialects, however, the difference is only 12. Other figures are similarly adjusted, differences being not obliterated, but evened out, giving a much clearer indication of the actual uniform degree of overall similarity. Over 77% of the unities in any dialect are shared with at least one other. This is unchanged, since Kamba, where no conditionals exist, is the dialect showing the lowest figures in both cases. In only

one case (Embu-Kamba) is the percentage of unities shared with one dialect lower than 60%. The highest such figure, Kikuyu-Embu, is 77.6%, which is far closer to the 57.9% of Embu-Kamba than were the 84.5% and 40.4% found in the original set of percentages. Removal of the conditionals from the calculations has thus revealed a far greater degree of uniformity than appeared to be the case, and therefore results in greater conformity to known facts. In these figures it is the case in all dialects, not only Kamba and Mwimbi, that the percentage of unities shared with one dialect is smaller than the percentage shared with two, which is in turn smaller than that shared with three.

This being so, one should expect correspondingly greater approximation to the known degrees of mutual intelligibility in the above figures. From these figures one could conclude that Embu is the dialect most likely to be understood by speakers of Kikuyu and Mwimbi, while Kikuyu is the dialect most likely to be intelligible to a speaker of Kamba or Embu. The following table shows the order of degree of probable intelligibility for the various combinations of two dialects, the first named being the dialect of the speaker, the second that of the audience, ordering being based on percentage of correspondences:

1. Kikuyu-Embu (77.6%)	7. Mwimbi-Kikuyu (68.7%)
2. Mwimbi-Embu (76.1%)	8. Kamba-Mwimbi (67.8%)
3. Embu-Kikuyu (75.4%)	9. Kamba-Embu (64.5%)
4. Embu-Mwimbi (73.9%)	10. Kikuyu-Kamba (64.2%)
5. Kamba-Kikuyu (69.4%)	11. Mwimbi-Kamba (62.7%)
6. Kikuyu-Mwimbi (68.7%)	12. Embu-Kamba (57.9%)

The following table gives the ordering for mutual intelligibility,

based upon the lower of the two percentages for each pair. The order based upon the average is identical. While the ordering based upon the higher of the two differs, it would not be valid to take the higher as the basis, as it is the lower which determines the mutual intelligibility of the pair:

- | | | | |
|------------------|--------------|-----------------|--------------|
| 1. Kikuyu-Embu | (77.6/75.4%) | 4. Kikuyu-Kamba | (64.2/69.4%) |
| 2. Embu-Mwimbi | (73.9/76.1%) | 5. Kamba-Mwimbi | (67.8/62.7%) |
| 3. Kikuyu-Mwimbi | (68.7/68.7%) | 6. Kamba-Embu | (64.5/57.9%) |

While these still do not coincide exactly with the statements as to overall mutual intelligibility, there is no reason to expect further distortion such as that caused by inclusion of conditionals. It is true that Kamba, not Mwimbi, still is represented as the dialect least likely to be understood by the other three. However, there is no reason why the discrepancy should not be due to the differentiation between Mwimbi and Southern Thagicú^v in lexicon, for example. It is in no way impossible that these figures represent the actual degrees of intelligibility of the verbal systems, even though differing from the degrees of intelligibility of other systems and from the degrees of intelligibility of the dialects as complete linguistic systems.

It is surprising, in view of the high degree of mutual intelligibility, that the core of unities common to the four dialects is so small. Even with omission of conditionals, relatives, copulars, and marginal series, only about 50% of the unities in each dialect are shared by all three others. Though about 80% of each dialect's unities are shared by at least one other dialect, the 30% difference is to a very

large extent due to unities peculiar to pairs of dialects, rather than unities shared by all four or even groups of three.

As a general rule the habitual/continuative systems show greater similarity than the regular systems. The exception is Embu, where some of the percentages are smaller for the habituals than for the regular unities. Only in Embu, also, does the percentage of unities in the habitual system peculiar to the dialect exceed the percentage of such unities in the regular system. This is probably due not so much to greater difference in the habituals as to greater similarity in the regular system.

Needless to say, the figures are not and cannot be a direct measure of intelligibility or even degree of similarity. While the percentage of structurally identical constructions of course is a very important factor in determining degree of similarity or intelligibility between verbal systems, there are many other factors to consider. The degree of phonetic (as opposed to phonologic) resemblance of the constructions, the similarity of the inventories of verb stems, details of function and distribution of constructions, the number of cases of formally similar but structurally distinct items, relative frequencies in different contexts, the possibility of analogic interpretation (correct or incorrect) of constructions not shared, and other factors such as the aptitude of the listener for recognizing similarities between superficially different items, must all be taken into consideration.

The only factor, however, which can at this point be measured

with some degree of accuracy is the numbers and percentages of shared unities. It would, no doubt, be possible to attain a yet closer approximation to the known degree of overall mutual intelligibility, by further manipulation of the data. Even allowing Kamba forms with prefix -na:- to count as belonging to unities with prefixed -ra:- in other dialects would result in a much closer approximation. Such alterations of the basic figures could in various ways be justified, and in fact, the example given is one in which the formal difference probably has little effect upon communication. However, it does not seem wise to make such alterations. The majority of the factors governing mutual intelligibility cannot be measured even approximately. It is certain that the similarity of the verbal systems is only a part of the overall similarity of the dialects, on which the known degrees of intelligibility are based. It would therefore be wrong to alter those figures which can be measured more than has been done. The omissions already made almost certainly are valid, justifiable revisions weighting the data to correspond more realistically to the facts. Any other modifications are far less certain. While some are, no doubt, justifiable, others (especially in the absence of data on other factors contributing to intelligibility) might in fact give an incorrect impression of the actual degrees of similarity.

C. Conclusions from Points of Dissimilarity :

It is reasonable, in drawing conclusions from the degrees of resemblance between dialects, to investigate the extent to which the numbers of points of difference between dialects corroborate the evidence

of the points of similarity. It could happen that the two would to some extent cancel one another. Embu and Kikuyu show the greatest number of shared unities. If, however, the two also showed the greatest number of differences from one another, it would be reasonable to suspect that both facts result not from any greater degree of resemblance or difference, but rather from the greater number of constructions included in the two systems.

Of the four dialects, Kamba has the largest number of unities peculiar to itself : 12 regular, 2 habitual, 14 in all. Kikuyu and Embu have totals of nine, Kikuyu having eight regular and one habitual, Embu five regular and four habitual. Mwimbi has a total of eleven, ten regular and one habitual.

The differences listed in Chapter VI are not presented in a way which facilitates measurement of degree of difference. However, the greatest number of points of difference seem to be in Kamba, followed by Mwimbi, Kikuyu, and Embu in descending order. Here of the combinations Kikuyu and Embu show the most frequent agreement between themselves and disagreement with the others, followed by the pair Kamba and Mwimbi.

The evidence of the points of disagreement seems to corroborate, on the whole, that of the shared endosyntactic unities. This in turn tends to confirm the validity of the conclusions in B.; it must not, however, be forgotten that other factors might increase the similarity, and proper weighting minimize the effect of certain points of difference or similarity.

Section 3 : Diachronic Conclusions

A. Internal :

The figures in Section 2 were interpreted synchronically. They may also be applied diachronically, as synchronic similarity results from and may reveal the course of historic development and degrees of historical interrelationship. When, however, one attempts such interpretations, the conclusions do not agree with those based on other sections of the dialects.

It is clear, from reconstructed phonologic histories, as well as from lexical isoglosses, that the Southern dialects, Kikuyu, Kamba, and Embu, are more closely interrelated than any one of them is with Mwimbi or one of the other Northern Thagicũ dialects. Data from the verbal systems, however, point to two possible groupings, neither of which separates Mwimbi from the Southern dialects. Of the groups of three dialects, only Kikuyu-Embu-Mwimbi shows a greater number of correspondences than the other three, and to confirm this Kamba shows the greatest number of unities peculiar to one dialect. An alternative grouping would link Kikuyu with Embu and Kamba with Mwimbi. The grouping established on the bases of phonology and lexicon is not confirmed by the statistical evidence of the verbal system.

On closer inspection, it appears that the degrees of similarity established in the preceding section agree to a large extent with the geographic situation. Kikuyu most resembles Embu, less Mwimbi, and least Kamba. Kamba is closest to Kikuyu, furthest from Embu, Mwimbi being approximately in the middle. Embu is almost as close to

Mwimbi as to Kikuyu, and least like Kamba. Mwimbi is most similar to Embu, next to Kikuyu, and least like Kamba. With the possible exception of the position of Kamba, which, as stated earlier, could probably be corrected if adequate data on weighting factors were available, the linguistic differences agree surprisingly closely with the geographical distances (as do data on mutual intelligibility within the group generally). When not only the statistics but the actual degrees of mutual intelligibility, and not only the actual distances but the degrees of difficulty of contact between the various tribes, are considered, the correspondence becomes close to exact.

It therefore seems unwise to place too much weight upon these data in investigating historical interrelationships. There is, of course, no reason why genetic linguistic relationships should not correspond to (and in fact be derived from) their physical relationships. But similarities between even unrelated languages can arise through contact, and the greater the degree of contact between speakers of two related dialects, the greater the chance that they will come to resemble one another more closely than would the same dialects if geographically separated. When linguistic evidence points to a set of interrelationships which corresponds rather precisely to the geographic situation, it is not impossible that the linguistic situation has been in some way determined by the geographic situation. When, as here, there also exists linguistic evidence from other sources which points toward a set of interrelationships which does not to so great an extent agree with the geography, it seems reasonable to suspect

the validity of the first set of hypothetical interrelationships. In such cases, and specifically here, the probability seems greater that the similarities corresponding to geographical factors may be a later development, geographically conditioned, while the other may more accurately represent the historical sequence of dialectal splits and mergers.

Of course, conclusions as to interrelationship need not be based on purely statistical evidence. Only certain of the correspondences can be significant, and with knowledge of these one could more satisfactorily trace events. However, it is impossible to determine, simply from inspection of the data, which correspondences are more important. One could take the correspondences which coincide with the divisions established on phonologic and lexical grounds. This, however, does not yield very satisfactory results. Only three unities on the endosyntactic level are shared by Kikuyu-Kamba-Embu but not by Mwimbi. Of these two must be considered a single isogloss, as one is the absolute equivalent of the other (AAAA.6f-ACDA.4a : Ś+ti+nà+V+à - Ś+tá+nà+V+à). The number is thus reduced to two - hardly a significant number. The results of consideration of unities common to two dialects other than Mwimbi are less encouraging. Besides the existence of reductions similar to that just shown, the evidence here tends rather to confirm the Kikuyu-Embu/Kamba-Mwimbi division than the Kikuyu-Kamba-Embu/Mwimbi.

It is true that the negative prefixes distinguish Mwimbi from the other three. While this is admittedly a highly significant feature,

there is some evidence that it is not shared with other Northern Thagicũ dialects. It is pointless to use as evidence of separation between a Northern dialect and the Southern group a feature not common to all of Northern Thagicũ, if one desires a solution agreeing with conclusions drawn from other evidence. There is the difference in frequency of use of ní with copular forms, but this is not only strictly outside the bounds of the systems studied, but also seems to be a feature where there is much variation in both Northern and Southern groups.

It is therefore unsafe to attempt to draw conclusions as to inter-dialectal relationships on the basis of the verbal evidence, with the techniques available. The evidence of the verbal systems not only disagrees with that of other systems, but also seems the less likely to be in accord with historical facts, because of its close agreement with the geographical situation. The few isoglosses which agree with the evidence of non-verbal systems are unconvincing, and often directly contradicted by other verbal evidence.

Partly because it is thus impossible in the data to find clear and credible evidence of interrelationship, it is impossible to make any definite statements as to the system probably found in the group's immediate common ancestor. It is of course possible to identify the common core of unities shared by all four dialects, but it would be unreasonable to identify this with the inventory of unities in the original system. There is no reason to suppose that all the unities in question in fact were present in Thagicũ before its division into

separate dialects. It also cannot be assumed that no construction not structurally identical with a unity shared by all four dialects could have been included in that inventory.

Further, it is possible that through loss, innovation, borrowing, or parallel development the original inventory has been altered in form and function to such an extent that some or all of the original unities might not be recognizable, by the standards set, as structurally identical with their descendants in the modern systems. To determine the origins of the various unities and systems, it is necessary to be able to some extent to reconstruct the development through time of the systems.

To do this, however, a knowledge of the dialectal interrelationships is almost indispensable. With such knowledge one can often determine the relative age of innovations from dialectal distribution. However, this knowledge, as stated, seems not to be available from the verbal systems. It is also difficult, if not impossible, to recognize probable innovations from internal evidence. In some cases it is possible to establish a probability of relationship between two formally or functionally separated items, but only rarely can one decide which of the two is the closer to the probable original.

The following are a few of the minor details which seem fairly probable :

1. The structurally equivalent -na:- of Kamba and -ra:- of the other dialects almost certainly have a common origin. The point in time of the differentiation, and its cause, are uncertain, as is the

original form. From its distribution and the phonology of Kamba, one would incline to consider it an innovation in Kamba dating from the time of the loss of an item corresponding regularly to r in the rest of Thagicũ. However, a similar correspondence of -ra:-/-la:- with -na:- occurs within the group of languages including Luhya, Luganda, and Runyoro, and it is possible that at least an alternation between the two forms was established before Thagicũ became a separate language. Again, while the predominance within Thagicũ makes the shift from r to n seem the more probable, a certain example of the opposite shift is the locative suffix -rĩ of Embu (compare Kikuyu -inĩ, Kamba and Mwimbi -nĩ, Swahili -nĩ, etc.).

2. The elements -i- and -ki- in Kamba may also have a historical connection. How the differentiation arose, if such is the case, is a question difficult to answer.

3. It is fairly obvious that at some point in Mwimbi the sequences -tĩ-a-, -tĩ-a:-, and -tĩ-ra:- merged to give -ta:-. The uniform correspondence of affirmatives with prefixed -ra:- to negatives in -ta:-, except in one case where the conditional prefix separates the two elements, is strong evidence for the merger. The presence of -tĩ-ra:- in AAAA.6c does not constitute an important obstacle. The construction in which this occurs is rare, and is used as an alternative to a preferred form in -ta:-. It is also probably foreign to Mwimbi, especially as the informant in whose speech it occurred was one who had spent much time outside Mwimbi territory and had consciously studied other Northern Thagicũ dialects.

4. Some possibility also exists of the merger in Mwimbi of -tĩ- and -tĩ-rĩ:-. Besides the formally parallel shift of -tĩ-ra:- to -ta:-, there is some evidence for this in the regular correspondence of affirmatives in -rĩ:- to negatives in -tĩ- in Mwimbi. This is, however, far less certain than the preceding shift.

Study of the development of the individual systems depends in part upon reconstruction of the original system, in part upon the inter-relationships between the present systems. Neither of these can be determined satisfactorily from the evidence of the verbal systems. Detailed description of the development is accordingly impossible. Study of the individual systems and their overall patterns in some cases reveals indications of the general direction of development. In some cases there exist clear indications of the nature and direction of a specific change. These cannot be related to one another to give an ordering of developments, but one must in any case indicate and describe them. As at this point one must rely to a large extent upon external comparison, with the verbal systems of neighbouring languages, this will be discussed in the following section.

B. External :

When one examines equivalent data from Bantu languages of the area other than Thagicũ, it appears highly probable that in Thagicũ, and especially Kikuyu, a great deal of analogic expansion of an originally simple system has taken place. Compared with Luhya, for example, the Kikuyu system allows expression and differentiation of a far wider range of semantic categories, with comparatively little periphrasis.

The high degree of formal and functional parallelism between subsystems in Kikuyu and, to a lesser degree, Thagicũ in general, is a further argument for such an expansion at some point in history.

It has been shown in Chapter V that certain prefixal elements occur in various series indicating temporal reference. The order of elements in progression from furthest past to furthest future seems fixed. An element may have past reference in one series and future reference in another, but the relationship of elements to one another in the temporal progression remains constant. Another series contains prefixes formally identical with those found in the temporal series. This series, however, has no temporal reference, but seems rather to indicate aspect.

Other languages of the area, such as Luhya and Gusii, have prefixal elements formally identical with many of those in the series described, but functionally significantly different. The Thagicũ dialects also show a rather greater number of temporal distinctions than do the neighbouring languages. One might conclude that at some point a reorganization took place in Thagicũ (probably over a considerable period of time), such that certain elements which had had a specific and restricted function/meaning, temporal or aspectual, increased their functional ranges on an analogic basis. This of course cannot be substantiated. Even if this hypothesis is assumed correct, one cannot determine with certainty what the original functions of the elements were. One can reasonably suspect that the past time reference of CC.1a, GE.6a, GE.7a and the structurally equivalent CE.10a arose

in this way. Constructions in other languages in the area, such as Luganda, Luhya, and Gusii, include formally identical elements but have, for the most part, present or future reference. The past reference, however, seems not to be paralleled. Such hypotheses must be tentative, because of the lack of structural identity of the morphologic unities involved, and the great semantic differences. Also, the analogy cannot be extended to all sets of formally identical morphologic unities, nor even to all members of the sets of formally identical unities in question.

Further evidence for analogic expansion is found in the negative systems. Except in the independent non-jussive indicative system, the consecutives, and the jussives, almost all negatives are formally and functionally equivalent to their affirmative equivalents. In certain cases where there is, for example, formal parallelism between a negative indicative and a negative conditional, the function of the conditional will be not a conditional equivalent of that of the negative indicative, but rather the negative equivalent of an affirmative conditional. If a negative conditional and negative indicative are parallel in function, it is often the case that the conditional will not be a conditional equivalent of the indicative in form, but rather again a negative equivalent of an affirmative conditional. Such negatives therefore seem likely to have been formed from the affirmative by analogy. This, combined with other internal and external evidence, seems to indicate a probability that the conditional and habitual systems, and those subsystems with final -ire (-ie) and -i:te, have

been areas of expansion. These are all areas where there is little parallelism with the Gusi and Luhya systems. The conditionals are suspicious even on internal grounds, being lacking in Kamba and few in Mwimbi, while in Kikuyu and Embu showing much formal and functional parallelism with the indicatives. Although one could in the case of the conditionals assume a great reduction in Kamba and Mwimbi, it remains highly probable that at some point augmentation of an originally small system took place.

It is in the independent non-jussive indicative systems of the dialects, with regular stems, that the affirmative and negative systems least resemble one another. It would seem not improbable that these systems form the core of each dialect's verbal system. At the same time, the dialectal differences indicate that here the greatest degree of divergent development took place. These two apparently conflicting suppositions can be reconciled if one assumes that the congruence in other subsystems is the result of parallel, perhaps mutually influenced, analogic, and hence regular, development, while the forms, functions, and inventories of unities in the basic independent non-jussive indicative system changed more slowly, diverging from an originally identical system. This is, on the whole, plausible, especially since the degree of similarity between individual dialects in verbal system seems to be determined largely by physical proximity. It is perhaps significant, in discussing, as above, the origin of the tense systems, to note that in all four dialects this core system, especially in the negative, includes formally identical constructions with temporal and atemporal reference.

The consecutive systems also show signs of analogic expansion in some dialects. The situation in Kikuyu, where the time divisions of the independent are paralleled almost exactly by those made in the consecutive, almost certainly did not exist in the immediate common ancestor of the four dialects. The formal parallelism with non-consecutive constructions is noteworthy. Of those consecutives which are not formally identical with jussives, only ABAA.1d (S+ka+V+a) is formally parallel to a consecutive construction known to me to exist in one of the East African languages other than Thagicũ. However, all formally identical constructions of pattern S+ka+V+a, or phonetic equivalent, found in Swahili and other languages, differ from this in function. The Thagicũ is used of actions simultaneous with that of the main verb, but the others seem equivalent in function to the Kamba construction included in ABAA.1c (S+a+V+a), being used as a general past consecutive used of actions performed after (sometimes as a result of) that of the main verb. The origins of the consecutive systems of Thagicũ are uncertain, but it is clear that they have little direct connection with consecutives elsewhere.

If one seeks to discover the external affiliations of the Thagicũ verbal systems, one meets with little better success than in other areas of diachronic investigation. The degree of similarity between Thagicũ and such languages as Luhya or Luganda is very slight. Gusii, though regarded in W. H. Whiteley's Tense System of Gusii (p.66 and elsewhere) as fairly closely similar to Kikuyu, has a verbal system which is in fact very different in its basis from that of Thagicũ.

Certain details of the system are in fact very similar to Thagicũ, but the overall pattern differs considerably. The inventory of elements, prefixal and suffixal, is probably closer to that of the Thagicũ dialects than is that of any of the other neighbouring languages. However, their functions differ considerably, and one cannot be certain that any connection exists.

Thagicũ does not have the easily analyzed system of Swahili. In that language there is very clear evidence of periphrastic origin of the majority of indicative constructions. Gusii, Chasu, and other Bantu languages show signs of such origin for a number of constructions, in that a large number of elements co-occur with what seem the basic tense-indicating morphemes, following them, and in some cases necessarily preceding an element suspiciously identical with the infinitive prefix. Thagicũ has some constructions that could be considered parallel (certain of the series of marginal constructions), but these are far rarer than the constructions in question in Gusii and elsewhere. There are no items which seem to be fixed composites including a fossilized auxiliary and an infinitive, such as occur elsewhere. Some Thagicũ constructions now periphrastic seem to be on the way to becoming what must be treated as a single structural word, it is true. In Kikuyu, for example, there is a series of constructions including the stem -cò:k-, which has the basic meaning 'return'. These constructions, which are usually used of actions performed after another by the same person, having the same basic function as the consecutives, are often slurred over by some Kikuyu speakers. One hears, for example, not ndacooka ndathĩĩ ' and I

went', but rather, very often, ndaca ndathiĩ. With but little further alteration -ca- could become fixed as a true inflectional element parallel to those already found in Kikuyu. The fact that such constructions might arise in future, however, hardly constitutes a link with languages where there is reason to believe such constructions have already arisen. Perhaps certain Thagicũ constructions might, on the basis of sufficient external evidence, prove to be the result of such a process. But this is not possible at the moment, nor does internal evidence support such a hypothesis. Of the East African languages on which data are available Sukuma seems to have the verbal system closest approximating that of Thagicũ. The resemblance, however, is neither very close nor based on very sound correspondences. It is typologically rather than structurally based: as in Thagicũ, a number of constructions exist, none showing clear signs of periphrastic origin. In details, there are probably very few correspondences which could qualify as structurally identical.

Even with the addition of external evidence, there are only a very few very vague conclusions which can be drawn from the data on the Thagicũ verbal systems regarded as a source for diachronic investigation. On the basis of internal evidence, one can point to a few probable mergers and phonetic shifts of elements. Otherwise, one can only theorize about the general direction of change. No clear picture of the dialects' relationships or the original verbal system of Thagicũ emerges. If other dialects had been included, better results might have been possible. However, this is unlikely, as the verbal

systems of other dialects seem comparable in inventory and degree of inter-dialectal similarity to those discussed herein.

By referring to external evidence one can with some degree of certainty identify probable innovations within Thagicũ. One cannot determine which are innovations differentiating Thagicũ from other Bantu languages and which innovations within given dialects of Thagicũ. Even with external evidence, one cannot satisfactorily decide the position of Thagicũ within the East African Bantu languages as a whole. If more detailed study of other languages on the same basis as that underlying this study were made, a clearer picture might result.

It seems probable, however, that, for whatever reason, one must confine oneself to phonologic and lexical evidence as a basis for historical investigations. Perhaps for other languages valid results might have been obtained from equivalent data. In Thagicũ, however, this seems impossible.

Notes to Chapter VII:

1. The elimination of these subsystems from the calculations may be justified by the fact that they are all equivalents of independent (or, in the case of marginal series, unaugmented) unities. This being the case, if the independent or unaugmented unity is shared, the corresponding unity from one of these subsystems will also normally be shared, and will at least be recognizable to speakers of another dialect.

CHAPTER VIII: SUMMARY AND CONCLUSION

Section 1 : Summary

A. Introduction :

The stated purpose of this thesis was to present an analytic internal comparison of the inflectional systems found in specified subsections of the verbal systems of the four Thagicú dialects Kikuyu, Kamba, Embu, and Mwimbi. Besides collection and presentation of data (many of which have not previously been published), it was necessary to establish a system of analysis which would, within the limits of possibility, permit indication of both similarities and differences without unduly obscuring either. This methodology had to eliminate subjectivity as far as possible, without becoming so rigorous as to obscure the facts. The principles and criteria upon which the largest portion of the analysis was based seem to have satisfied this requirement, in that the assignment of constructions and morphemes to structural unities was strict enough to minimize the element of subjectivity, yet flexible enough to allow reasonable representation of the facts. That the result does reasonably represent the situation can be shown by the fact that, in the course of statistical analysis, the percentages of shared endosyntactic unities could be taken to approximate the known degree of overall interdialectal similarity, as seen from the degree of mutual intelligibility. Had the analysis been too rigidly based, this would have been impossible, as many sets here recognized as structurally

identical would have been treated as separate. This would have altered the percentages of shared unities so much that any true approximation to the highly subjective facts of mutual intelligibility would have been impossible. At the same time, that the approximation is not perfect ought not to be taken to indicate the criteria should have been even less strict. Mutual intelligibility is necessarily based on the total correspondences between the dialects, weighted by frequency, degree of phonetic congruence, and many other factors. It therefore does not follow that a statistical, nearly unweighted, analysis of correspondences in a single subsystem must if correct inevitably correspond precisely to degree of mutual intelligibility.

B. Analysis :

On the basis of the criteria established the constructions listed in the construction inventories (Appendices I-IV) were analyzed and grouped into "endosyntactic unities", each being a set of constructions from different dialects found to satisfy the requirements set down for recognition of "structural identity". First the system with regular stems and then that found with habitual/continuative stems was presented. Forms and functions were stated briefly for each construction, but full details were given only where necessary for clarity. Detailed descriptions were made available, however, through constant cross-reference to the appropriate sections of the construction inventories, where full details were given.

This grouping was not done on a strictly rigorous basis. The

dialects are similar enough that constructions could be tentatively grouped into unities on a purely subjective basis. The results were then revised so as to satisfy the criteria laid down, and the final grouping represents the results of that revision. Had one proceeded more rigorously, one would in all probability have reached the same grouping in the end. However, the process would have been far more tedious and involved, and the necessary subjective decisions more difficult to reach. With a less closely knit group of dialects, the stricter method might well have been preferable, if not the only possible method. Here, however, it was not.

In part derived from the grouping of constructions into endo-syntactic unities was the subsequent grouping of elements into morphologic unities. The basis was the same, but the grouping was done in a rather more rigorous way. It would have been extremely difficult, if not impossible, to have attempted to establish the morphemes found in each dialect and thence set up morphologic unities. In cases where two constructions cannot be distinguished except with the aid of comparative evidence (as in the Mwimbi members of AAAA.6b and AAAA.6g, both of which are realized as S+tâ:+V+â; see GA.04d), morphologic analysis within a single dialect would yield but one morpheme, though two morphologic unities can be shown to be represented. Often grouping into morphologic unities separated items identical in form with possibly related function. It seemed best, however, to make such separations where doubt as to morphologic affiliation existed. Interestingly, except in one case in Kikuyu,

formally identical elements in the same dialect, even if directly contrasting in function or tone, normally affect neighbouring elements in exactly the same way. Throughout this discussion full cross-reference to the endosyntactic unities of which the morphologic unities were constituents was made.

The study could have been taken to be complete at this point, after presentation of structural unities and indication of the major differences. Indication of points of similarity automatically resulted from statement of structural identity. However, a chapter was devoted to pointing out further points of similarity which could not be indicated within the framework of the inventories of structural unities. Another brought together the points of difference, since when scattered throughout the inventories of structural unities they were decidedly underemphasized. Because of the nature of the material, these chapters were less systematic in presentation. It was necessary to include them, however, since there was a tendency in the positive approach of the systematic presentation of similarities to ignore some differences and similarities between actual structural unities, which could not easily be indicated within the framework established.

C. Deductions :

Finally, an attempt was made to investigate some possible synchronic and diachronic conclusions which could be drawn from the data. Synchronic statistical analysis yielded interesting results in the form of a rough indication of the degree of similarity

existing in the verbal systems of these dialects. Only a rough indication was possible, since all necessary weighting factors could not, on the evidence available, be considered. It was also found that, if conditionals and some other subsystems were omitted, to provide some weighting, the figures came to agree fairly closely with known degrees of mutual intelligibility. As stated above, this is some confirmation of the adequacy of the principles set up for purposes of the comparison.

The attempt to base diachronic conclusions upon the data was a failure, however. Some conclusions were possible, but except for minor details any hypotheses disagreed significantly from the picture of the history of Thagicú which can be based on phonologic and lexical data. The verbal systems show at least as close a resemblance to one another as do the other systems in question, but these similarities seem far more the result of contact between dialects after separation than of inheritance of features from the common ancestor.

External evidence adds little information. The verbal systems of neighbouring Bantu languages show very great differences from those of Thagicú. It would be interesting to make a comparison, like that presented here, between the verbal system of Thagicú and those of certain other East African languages, such as Gusii, Luhya, and so forth. One would expect that the inventory of endosyntactic unities common to more than one language would be much smaller than that found here. However, it would not be surprising if the results of

such a comparison showed a degree of similarity determined more by extent of inter-tribal contact than by degree of historical interrelationship. If this was the case even within the closely-knit Thagicũ group, it would be far more likely outside.

Section 2 : Conclusions

The failure of this study to produce evidence on which reasonable historical conclusions can be based does not in any way affect its validity. It is true that the most frequent reason for linguistic comparison is the aim to provide evidence for historical conclusions. However, there are other reasons for comparison, which have no connection whatsoever with historical investigation. The purpose of this comparison in particular was completely synchronic. It was desired that, as an analytic internal comparison, it should serve both as an indication of the degree of similarity existing between the verbal systems of the dialects and as an indication of the nature and extent of specific points of similarity and difference. Within the limitations of the restricted and sometimes doubtful data, it may be said to serve these purposes with satisfactory accuracy and adequacy.

The determination that in the four Thagicũ dialects there seems little or no possibility of verbal data corroborating the phonologic and lexical evidence in investigations of linguistic prehistory in itself is a contribution to the study of the group, if only a negative one. In addition, to make the comparison it was necessary to establish, specifically for this study, a technique for the

comparative investigation of verbal material. This seems to have been satisfactory, at least when applied to these specific verbal systems. It further involved collection and presentation of many previously unpublished data on these verbal systems; two of the dialects, Embu and Mwimbi, have not previously been treated in published descriptions. This may therefore be considered a contribution not only to the study of Thagicú, but also to the knowledge of Bantu languages in general.

APPENDIX I: KIKUYU CONSTRUCTION INVENTORY

Section 1 : Introductory

A. Sources:

Though neither the earliest nor perhaps the most often described of the four dialects, Kikuyu is probably the most thoroughly described and is certainly now the best-known. A. Ruffell Barlow's Studies in Kikuyu Grammar and Idiom (Edinburgh, 1960) originally appeared in 1914 and was revised in 1951. It is still probably the most accurate and authoritative grammar of any Thagicũ dialect, and I have consulted it extensively. Tonal data on Kikuyu first appeared in Liliias E. Armstrong's Phonetic and Tonal Structure of Kikuyu, Oxford, 1940 (since reprinted). Though far from complete and lacking any significant attempt to analyze the very complicated tonal system, this paved the way for future research. Besides the above works, Tonality in Kikuyu (an unpublished doctoral thesis by Lyndon Harries, a copy of which I obtained from Mr. T.G. Benson, a colleague, now retired, from the School of Oriental and African Studies, who has himself worked extensively with Kikuyu) and, to a lesser extent, A Short Kikuyu Grammar, by B. Mareka Gecaga and W.H. Kirkaldy-Willis, London, 1960, were consulted.

These, however, would not in themselves have been sufficient. Considerable gaps appear in the available tonal materials, and even the grammars do not in all cases adequately specify function/meaning. It also seemed important to ascertain to what extent the earlier descriptions differed from the Kikuyu in use at the present. Therefore, many of the

data on form and function are derived from my researches into the speech of Mr. Joseph Mũirũri Gĩthongo, an extremely good informant, whose language is representative of the Kiambu area.

My materials on Mr. Gĩthongo's speech include a large body of texts, as well as translations into Kikuyu of a questionnaire created specifically for the elicitation of verb forms and usages in Thagiũ. In addition, he was frequently consulted on dubious points. Most of the constructions listed are represented in materials obtained from Mr. Gĩthongo. Those that are not were included mainly on the evidence of Barlow's grammar, usually only where there existed apparent gaps in the symmetry of the system which they filled formally and functionally, and the probability of their existence seemed significant.

B. Presentation :

Though statements of usage and form apart from tone may usually be relied upon, statements of tone are in many cases far from certain. The primary reason is the nature and complexity of the Kikuyu tonal system. In most, if not all, cases it can be shown that the tones realized in Kikuyu in some way correspond to those realized in the other dialects. The relationship, however, is not simple. Even where such correspondence exists, the realized tones of Kikuyu may differ from, or be exactly opposite, the realization in the other dialect. In a complicated field like the verbal system this is especially true. Here there is not only the normal effect of surrounding basic tones, but also the effects of juncture, the intonational characteristics of the construction, and probably some equivalent of the unpredictable

down-stepping found in certain constructions in other dialects. The tones marked here are the closest approximations possible to the basic tones, indicated in a way as nearly comparable to the markings used in other dialects as possible. Much more investigation would be necessary before more than a few tonal patterns of those given here could be considered probably accurate. In some ways marking realized tones might have been more satisfactory, but these vary too much with context for this to be possible.

Section 2 : Inventory of Constituent Elements

A. Discussion :

The list which follows gives, without tonal marking, the elements found in the constructions listed, arranged in the order of their occurrence in the construction. Elements listed in the same section are mutually exclusive, and are arranged alphabetically. No attempt has been made to determine morphologic affiliation, since to determine this would require data resulting from analysis of the constructions. See Chapter IV. This listing indicates the formal elements found, their normal position in the construction, and their effects, if any, upon neighbouring units. Function and tone are omitted, both being variable and uncertain.

B. Elements Preceding the Subjective Prefix :

1. nd- : Always initial, this has no effect on neighbouring units.

C. Subjective Pronominal Prefixes :

1. S- : This is used to symbolize all subjective prefixes. The list will be discussed in Appendix V. These have no effect upon

neighbouring elements which cannot be predicted by regular phonologic rules.

D. Elements Immediately Following the Subjective Prefix :

1. -ta-: This is never initial, but never preceded by any element except the subjective prefix. If the Class A subjective prefix precedes immediately, it has the form i-. There are no other effects upon neighbouring units.

2. -ti- : When the Class A subjective prefix precedes, it has the form n-. There are no other external effects. The position is the same as that of -ta-.

E. Conditional Prefix :

1. -ngí- : This follows any of the above but precedes all other prefixes. The Class A subjective prefix has the form i- when it immediately precedes this element.

F. First Post-conditional Order :

1. -a- : The Class A subjective prefix when immediately preceding has the form nd-.

2. -ka- : The Class A subjective prefix has the form n-.

3. -ka:- : This is identical with 2. in behavior, except in length.

4. -kí- : The Class A subjective prefix is n-. Distinguish this from the prefix -kí- below, which immediately precedes the objective prefixes.

5. -kũ- : The Class A subjective prefix, if immediately preceding, takes the form n-. If preceded immediately by a prefix with vowel a, the vowel in question becomes e.

6. -ngo- : The Class A subjective prefix has the form i-. If the

following vowel is ĩ or ũ it is lowered to e or o.

7. -ra:- : An immediately preceding Class A subjective prefix has the form ndĩ-.

8. -rĩ:-/-ĩ:- : The two forms are undoubtedly variants of the same unit; the difference is in part conditioned by the subjective prefix and other factors. Functional difference is minimal, and in most environments these alternate freely. The Class A subjective prefix is ndĩ- with both.

9. -ro:- : The form an immediately preceding Class A subjective prefix takes is n-. A following ĩ or ũ becomes e or o.

G. Second Post-conditional Order :

1. -na- : This never occurs immediately after a subjective prefix, except when the subjective prefix is preceded by nd-, the first element listed above. It has no external effects.

H. Pre-objective Prefix :

1. -kĩ- : This must not be confused with the homophonous element above. This resembles the objective prefixes in behavior. A preceding Class A subjective prefix has the form ndĩ-. The final suffix in the imperative, when this element occurs, is -e rather than -a.

I. Objective Prefixes :

1. -0- : This symbolizes all objective prefixes, which immediately precede the verb stem. The inventory will be discussed in Appendix V. An immediately preceding Class A subjective prefix has the form ndĩ-, unless the objective prefix is that of Class B, in which case it is realized as n-.

J. Verb Stems :

1. -V- : All regular verb stems are so symbolized. The list is far too long for full presentation. If the Class A subjective prefix immediately precedes, it has the form n-. Other external effects will be discussed with the suffixal elements.

2. -V-ag- : This symbolizes all habitual/continuative stems, which differ from regular stems in the presence of the stem-formant -ag-. This normally occurs at the end of the stem, but usually precedes the stem-formants -i-, -w-, and -ir-. External effects are the same as those with regular stems.

K. Final Suffixes :

1. -a : This occurs finally. With the stem-formant -w- it merges to give -wo, not the expected -wa.

2. -e : The statements made for -a apply equally here.

3. -ĩ:te : If the stem includes the stem-formants -i- or -w-, these occur not preceding the element but within it, between t and e. If the stem-formant -w- occurs, the e is replaced by o. If this follows a syllable containing e or o not resulting from coalescence of ĩ or ũ in the stem with a prefixed vowel, it is realized as -e:te.

4. -ire : The behavior of this with the stem-formants -i- and -w- is identical with that of -ĩ:te. There are no other external effects.

Section 3 : Constructions with Regular Stems

A. Arrangement and Labelling :

The various forms of each construction are given, followed by a brief statement of function. Although not treated separately, copular

forms (those occurring with nĩ) and relatives are given as variant forms where differences occur and their existence noted where necessary. The subdivisions of the systems made here differ from those made in the body of the study. The reason for this difference has been stated there. The categories here are arbitrary, based on function, and intended to enforce the maximum differentiation of constructions.

Each construction is given a label consisting of DA (the D to distinguish the Kikuyu from other series of constructions, A indicating that the system of regular stems is referred to), followed by a number indicating the division of the system to which it belongs. Constructions belonging to the same division are distinguished by a lower-case letter, ordered according to temporal reference, wherever possible. Variant forms of the same construction are distinguished by an added small Roman numeral. At the end of the discussion of each construction the label of the endosyntactic unity in which it is included is given, to facilitate cross-reference. The divisions made are as follows:

DA.01	:	Indicative affirmative	with	temporal	reference
DA.02	:	"	negative	"	"
DA.03	:	"	affirmative	"	atemporal
DA.04	:	"	negative	"	"
DA.05	:	Conditional affirmative	"	temporal	"
DA.06	:	"	negative	"	"
DA.07	:	"	affirmative	"	atemporal
DA.08	:	"	negative	"	"
DA.09	:	Jussive	affirmative		
DA.10	:	"	negative		
DA.11	:	Consecutive	affirmative		
DA.12	:	"	negative		
DA.13	:	Absolute	affirmative		
DA.14	:	"	negative		
DA.15	:	Marginal constructions			

DA.02e.i $\acute{S}+t\acute{i}+V+\grave{a}$ ii nd+ $\acute{S}+V+\grave{a}$ iii $S+t\grave{a}+V+\grave{a}$

The distribution of variants is normal. All tonal patterns are highly uncertain. The third (relative) form has been found to occur only once, and there is some doubt as to its belonging with this construction. In the second form the subjective prefix of Class 1 is realized as -e- rather than the normal -a-. This has therefore been taken by Barlow to be a variant of DA.02f, but tonal factors prevent such identification. This seems to refer to the non-performance of the action later on the day of reference. It is hard to distinguish its function from that of DA.02f, but this seems to refer to periods of time beginning at the present, while that refers more often to specific times or periods beginning only after an interval. (AAAA.6j)

DA.02f.i $\acute{S}+t\acute{i}+r\acute{i}:+V+\acute{a}$ ii nd+ $\acute{S}+r\acute{i}:+V+\acute{a}$ iii $S+t\grave{a}+r\acute{i}:+V+\acute{a}$

The variants show normal distribution. In this -r\acute{i}:- is not normally realized as -i:-. This is basically near but not immediate future, used normally of actions commencing on the day of reference at some time in the future relative to the point of reference. (AAAA.6m)

DA.02g.i $\acute{S}+t\acute{i}+k\grave{a}:+V+\grave{a}$ ii nd+ $\acute{S}+k\grave{a}:+V+\grave{a}$ iii $S+t\grave{a}+k\grave{a}:+V+\grave{a}$

The variants are distributed as is normal with negatives. This refers to future actions after the day of reference. (AAAA.6n)

D. Indicative Affirmative with Atemporal Reference : DA.03

DA.03a.i $S+\grave{a}+V+i:\acute{t}\acute{e}$

This indicates that at a point in the past earlier than the day

before the point of reference the action had been performed or initiated, and its results were still in effect. It is used with or without ní and in relative form. (AAAA.3a)

DA.03b.i S+râ:+V+i:tè

This refers to actions which had been performed or initiated and whose results were still in effect at a point on the day preceding that of reference. Forms with or without ní and relatives are freely used. (AAAA.3b)

DA.03c.i Ś+kũ+V+i:té ii Ś+kũ+V+i:tè

The second form is used with ní and as relative, the first elsewhere. This is used of actions which had been performed or initiated prior to a point in the past on the day of reference. It is freely used with or without ní and in relative form. (AAAA.3d)

DA.03d.i S+V+i:té ii S+V+i:té

The latter is used with ní and in relatives, the former elsewhere. This is used of actions which at the point of reference have already been performed or initiated and whose results are still in effect. It occurs freely with or without ní and in relatives. (AAAA.3f)

DA.03e.i S+â+ná+V+â

It is difficult to decide whether to recognize two elements or one between subjective prefix and verb stem. If it is a single prefix, it is the only disyllabic prefixed element in the system. If double, there exists a probability that this, and similar constructions, are composite and belong to the series discussed in DA.15c. This is never used with ní and equivalents, but relatives probably exist. It refers

more than a day earlier than the point of reference the action had not been initiated. (AAAA.4a)

DA.04b.i $\acute{S}+t\acute{i}+r\hat{a}:+V+i\grave{:}t\grave{e}$ ii $nd+\acute{S}+r\hat{a}:+V+i\grave{:}t\grave{e}$
 iii $S+t\grave{a}+r\hat{a}:+V+i\grave{:}t\grave{e}$

The variants show normal distribution. This refers to actions initiated before a point on the day before that of reference, whose results were at that time still in effect. (AAAA.4b)

DA.04c.i $\acute{S}+t\acute{i}+k\grave{u}+V+i\grave{:}t\grave{e}$ ii $nd+\acute{S}+k\grave{u}+V+i\grave{:}t\grave{e}$
 iii $S+t\grave{e}+k\grave{u}+V+i\grave{:}t\grave{e}$

The variants are normal in distribution. Note the effect of -kũ- upon preceding a in the third. This refers to actions not initiated before a point in the past on the day of reference. (AAAA.4d)

DA.04d.i $\acute{S}+t\acute{i}+V+i\grave{:}t\grave{e}$ ii $nd+\acute{S}+V+i\grave{:}t\grave{e}$
 iii $S+t\grave{a}+V+i\grave{:}t\grave{e}$

The three forms show the pattern of distribution usual with negatives. This indicates that at the point of reference the action has not been initiated. (AAAA.4f)

DA.04e.i $\acute{S}+t\acute{i}+a\grave{+}n\acute{a}+V+a\grave{}$ ii $nd+\acute{S}+a\grave{+}n\acute{a}+V+a\grave{}$
 iii $S+t\grave{a}+a\grave{+}n\acute{a}+V+a\grave{}$

The three show normal distribution. The tonal patterns are most uncertain, and the relative form is nowhere attested. The other variants are found only in the grammars. In function it indicates that the action has never been performed. See DA.03e. (AAAA.6a)

DA.04f.i $\acute{S}+t\acute{i}+n\grave{a}+V+a\grave{}$ ii $nd+\acute{S}+n\grave{a}+V+a\grave{}$
 iii $S+t\grave{a}+n\grave{a}+V+a\grave{}$

The variants show normal distribution. This is formally identical

with DA.02b, to which this is so similar in function that they in fact probably represent the same structural unit. In Chapter II they are recognized as in fact the same construction. Here, however, the system of subdivision prevents such recognition. This indicates that the action has not been completed immediately before the point of reference. (AAAA.6f)

F. Conditional Affirmative with Temporal Reference : DA.05

DA.05a.i S+ngí+a+V+íré

This is used of actions in the past earlier than the day before that of reference, where there is a theoretical possibility of their performance. Absolute, copular, relative, and independent forms are used. (AAAB.1a)

DA.05b.i S+ngí+râ:+V+ìrè

This refers to the day before that of reference. Relative, absolute, copular, and independent forms occur. (AAAB.1b)

DA.05c.i S+ngí+V+íré ii S+ngí+V+íré

The second form is used with ní and in relatives. This indicates the action might have occurred earlier on the day referred to. Copular, relative, absolute, and independent forms occur. (AAAB.1c)

DA.05d.i S+ngí+râ:+V+á

This is used of hypothetical present action. Independent, copular, relative, and absolute occur. (AAAB.5c)

DA.05e.i S+ngí+V+á

The tonal pattern is uncertain. This indicates that at the point of reference the possibility of performing the action exists. It

DA.08b.i $\acute{S}+t\acute{i}+ng\acute{i}+r\acute{a}:+V+i:t\grave{e}$ ii $nd+\acute{S}+ng\acute{i}+r\acute{a}:+V+i:t\grave{e}$
 iii $S+t\grave{a}+ng\acute{i}+r\acute{a}:+V+i:t\grave{e}$

The distribution of variants is normal. This refers to actions begun before a point on the day before that of reference. It is not attested in my own materials, but is based on Barlow, pages 157-8. The tonal patterns are hypothetical. (AAAB.4b)

DA.08c.i $\acute{S}+t\acute{i}+ng\acute{i}+V+i:t\grave{e}$ ii $nd+\acute{S}+ng\acute{i}+V+i:t\grave{e}$
 iii $S+t\grave{a}+ng\acute{i}+V+i:t\grave{e}$

The variants have normal distribution. Tones are conjectural; this is drawn from Barlow, page 157, not my own data. It indicates the action could not or might not have been performed or initiated before the point of reference. (AAAB.4c)

DA.08d.i $\acute{S}+t\acute{i}+ng\acute{i}+a\grave{+}n\acute{a}+V+a\grave{}$ ii $nd+\acute{S}+ng\acute{i}+a\grave{+}n\acute{a}+V+a\grave{}$
 iii $S+t\grave{a}+ng\acute{i}+a\grave{+}n\acute{a}+V+a\grave{}$

The distribution of the three forms is that normal for negatives. This is taken from Barlow, page 158; tones are merely conjectured. Its reference is to actions which might never have been performed or might not have been performed at an indefinite point in the past. (AAAB.6a)

DA.08e.i $\acute{S}+t\acute{i}+ng\acute{i}+a\grave{+}V+a\grave{}$ ii $nd+\acute{S}+ng\acute{i}+a\grave{+}V+a\grave{}$
 iii $S+t\grave{a}+ng\acute{i}+a\grave{+}V+a\grave{}$

The forms show the usual distributions. Like DA.07e, this is used either of actions completed in the immediate past or, at times, apparently of present or future time. As usual, there exists an absolute form. (AAAB.6b)

after verbs of motion than DA.09b. (AABA.1c)

DA.09d.i $\acute{S}+r\acute{o}:+V+\grave{a}$

This is used in strong wishes, especially in formulae for cursing or blessing. It is never used with ní. (AABA.1d)

K. Jussive Negative : DA.10

DA.10a.i $\grave{S}+t\grave{i}+k\grave{a}:+V+\acute{e}$ ii $nd+\grave{S}+k\grave{a}:+V+\acute{e}$

The second form is used with subjective prefixes of Classes B, 1, 3, 4, and 9, the first elsewhere. This is used in negative commands, expressions of purpose, desire, permission, prohibition, etc., negating all functions of all constructions in DA.09. (AABA.2a)

L. Consecutive Affirmative : DA.11

DA.11a.i $\acute{S}+k\acute{i}+V+\grave{a}$

This is the usual far-past consecutive, following verbs with the same time reference as DA.01a. (ABAA.1a)

DA.11b.i $\acute{S}+r\acute{a}:+V+\grave{a}$

The tones are somewhat uncertain. This is consecutive to constructions with the temporal reference of DA.01b. (ABAA.1b)

DA.11c.i $\acute{S}+\acute{a}+V+\acute{a}$

This indicates consecutive action in the past on the day of reference. (ABAA.1c)

DA.11d.i $\acute{S}+k\grave{a}+V+\grave{a}$

This is used after independent constructions of all tenses of actions performed at essentially the same time as that of the preceding verb. It is most common after habitual/continuatives and statives. (ABAA.1d)

DA.11e.i $\acute{S}+V+\grave{e}$

This is formally identical with DA.09b. This is used of consecutive action in statements with future reference. (ABAA.1f)

DA.11f.i $\acute{S}+ka+V+\grave{e}$

Like the formally identical DA.09c, this differs from the similar DA.11e only in indicating a distance in space or time between the actions. (ABAA.1h)

M. Consecutive Negative : DA.12

DA.12a.i $\grave{S}+ti+V+\grave{e}$ ii $nd+\acute{S}+V+\grave{e}$

The latter is used with subjective prefixes of Classes B, 1, 3, 4, and 9, the former elsewhere. This is the only negative consecutive construction in the four dialects, and is unattested in my own data. According to Barlow, page 168, it is used as negative in any consecutive context, whatever the time reference. In my informants' speech, however, the independent negative is always used instead. The tonal pattern indicated is uncertain. (ABAA.2a)

N. Absolute Affirmative ¹ : DA.13

DA.13a.i $\acute{S}+\acute{a}+V+\acute{a}$

The tonal pattern is uncertain. This is used of actions completed before the time specified by the main verb. It is very much in use in temporal clauses and conditional sentences. (ACDA.3a)

DA.13b.i $\acute{S}+V+i:\acute{t}\acute{e}$

The tones are uncertain. This refers to actions initiated and having results still in effect at the time of the main verb. (ACDA.1a)

DA.13c.i $\acute{S}+k\acute{i}+V+\acute{a}$

This is used of actions at the same time as that of the main verb. It is much used in temporal clauses, conditionals, etc., but most often found after verbs involving perception indicating the actions of the person perceived. (ACDA.3e)

DA.13d.i $\acute{S}+r\hat{a}:+V+\acute{a}$

This seems to have much the same function as DA.13c, but seems to be used in somewhat different environments. However, identification of this as absolute might be incorrect; the forms may be merely relative equivalents of DA.01d. (ACDA.3g)

DA.13e.i $\acute{S}+k\grave{u}+V+\grave{a}$

If this is not merely a wrongly identified relative of DA.01e, it is basically synonymous with DA.13d, referring to action in progress at the time of the main verb. (ACDA.3h)

O. Absolute Negative ¹: DA.14

DA.14a.i $\acute{S}+t\acute{a}+n\grave{a}+V+\grave{a}$

This construction has been transcribed by Armstrong and others as if S+ta+a+na+V+a, probably following Barlow's tentative identification as connected with DA.04e (Barlow, page 148). In fact, in the speech of my informants the vowel is short, as here shown, and both form and function support a connection with DA.02b and DA.04f, not DA.04e. The construction indicates that the action has not been performed by the time of the independent verb. (ACDA.14a)

DA.11b.i $\acute{S}+t\acute{a}+V+\grave{I}:t\grave{e}$

This is used of actions not initiated and producing results valid at the time of the independent verb. (ACDA.2a)

P. Marginal Constructions : DA.15

DA.15a.i $S+ng\acute{o}+V+\grave{a}$

The tonal pattern is uncertain. Though the data on the function of this come from Barlow, pages 266-7, it was recognized and produced by Mr. Githongo. However, he never used it spontaneously, and its status is uncertain. He also disagreed with the translations given for Barlow's examples. Barlow calls it "equivalent to the use of anga with the [^]ite perfect" and says it "conveys an assumption of completed action. It is generally used interrogatively." Mr. Githongo felt it indicated more doubt than was shown by Barlow's translations. It does not seem to be used with ní. (ADAA.1a)

DA.15b Constructions with -kí-

Most, if not all, of the constructions listed above also occur with a prefixed element -kí- (not identical with that in DA.11a and DA.13c) immediately before any objective prefix. When it occurs with the imperative, form DA.09a.ii is used, as if it were an objective prefix itself. Such augmented constructions share an added semantic element difficult to define. Barlow calls it "connective or consequential" (page 264); Armstrong (page 304) claims it "introduces a friendly note." Though both are probably to some degree correct, Barlow's seems the better interpretation in most cases; there is an implication that the action follows from what has been stated previously. (ADAA.1d)

DA.15c Constructions with -na-

According to Barlow (148-9, 168) various constructions have a variant including an element -na- following the normal prefixed elements. These are said to refer to an indefinite time, past or future, like DA.03e and similar constructions, which may in fact belong to this series. It is clear that these exist in Kikuyu, but they are not attested in my data, unless DA.03e, etc., in fact are such constructions. It has seemed better not to include these in the body of the description, as they seem to resemble DA.15b in being augmented variants of other constructions. (ADAA.1d)

Section 4 : Constructions with Habitual Stems

A. Arrangement and Labelling :

The method of presentation here is essentially the same as that for the constructions with regular stems. The system of labelling also differs very little, the main point of divergence being the use of B following the D of the label instead of A, to indicate the presence of habitual/continuative rather than regular stems. The following divisions are made here:

- DB.01 : Indicative affirmative
- DB.02 : " negative
- DB.03 : Conditional affirmative
- DB.04 : " negative
- DB.05 : Jussive affirmative
- DB.06 : " negative
- DB.07 : Consecutive affirmative
- DB.08 : Absolute affirmative
- DB.09 : Marginal constructions

B. Indicative Affirmative : DB.O1

DB.O1a.i S+à+V-ág+á

This refers to habitual or continuous action earlier than the day before that of reference. It is used with or without ní and in relatives. (BAAA.1a)

DB.O1b.i S+râ:+V-ág+á

This refers to the day before that of reference, usually to continuous action, but also to habits ending on the day in question. It occurs with or without ní and in relatives. (BAAA.1b)

DB.O1c.i S+kù+V-ág+á ii S+kũ+V-àg+à

The latter is used with ní or in relatives, the former elsewhere. This is used of continuous action on the day of reference in the past. It is freely used with or without ní and as relative. (BAAA.1d)

DB.O1d.i S+V-àg+à ii S+V-àg+â

The second form is used with ní and in relatives, the first elsewhere. This is habitual, referring to habits in existence at the point of reference. It is used with or without ní and in relative form. (BAAA.1f)

DB.O1e.i S+rí:+V-ág+á ii S+í:+V-ág+á
 iii S+rí'+V-ág+â iv S+í'+V-ág+â

The forms in -rí:- are merely alternants of the tonally equivalent forms in -í:-; see DA.O1f on the distribution of the elements. The third and fourth are used with ní and in relative contexts, the first and second otherwise. This seems to be used of habits beginning at the present. It may occur also where at present the intent to commence the

habit exists. Independent, copular, and relative forms occur. (BAAA.1g)

DB.01f.i $\acute{S}+k\grave{a}:+V-\grave{a}g+\grave{a}$ ii $\acute{S}+k\grave{a}:+V-\grave{a}g+\acute{a}$

The latter is used with ní or in relative contexts, the former otherwise. This is infrequent, but may be used with or without ní or in relatives. It seems to be used of habitual or perhaps continuous action commencing at some point in the future. (BAAA.1h)

C. Indicative Negative : DB.02

DB.02a.i $\acute{S}+t\acute{i}+\grave{a}+V-\acute{a}g+\acute{a}$ ii $nd+\acute{S}+\grave{a}+V-\acute{a}g+\acute{a}$
 iii $S+t\grave{a}+\grave{a}+V-\acute{a}g+\acute{a}$

The third, as usual, is used in relatives, the second elsewhere with subjective prefixes of Classes B, 1, 3, 4, and 9, and the first elsewhere. The reference is to habitual or continuous action earlier than the day before that of reference. (BAAA.2a)

DB.02b.i $\acute{S}+t\acute{i}+r\grave{a}:+V-\acute{a}g+\acute{a}$ ii $nd+\acute{S}+r\grave{a}:+V-\acute{a}g+\acute{a}$
 iii $S+t\grave{a}+r\grave{a}:+V-\acute{a}g+\acute{a}$

The three show normal distributions. This is used of continuous action on the day before that of reference. (BAAA.2b)

DB.02c.i $\acute{S}+t\acute{i}+k\grave{u}+V-\grave{a}g+\grave{a}$ ii $nd+\acute{S}+k\grave{u}+V-\grave{a}g+\grave{a}$
 iii $S+t\grave{e}+k\grave{u}+V-\grave{a}g+\grave{a}$

The variants are normally distributed. Note the effect of -kú- on preceding a in the third. This is used of continuous action in the past on the day of reference. (BAAA.2d)

DB.02d.i $\acute{S}+t\acute{i}+V-\acute{a}g+\grave{a}$ ii $nd+\acute{S}+V-\acute{a}g+\grave{a}$
 iii $S+t\grave{a}+V-\acute{a}g+\acute{a}$

Distributions are normal. This refers to the present non-existence

of a habit or the habitual non-performance of an action. (BAAA.2e)

DB.02e.i $\acute{S}+t\acute{i}+r\acute{i}:+V-\acute{a}g+\acute{a}$ ii $nd+\acute{S}+r\acute{i}:+V-\acute{a}g+\acute{a}$
 iii $S+t\grave{a}+r\acute{i}:+V-\acute{a}g+\acute{a}$

The variants are normally distributed. Tones are uncertain. This seems to be used of habitual actions commencing at the point of reference and continuing indefinitely. (BAAA.2g)

DB.02f.i $\acute{S}+t\acute{i}+k\grave{a}:+V-\grave{a}g+\grave{a}$ ii $nd+\acute{S}+k\grave{a}:+V-\grave{a}g+\grave{a}$
 iii $S+t\grave{a}+k\grave{a}:+V-\acute{a}g+\grave{a}$

The forms have the distributions normal in negatives. Like DB.01f this is rare in Mr. Githongo's speech. It seems to refer to habitual or perhaps continuous actions commencing in the future. (BAAA.2h)

D. Conditional Affirmative : DB.03

DB.03a.i $S+ng\acute{i}+\grave{a}+V-\acute{a}g+\acute{a}$

This is used of habitual action before the day before that of reference, as well as continuous action. Independent, relative, copular and absolute forms exist. (BAAB.1a)

DB.03b.i $S+ng\acute{i}+r\acute{a}:+V-\acute{a}g+\acute{a}$

The tones are hypothetical. This is not attested in my data, and is taken from Barlow, page 160. It refers to continuous actions on the day before that of reference; independent, relative, copular and absolute forms exist. (BAAB.1b)

DB.03c.i $S+ng\acute{i}+V-\acute{a}g+\acute{a}$

The tones are conjectural, the form drawn from Barlow, page 159. Though this is not attested in my data, it indicates the present possibility of a habit's existence. Independent, relative, copular, and absolute

forms exist. (BAAB.1c)

DB.03d.i S+ngí+kà:+V-àg+a`

Tones are hypothetical. This is based on Barlow, page 159, not my own data. This refers to continuous or habitual performance of the action in the future, or the future possibility of the habitual or continuous performance thereof. Independent, relative, copular and absolute exist. (BAAB.1d)

E. Conditional Negative : DB.04

DB.04a.i S+ti+ngí+a`+V-ág+a` ii nd+S+ngí+a`+V-ág+a`
iii S+tà+ngí+a`+V-ág+a`

The three variants have normal distributions. This comes from Barlow, page 160, not my materials. It would refer to habitual or continuous action before the day preceding that of reference. As with all conditionals, an absolute form exists. (BAAB.2a)

DB.04b.i S+ti+ngí+râ:+V-ág+a` ii nd+S+ngí+râ:+V-ág+a`
iii S+tà+ngí+râ:+V-ág+a`

This too comes from Barlow, page 160. The variants have normal distribution. Tones are conjectural. This indicates continuous action on the day before that of reference. (BAAB.2b)

DB.04c.i S+ti+ngí+V-ág+a` ii nd+S+ngí+V-ág+a`

DB.04c.i S+ti+ngí+V-ág+a` ii nd+S+ngí+V-ág+a`

The three show normal distribution. Tones are uncertain, since only one example of this construction has been found. Temporal reference is to the present; it refers apparently to habitual, not continuous action. An absolute form, as with all conditionals, exists. (BAAB.2c)

DB.04d.i $\acute{S}+t\acute{i}+ng\acute{i}+k\grave{a}:+V-\grave{a}g+\grave{a}$ ii $nd+\acute{S}+ng\acute{i}+k\grave{a}:+V-\grave{a}g+\grave{a}$
 iii $S+t\grave{a}+ng\acute{i}+k\grave{a}:+V-\grave{a}g+\grave{a}$

This is based on Barlow, page 159, and tonal patterns are hypothetical. The variants have the normal negative distribution. It would refer to habitual or perhaps continuous future action. (BAAB.2d)

F. Jussive Affirmative : DB.05

DB.05a.i $V-\acute{a}g+\grave{a}$ ii $O+V-\acute{a}g+\grave{e}$

The first form is used with no objective prefix or that of Class A, the other with any objective prefix besides that of Class A. This differs from DA.09a only in its habitual/continual reference. (BABA.1a)

DB.05b.i $\acute{S}+V-\grave{a}g+\grave{e}$

This is identical in form and function with DA.09b, except for the habitual/continulative stem and its associated function. (BABA.1b)

DB.05c.i $\acute{S}+k\grave{a}+V-\grave{a}g+\grave{e}$

This is the habitual/continulative equivalent of DA.09c. (BABA.1c)

DB.05d.i $\acute{S}+r\hat{o}:+V-\grave{a}g+\grave{a}$

This differs only in habitual/continuous function from DA.09d. (BABA.1d)

G. Jussive Negative : DB.06

DB.06a.i $\grave{S}+t\grave{i}+k\grave{a}:+V-\grave{a}g+\acute{e}$ ii $nd+\grave{S}+k\grave{a}:+V-\grave{a}g+\acute{e}$

This differs from DA.10a only in habitual/continulative form and function. The former variant is used with subjective prefixes of all classes except B, 1, 3, 4, and 9, the latter with those classes. (BABA.2a)

H. Consecutive Affirmative : DB.07

DB.07a.i $\acute{S}+k\grave{a}+V-\grave{a}g+\grave{a}$

This is used in the same environments as DA.11d with essentially

the same function, but of continuous or habitual action. Normally in a series of consecutive actions it occurs only once, following verbs taking DA.11d. (BBAA.1a)

DB.07b.i $\acute{S}+V-\grave{a}g+\grave{e}$

Formally identical with DB.05b, this is used in future contexts of consecutive continuous or habitual actions. (BBAA.1b)

I. Absolute Affirmative¹ : DB.08

DB.08a.i $\grave{S}+k\acute{i}+V-\acute{a}g+\acute{a}$

This is used normally of continuous action at the time indicated by the independent verb. It thus resembles DA.13c, but is less often used in temporal clauses, etc., and with verbs of perception. It is most used with the same object as an independent verb normally involving motion, of an accompanying action. (BCDA.1a)

DB.08b.i $\acute{S}+V-\grave{a}g+\acute{a}$

Tones are uncertain. This differs slightly from DB.08a, though it has much the same reference. The distributions do not show clear enough contrast to allow definite statement as to the difference between the two. (ECDA.1b)

J. Marginal Constructions : DB.09

DB.09a Constructions with -k\acute{i}-

Most, if not all, of the above constructions have an augmented equivalent with prefixed -k\acute{i}-. For details of form and function, see DA.15b. (BDAA.1c)

Notes to Appendix I:

1. Though absolute equivalents exist for all conditional constructions, these have not been discussed individually.

APPENDIX II: KAMBA CONSTRUCTION INVENTORY

Section 1 : Introductory

A. Sources :

The Kamba verbal system has perhaps been described more often than that of any of the other dialects. Unfortunately, it is also the most diversely described. In the course of my research I naturally consulted various grammars, but it proved impossible to extract any uniform description from these. Besides the lack of tonal indications, no grammar pretended to give a complete inventory or full description of function. Moreover, the accounts given were often contradictory, owing to differences in subdialect described. A final disadvantage was that no grammar consulted agreed with the speech of the informant on whom I was forced to rely for tonal data.

In this situation, it was clearly necessary to disregard the published grammars. I did frequently refer to the Practical Introduction to Kamba of W.H. Whiteley and M.G. Muli (Oxford, 1962), A Kamba Grammar, by E.M. Farnsworth, A.I.M., 1954, and especially to the article "Some Problems of Stability and Emphasis in Kamba One-word Tenses", J.M.G. Ndumbu and W.H. Whiteley, J.A.L. I/2, 1962. However, the constructions described are drawn practically exclusively from the usage of my main Kamba informant, Mr. James M. Nduva, by origin of the area of Machakos, though his speech differed considerably from the Kamba of grammars based on the Machakos sub-dialect. I also consulted to some extent the speech of Miss A. Kiema, a speaker of "Kitui Kamba", but have not included any material on her usage.

Data on Mr. Nduva's speech were obtained by direct questioning, translation to Kamba of a questionnaire designed for use in obtaining verbal materials, and examination of spontaneous texts recorded on tape and subsequently transcribed. The material obtained by means of the questionnaire was used mainly to ascertain the general outlines of the system, formal and functional details being supplied mainly by direct interrogation. Textual material served in part to yield data on function and in part to reveal constructions which might not have been discovered by other means. When irregularities were found in the pattern of the system, after analysis of data of all types, further questioning was used to discover if previously unelicited items existed which would fill holes in the pattern. The resulting materials may be considered reasonably accurate and complete.

B. Presentation :

Discussion and analysis of the Kamba verbal system is complicated by sound-shifts which have occurred in the dialect, reducing significantly the proportion of consonants to vowels and, in some parts of the system, leading to a high degree of analogic innovation and confusion even for native speakers. Fortunately, this affects the inflectional system in only a few cases. However, a number of constructions contain constituents whose realization varies, generally through the realization or omission of a consonant, the variation being conditioned by other elements in specific constructs. There is much difference between sub-dialects in the degree of such variation. Here the fullest form found for each element is used in citing patterns, and the nature and

distribution of any variants given.

Section 2 : Inventory of Constituent Elements

A. Discussion :

The following list gives, without tonal marking, the elements found in the constructions below, arranged in order of occurrence in the construction. Elements in the same section are mutually exclusive and alphabetically arranged. No attempt is made to determine morphologic affiliations, as data from analysis of the constructions would be needed. See Chapter IV. This list indicates the formal elements found, their normal position in the construction, and their effects, if any, upon neighbouring units, as well as any formal variations which occur. Function and tone, being variable and uncertain, are omitted.

B. Elements Preceding the Subjective Prefix :

1. nd- : Always initial, this has no effect on neighbouring units.

C. Subjective Pronominal Prefixes :

1. S- : This symbolizes all subjective prefixes; the full list will be found in Appendix V. These have no effect on neighbouring elements which is not regular and predictable.

D. Elements Immediately Following the Subjective Prefix :

1. -ta- : This immediately follows the subjective prefix, preceding any other prefix. The Class A subjective prefix has the form n- if it immediately precedes this.

2. -ti- : As in many sub-dialects of Kamba, when this is preceded by a vowel it is normally realized -i-. When the Class A subjective

prefix immediately precedes, it has the form n- and the consonant is always realized, the combination being regularly realized ndi-.

E. First Post-negative Order :

1. -a- : The Class A subjective prefix has the form n-. The vowel coalesces with following vowels capable of coalescence.

2. -a:- : This differs from 1. only in length.

3. -ĩ:- : The Class A subjective prefix has either the form n- or nĩ- (the difference would be extremely difficult to detect).

4. -i- : The structural form is uncertain. Combined with the Class A subjective prefix this gives ndi-, which could lead one to suspect that the form is identical with D.2 (-ti-). Evidence from other sub-dialects supports the presence of t in the latter, but here no sub-dialect shows an initial consonant.

5. -ka- : The Class A subjective prefix has the form n-.

6. -ka:- : This differs from 5. only in length.

7. -kĩ- : The Class A subjective prefix is n-

8. -kũ- : The Class A subjective prefix has the form n-. If a prefix with vowel a immediately precedes this, e is found instead of a. The k is normally omitted in intervocalic position, except when ũ becomes a glide before a stem-initial vowel capable of coalescence, and sometimes when the subjective prefix of Class 1 (or, less regularly, of any class when the subject is a human being or animal) immediately precedes.

9. -na- : This is never immediately preceded by the Class A subjective prefix and has no external effects.

10. -na:- : The Class A subjective prefix has the form nĩ-.

11. -nee- : This is never preceded by the Class A subjective prefix and has no external effects. Its status as a single unit is uncertain.

F. Objective Prefixes :

1. -O- : This symbolizes all objective prefixes, which immediately precede the verb stem. The inventory will be discussed in Appendix V. An immediately preceding Class A subjective prefix has the form n- if the objective prefix is that of Class B, but otherwise is nĩ-.

G. Verb Stems :

1. -V- : All regular verb stems are so symbolized. The list is far too long for full presentation. An immediately preceding Class A subjective prefix is realized as n- or nĩ-, depending on the stem's initial (details are too complex and uncertain for full discussion). The form of the Class A objective prefix is identical. Other external effects are discussed with the suffixal elements.

2. -V-a- : This symbolizes all habitual/continuative stems, which differ from regular stems in the presence of the stem-formant -a-. This follows all other stem-formants except the passive -w- and causative -i-; with the latter it combines to form -asy-. External effects are the same as those of regular stems.

H. Final Suffixes :

1. -a : This occurs finally.

2. -e : This is final, with no external effects.

3. -i:te : If the stem includes the stem-formants -w- or -i-, these do not precede this suffix, but occur between t and e. If the vowel of the preceding syllable is e or o, unless this results from coalescence of ī or ū in the stem with a prefixed vowel, this is realized as -e:te.

4. -ie : The stem-formants -w- and -i- immediately precede the e. If an l occurs in the stem this has the form -ile. If no l occurs, but the causative stem-formant -i- is infixes as described, the combination is realized -isye.

Section 3 : Constructions with Regular Stems

A. Arrangement and Labelling :

The various forms of each construction are given, followed by a brief statement of function. Though not treated separately, copular forms (those occurring with ni') and relatives are given as variants where differences occur, and their existence is noted where necessary. The subdivisions of the systems made here differ from those in the body of the study, for reasons discussed there. The categories here are arbitrary, based on function, and intended to enforce the maximum differentiation of constructions.

Each construction has a label consisting of EA (the E to distinguish the Kamba from other series of constructions, A to indicate that the system of regular stems is referred to), followed by a number indicating the division of the system into which it falls. Constructions in the same division are distinguished by a lower-case letter, ordered by temporal reference where this exists. Variants of the same construction

are distinguished by an added small Roman numeral. After discussion of each construction there is given the label of the endosyntactic unity in which it is included, for easy cross-reference. These divisions are made:

EA.01	:	Indicative affirmative with temporal reference
EA.02	:	" negative " " "
EA.03	:	" affirmative " atemporal "
EA.04	:	" negative " " "
EA.05	:	Jussive affirmative
EA.06	:	" negative
EA.07	:	Consecutive affirmative
EA.08	:	Absolute affirmative
EA.09	:	" negative

B. Indicative Affirmative with Temporal Reference : EA.01

EA.01a.i S+a+V+ié[^]

This refers to the remote past, normally more than a day before the point of reference. Except for very remote time this is usually used only in narrative, where it may refer to even quite recent points. There are examples of this alternating with EA.01b, the differences in some cases being merely one of style. Independent, copular, and relative forms are freely used, the relative probably the most often in non-narrative contexts. (AAAA.1a)

EA.01b.i S+nâ:+V+iè`

This refers basically to the day before that of reference, but it may also overlap with EA.01a in being used of quite remote times. It is only rarely so used in narration, however. Relative forms, and those with and without ní, are often used. (AAAA.1c)

EA.01c.i S+V+ié

ii S+V+ié[^]

iii S+V+ié[´]

iv S+V+ié[´]

The first form occurs in non-relative forms without ní and in

copular forms with low-toned subjective prefix or with high subjective prefix but low verb stem, and also in relatives with low subjective prefix. The second is used with copulars with high subjective prefix and verb stem. The third is used in relatives with high subjective prefix and verb stem, and the fourth in relatives with high subjective prefix but low verb stem. This refers to the past of the day of reference. Independent, relative, and copular are all common. (AAAA.la)

EA.Old.i S+kú+V+a

The independent form is almost never used, the copular with ní or EA.Ole being preferred. This refers to the present and near future, usually up to the end of the day of reference. It may also be used of time further in the future, but only when it is understood that the intent to perform the action exists at present. (AAAA.5g)

EA.Ole.i S+i:+V+'á

No relative or copular form exists. This refers to present actions. It is essentially complementary in distribution to EA.Old, occurring mainly in conversational environments, especially questions and answers to questions in which it occurs. (AAAA.5h)

EA.Olf.i S+'í:+V+'á ii S+'í:+V+'á

The latter is the relative form, the former used elsewhere. Except in tone this is formally identical with EA.Ole. It too serves as an alternative to EA.Old. The two are readily confused by the investigator, even when tones are considered, and many reasons could be given for recognizing them as identical. However, they are in fact different and contrasting units. This may rarely be used with ní, but

it is not a copular, but the independent, which is so used, and ní has the function of added emphasis found with jussives, rather than that it has with copulars. This refers to the near future, overlapping with EA.Old and, sometimes, EA.Olg, but has an added element of certainty or perhaps obligation. From its function this might be considered a jussive, but no jussive has a corresponding relative. This should perhaps, in a truly scientifically based subdivision, be placed in a class of its own. (AAAA.5i)

EA.Olg.i $\acute{S}+k\acute{a}:+V+\acute{a}$

A relative but no copular form exists. Use of a copular is considered childish. It refers to any time after the day of reference. (AAAA.5j)

C. Indicative Negative with Temporal Reference : EA.02

EA.02a.i $\acute{S}+t\acute{i}+\acute{a}:+V+\grave{a}$ ii $nd+\acute{S}+\acute{a}:+V+\grave{a}$

iii $S+t\acute{a}+\acute{a}:+V+\grave{a}$

The third is used in relatives, the second elsewhere with the subjective prefixes of Classes B, 1, 3, 4, and 9, the first otherwise. This refers to the remote past, more than a day before the point of reference, as with EA.Ola almost exclusively in narrative contexts. (AAAA.6b)

EA.02b.i $\acute{S}+t\acute{i}+n\acute{e}\grave{e}+V+\grave{a}$ ii $nd+\acute{S}+n\acute{e}\grave{e}+V+\grave{a}$

iii $S+t\acute{a}+n\acute{e}\grave{e}+V+\grave{a}$

The variants, like those of most negatives, agree in distribution with those of EA.02a. This refers basically to the day before that of reference, but may also, in conversational usage, extend even to quite distant past times. It is rare in narrative. (AAAA.6e)

EA.02c.i S̃+ti+nâ+V+à

ii nd+S̃+nâ+V+à

iii S+ta+nâ+V+à

The variants show the usual distribution. This refers to the past on the day of reference. (AAAA.6f)

EA.02d.i S̃+ti+kũ+V+à

ii nd+S̃+kũ+V+à

iii S+te+kũ+V+à

The variants have normal distribution; note the effect of -kũ- on preceding a in the relative. This refers to present action or to the future until the end of the day of reference, or sometimes further future if present intent to perform the action exists. There is much overlap with EA.02e and EA.02f. (AAAA.6i)

EA.02e.i S̃+ti+'V+'á

ii nd+S̃+'i:+'V+'á

iii S+te:+'V+à

Though the variants are normally distributed, this is most unusual in form and presents several problems, not the least being the risk of confusion with EA.02f. In the first form the prefix found in the second and third is not realized. The length of that prefix is impossible to determine, as the only environments in which it occurs are ones in which coalescence is obligatory or a structurally short vowel would be automatically lengthened. One should perhaps not identify this, as has been done, with the prefix of EA.01f. This seems to be used as a simple negative referring to any specified future time. Its time reference overlaps that of all other future negatives. (AAAA.6m)

EA.02f.i S̃+ti+V+'á

ii nd+S̃+V+'á

iii S+ta+V+'á

Only when the verb stem is high in tone can this be distinguished

third form. This refers to actions not performed or commenced before a point in the past on the day of reference. (AAAA.4e)

EA.04d.i $\hat{S}+t\acute{i}+V+\hat{i}:t\acute{e}$ ii $nd+S'+V+\hat{i}:t\acute{e}$
 iii $S+t\acute{a}+V+\hat{i}:t\acute{e}$

The variants have normal distribution; tones are slightly uncertain. This refers to actions not having been performed or initiated by the time of reference. (AAAA.4f)

EA.04e.i $\hat{S}+t\acute{i}+a:+V+a$ ii $nd+S'+a:+V+a$
 iii $S+t\acute{a}+a:+V+a$

This is formally identical with EA.02a, with which in the comparison it has been identified as structurally identical. The variants have normal distribution. This indicates the action has never taken place, and this cannot, with the system of subdivision in use here, be identified with EA.02a. (AAAA.6b)

EA.04f.i $\hat{S}+t\acute{i}+n\hat{a}+V+a$ ii $nd+S'+n\hat{a}+V+a$
 iii $S+t\acute{a}+n\hat{a}+V+a$

This has normal distribution of variants. It is formally identical, and in comparison is considered structurally identical, with EA.02c. This indicates that the action has not been completed shortly before the time of reference, and the system of subdivision prevents the identification with EA.02c here. (AAAA.6f)

F. Jussive Affirmative : EA.05

EA.05a.i $V+'a$ ii $O+V+'e$

The second is used only when an objective prefix is included. With the objective prefix of Class A Mr. Nduva's dialect uses either form,

though the first may be preferred. The first is never used with an objective prefix other than that of Class A. No subjective prefix is ever included. This is imperative, and may be said to imply a Class B or BB subject. It is never used with ní. If addressed to more than one person, it is used with the enclitic î. (AABA.1a)

EA.05b.i S+V+è

This is much used in contexts expressing purpose, permission, desire, etc., and serves as a less emphatic imperative. In commands and suggestions addressed to more than one person the enclitic î may be used, even if the persons addressed are not to be involved in the proposed action. In commands and suggestions ní may be used for emphasis, but no copular form occurs. (AABA.1b)

EA.05c.i S+V+'á

This is very limited in use, being restricted to one environment with a single function. It is found mainly, perhaps exclusively, after the verb -túm- 'cause' indicating the action caused. It is never used with ní. (ACAA.1a)

EA.05d.i S+kà+V+è

This is exactly identical in function to EA.05b, except in indicating a distance in time or space between the command, intention, etc., and the action proposed. It is most commonly found after verbs expressing motion. (AABA.1c)

G. Jussive Negative : EA.06

EA.06a.i S+ti+kà:+V+'è ii nd+S+kà:+V+'è

The latter is used with subjective prefixes of Classes B, 1,

3, 4, or 9, the former otherwise. This serves to negate all jussive affirmatives except EA.05c. (AABA.2a)

EA.06b.i $\acute{S}+t\grave{a}+V+\acute{a}$

This, like EA.05c, which it negates, is used only after -túm- 'cause' of the action (or inaction) caused. (ACAA.2a)

H. Consecutive Affirmative : EA.07

EA.07a.i $\acute{S}+a+V+\acute{a}$

This is used in consecutive position in any past context, of actions following that of the main verb. Different sub-dialects of Kamba show considerable differences here. (ABAA.1c)

EA.07b.i $\acute{S}+k\grave{a}+V+\grave{a}$

This is used, whatever the temporal context, of actions performed at essentially the same time as that specified by the main verb. It is most used after habitual/continuatives. (ABAA.1d)

EA.07c.i $\acute{S}+i+V+\grave{a}$

This is the consecutive normally found in future contexts, even after imperatives, of actions following that of the main verb. (ABAA.1e)

EA.07d.i $\acute{S}+k\acute{i}+V+\grave{a}$

This does not in fact belong to the sub-dialect of this description, being typical of Kikui Kamba. Mr. Nduva uses it to some extent, because of influence from other sub-dialects, including the literary form, and it has therefore been included. It is identical with EA.07c in function, and there is some evidence that that construction is actually a modification of this which has replaced it in certain areas. (ABAA.1a)

I. Absolute Affirmative : EA.08

EA.08a.i S+á+V+á

This is used of actions completed a short time before that of the independent verb. It is very common in non-relative temporal clauses and conditions. (ACDA.3a)

EA.08b.i S+V+í:tè

Other variants may exist but have not been found. This indicates that at the time of the main verb the action has been performed or initiated. It is not often used conditionally. (ACDA.1a)

EA.08c.i S+nâ:+V+á

This rare construction resembles EA.08a in function, but differs in indicating only the performance of the action at some unspecified point in the past relative to the main verb. (ACDA.3c)

EA.08d.i S+i+V+á

This refers to action taking place at the same time as that of the main verb. It is common after verbs involving perception of an action being performed by the object of the main verb. (ACDA.3f)

EA.08e.i S+kí+V+á

This is functionally identical with EA.08d. Like EA.07d, it is in fact a form belonging to a different sub-dialect, occasionally used in Mr. Nduva's speech. (ACDA.3e)

EA.08f.i S+ka+V+á

This is used mainly in conditional environments. It seems to be used mainly in future contexts, but its exact function is not easy to determine. It may refer to actions at the same time as that of

the main verb, but the distinction between this and EA.08d is impossible to determine with certainty. (ACDA.3i)

J. Absolute Negative : EA.09

EA.09a.i $\acute{S}+t\acute{a}+n\grave{a}+V+\grave{a}$

This is used of actions not yet performed and completed at the time of the independent verb. (ACDA.4a)

EA.09b.i $\acute{S}+t\grave{a}+V+\acute{I}:t\grave{e}$

This indicates that at the time of the main verb the action is not in a state of having been initiated, with results still in effect. (ACDA.2a)

Section 4 : Constructions with Habitual Stems

A. Arrangement and Labelling :

The method of presentation here is basically the same as that with constructions having regular stems. The system of labelling differs only in the use of B instead of A after E, to differentiate the habitual from the regular series. These divisions are made:

- EB.01 : Indicative affirmative
- EB.02 : " negative
- EB.03 : Jussive affirmative
- EB.04 : " negative
- EB.05 : Consecutive affirmative
- EB.06 : Absolute affirmative

B. Indicative Affirmative : EB.01

EB.01a.i $S+t\grave{a}+V-\acute{a}+\acute{a}$

This is used of habitual or continuous action earlier than the day before that of reference, normally only in narrative. Independent, copular, and relative forms occur freely. (BAAA.1a)

EB.Olb.i S+ná:+V-'á+á

ii S+ná:+V-'á+á

The latter is used as copular, the former otherwise. This refers to continuous action on the day before that of reference, and is also used in conversational contexts of habitual action up to a few weeks or months before the point of reference. The latter use is less common than the corresponding use of EA.Olb. (BAAA.lc)

EB.Olc.i S+kú+V-á+á

This is not normally used in independent, but only in copular and relative forms. It refers to past continuous action on the day of reference. (BAAA.ld)

EB.Old.i S+i:+V-'á+á

The time reference is identical with EB.Olc. This has no copular or relative form, and is used mainly in conversation, especially in questions and answers. (BAAA.le)

EB.Ole.i S+V-á+á

ii S+V-á+á

Independent, relative, and copular exist. The latter variant is relative, where the subjective prefix is high in tone, and copular, the former used otherwise. This indicates a habit's present existence; it is not used of continuous action. (BAAA.lf)

EB.Olf.i S'í:+V-á+á

ii S'í:+V-á+á

The latter is relative or copular, the former independent; the independent is not normally used. This refers to future habitual or continuous action, probably more often the latter. The exact time reference is uncertain, but the beginning of the action is very probably closer to the present than EB.Olg would imply. This is rare, however. (BAAA.lg)

non-existence of a habit, or present existence of a habit of non-performance of the action. (BAAA.2e)

EB.02e.i $\acute{S}+t\acute{i}+i\acute{:}+V-\grave{a}+á$ ii $nd+\acute{S}+i\acute{:}+V-\grave{a}+á$
 iii $S+t\acute{e}:+V-\grave{a}+á$

Note the coalescence of the prefixes in the third form. The variants show normal distribution. This is used of future habitual or continuous action. The distinction between this and EB.02f is uncertain because of doubt as to precise temporal range. (BAAA.2g)

EB.02f.i $\acute{S}+t\acute{i}+k\acute{a}:+V-\grave{a}+á$ ii $nd+\acute{S}+k\acute{a}:+V-\grave{a}+á$
 iii $S+t\acute{a}+k\acute{a}:+V-\grave{a}+á$

The three have the usual distributions. This refers to habitual or continuous action in the future, but its temporal range is uncertain. (BAAA.2h)

D. Jussive Affirmative : EB.03

EB.03a.i $V-\acute{a}+é$ ii $0+V-\acute{a}+é$

The forms are distributed as in EA.05a. This differs from that construction only in the habitual/continuative function of the stem. (BABA.1a)

EB.03b.i $\acute{S}+V-\acute{a}+é$

This resembles EA.05b in form and function. It differs only in having habitual/continuative function. (BABA.1b)

EB.03c.i $\acute{S}+k\acute{a}+V-\acute{a}+é$

This differs from EB.03b as EA.05d differs from EA.05b, in indicating a distance in time or space between command, desire, etc., and the action proposed. (BABA.1c)

E. Jussive Negative : EB.04

EB.04a.i $\acute{S}+t\grave{i}+k\grave{a}:+V-\acute{a}+é$ ii $nd+\acute{S}+k\grave{a}:+V-\acute{a}+é$

The former is used with subjective prefixes other than those of Classes B, 1, 3, 4, and 9, with which the latter is found. This negates all affirmative jussive habitual/continuatives. (BABA.2a)

F. Consecutive Affirmative : EB.05

EB.05a.i $\acute{S}+k\grave{a}+V-\acute{a}+\acute{a}$

This is used of habitual or continuous actions at the same time as that of the main verb. It normally occurs only once in a series of consecutives, following verbs using EA.07b. (BBAA.1a)

G. Absolute Affirmative : EB.06

EB.06a.i $S+V-\acute{a}+\acute{a}$

This is used of either habitual or continuous action in effect at the time of the independent verb. (BCDA.1b)

APPENDIX III: EMBU CONSTRUCTION INVENTORY

Section 1 : Introductory

A. Sources :

In my original plans this thesis was to be limited to Kikuyu, Kamba, and Mwimbi. While still compiling and analyzing data on these dialects, however, I was fortunate enough to find in London an Embu speaker. After having worked to a small extent with him, I decided it would be necessary to include Embu in the comparison, if a sufficient number of data to allow treatment comparable with that given the other dialects could, in a short enough time, be collected. The desirability of including Embu is due to the fact that, while very close to Kikuyu, Embu shares with each of the other three dialects significant features lacking elsewhere in Thagicú.

Fortunately, my informant (Mr. Samuel M. J. Kíúra, of the area of Embu Township itself) proved very capable and helpful. In a very short time I collected a body of textual materials, translations of the questionnaire used with the other dialects, and a mass of information obtained through direct questioning. The texts served partly to check the function of constructions and as a source for constructions which might otherwise have been omitted, while the questionnaire also served as a primary source on the general outline of the system. Through direct elicitation I was able to fill gaps which seemed to appear in the system, and to obtain more detailed information on form and function than would otherwise have been possible.

B. Presentation :

The description of Embu, unlike those of the other dialects, is based exclusively on the speech of a single informant, not supplemented by published material. It is therefore somewhat more consistent than the others, and perhaps more complete. One might expect a less complete account, but in fact research on Embu was begun when analysis of the other dialects had already commenced, and all the lessons learned in working with the other dialects could be applied in the course of elicitation

Section 2 : Inventory of Constituent Elements

A. Discussion :

The following list gives, without tones being marked, all elements found in the constructions below, arranged in order of occurrence in the construction. Elements in the same section are mutually exclusive and alphabetically ordered. No attempt to determine morphologic affiliations is made, as for this data from analysis of the constructions would be necessary. See Chapter IV. The formal elements are listed, their position in the construction and effects, if any, on nearby elements are stated. Function and tone, both being variable and uncertain, are omitted.

B. Elements Preceding the Subjective Prefix :

1. nd- : This is always initial; it has no external effects.

C. Subjective Prefixes :

1. S- : This symbolizes all subjective prefixes; these are listed in Appendix V, and have no external effects.

D. Elements Immediately Following the Subjective Prefix :

1. -ta- : An immediately preceding Class A subjective prefix has the form n-.

2. -ti- : The Class A subjective prefix is n- before this prefix. If -a- or -ra:- follow this prefix in a construction where these elements are basically low in tone, they are normally raised to high.

E. Conditional Prefix :

1. -ngí- : A preceding Class A subjective prefix has the form ní-. This seems to have the same effects as -ti- upon the tones of -a- and -ra:-.

F. First Post-conditional Order :

1. -a- : The Class A subjective prefix if immediately preceding has the form n-. If this, when it has been raised in tone after -ti- or -ngí-, precedes a basically high tone, the following high will be realized a step lower in tone than this prefix.

2. -a:- : This has no external effects.

3. -ka- : A preceding Class A subjective prefix has the form n-.

4. -kí- : The Class A subjective prefix is n-.

5. -kū- : An immediately preceding Class A subjective prefix has the form n-. A short vowel in an immediately preceding prefix is lengthened before this element.

6. -ra:- : The Class A subjective prefix takes the form ní-.

7. -ro:- : A preceding Class A subjective prefix has the form ní-.

G. Second Post-conditional Order :

1. -ka:- : An immediately preceding Class A subjective prefix

has the form n-.

2. -na- : This has no external effects.

H. Objective Prefixes :

1. -O- : This symbolizes all objective prefixes. These immediately precede the verb stem. For the inventory, see Appendix V. An immediately preceding Class A subjective prefix has the form nĩ-, except before the objective prefix of Class B, with which it is n-.

I. Verb Stems :

1. -V- : This symbolizes all regular stems. This list is far too long for complete presentation. An immediately preceding Class A subjective or objective prefix has the form n-. For other external effects see the discussion of suffixes.

2. -V-ag- : This symbolizes all habitual/continuative stems, which differ from the regular in the presence of the stem-formant -ag-. This is normally found at the end of the stem, but usually precedes the stem-formants -ĩr-, -i-, and -w-. It has the same external effects as would a regular stem.

J. Final Suffixes :

1. -a : This is final and has no external effects.
2. -e : This has no external effects.
3. -ĩ:te : The stem-formants -i- and -w- do not precede this suffix, but occur between t and e. If the vowel of the preceding syllable is e or o, unless this results from coalescence of ĩ or ũ in the stem with a prefixed vowel, this suffix is realized -e:te.
4. -ire : If the stem-formants -i- or -w- occur, they are realized between r and e.

Section 3 : Constructions with Regular Stems

A. Arrangement and Labelling :

The variants of each construction are given, together with a brief statement of function. Copular forms (those used with ni) and relatives are not treated separately; their existence is mentioned where appropriate, and if their form differs from that of the independent they are included in the list of variants. Absolute forms of all conditionals exist, but they are not discussed separately, nor are their forms given. The subdivision of the systems here differs from that in the body of the thesis, for reasons discussed there. Here the categories are arbitrary and based on function, being intended to enforce the maximum differentiation of constructions.

Each construction has a label consisting of FA (the F distinguishes the Embu from other series of constructions, the A indicates that the regular stems are involved), followed by a number indicating the subdivision to which it belongs. Constructions in the same subdivision are distinguished by a lower-case letter, ordered by time reference where this exists. Variants of a construction are distinguished by added small Roman numerals. After discussion of each construction is given the label of the endosyntactic unity in which it is included, for ease of cross-reference. These subdivisions are made:

FA.01	:	Indicative	affirmative	with	temporal	reference
FA.02	:	"	negative	"	"	"
FA.03	:	"	affirmative	"	atemporal	"
FA.04	:	"	negative	"	"	"
FA.05	:	Conditional	affirmative	"	temporal	"
FA.06	:	"	negative	"	"	"
FA.07	:	"	affirmative	"	atemporal	"
FA.08	:	"	negative	"	"	"

FA.O1f.i S+ká:+V+a

ii S+ká:+V+a

The latter is copular, the former relative and independent; all three are common. This is used of any specific future time after the day of reference. (AAAA.5j)

FA.O1g.i S+ká:+V+a

Except in tone this is identical in form with FA.O1f. It refers to events at an indefinite point in the future. It could perhaps be a variant of FA.O1f, contextually conditioned by the presence of a time-indicating adverb, but may also be a separate construction. A relative exists; any copular form, however, is formally identical with and indistinguishable from that of FA.O1f. (AAAA.5k)

C. Indicative Negative with Temporal Reference : FA.O2

FA.O2a.i S+ti+a+'V+íré

ii nd+S+a+'V+íré

iii S+ta+a+V+íré

The third form is relative. The second is independent, used with the subjective prefixes of Classes B, 1, 3, 4, and 9; the first is used otherwise. This refers to events earlier than the day before that of reference. (AAAA.2a)

FA.O2b.i S+ti+na+V+a

ii nd+S+na+V+a

iii S+ta+na+V+a

The forms are distributed as in FA.O2a, this pattern of distribution being shared by most negatives. This refers to the past on the day of reference and that preceding. (AAAA.6f)

FA.02c.i $\acute{S}+t\acute{i}+r\acute{a}:+V+\grave{a}$ ii $nd+S'+r\acute{a}:+V+\grave{a}$
 iii $S+t\acute{a}+r\acute{a}:+V+\grave{a}$

The forms have the distribution found with other negative constructions. This refers to actions in progress at the time of reference, or rather to their non-performance. (AAAA.6h)

FA.02d.i $\acute{S}+t\acute{i}:+k\grave{u}+V+\grave{a}$ ii $nd+S'+k\grave{u}+V+\grave{a}$
 iii $S+t\acute{a}:+k\grave{u}+V+\grave{a}$

The variants have the normal distributions. Note the lengthening effect of -kū-. This is used, synonymously with FA.02c, of present time. It also refers to future actions within a few days of the point of reference, where there is at the present an intent not to perform the action. (AAAA.6i)

FA.02e.i $\acute{S}+t\acute{i}+k\grave{a}:+V+\grave{a}$ ii $nd+S'+k\grave{a}:+V+\grave{a}$
 iii $S+t\acute{a}+k\grave{a}:+V+\grave{a}$

The variants have normal distribution. This is used of all future time after the day of reference. (AAAA.6n)

D. Indicative Affirmative with Atemporal Reference : FA.03

FA.03a.i $S+a+V+i':t\acute{e}$ ii $S+a+V+i':t\acute{e}$
 iii $S+a'+V+i':t\acute{e}$

The third is a copular form used with high subjective prefixes, the second a copular used with low subjective prefixes, and the first pattern is found elsewhere. This indicates the action had been begun before a point earlier than the day before that of reference, and that at that point its results were still in effect. Independent, relative, and copular are found. (AAAA.3a)

FA.03b.i S+râ: +V+î:tè

This indicates the action had been begun and had results still in effect at a point in the past on the day of reference or that before it. Independent, copular, and relative exist. (AAAA.3b)

FA.03c.i S+V+î:tè ii S+V+î:tè

The latter is a copular used only with high subjective prefixes; the former is used in all other forms. This indicates that at the point of reference the action has been begun and has results still in effect. Independent, copular, and relative are used. (AAAA.3f)

FA.03d.i S+â+nâ+V+â

If a copular form exists, it is extremely rare. This refers to actions performed at an unspecified point in the past. (AAAA.5a)

FA.03e.i S+â+V+â ii S+â+V+â

The latter is copular, used with high-toned subjective prefixes; the former is used otherwise. The independent is uncommon, but copular and relative occur freely. This indicates completion of an action in the immediate past relative to the point of reference. It may also sometimes be used with apparently future reference in the apodoses of conditional sentences. (AAAA.5e)

E. Indicative Negative with Atemporal Reference : FA.04

FA.04a.i S+tî+â+'V+î:té ii nd+S+â+'V+î:té

iii S+ta+â+V+î:té

The third is, as usual relative, the second independent with subjective prefixes of Classes B, 1, 3, 4, and 9, the first used elsewhere. This refers to actions initiated before a point earlier

than the day before that of reference. (AAAA.4a)

FA.04b.i $\acute{S}+t\acute{i}+r\acute{a}:+V+i:t\acute{e}$ ii $nd+S+r\acute{a}:+V+i:t\acute{e}$
 iii $S+t\acute{a}+r\acute{a}:+V+i:t\acute{e}$

The variants have the normal distribution. This refers to actions begun before a point in the past on the day of reference or that preceding. (AAAA.4b)

FA.04c.i $\acute{S}+t\acute{i}+'V+i:t\acute{e}$ ii $\acute{S}+t\acute{i}+'V+i:t\acute{e}$
 iii $nd+S+'V+i:t\acute{e}$ iv $nd+S+'V+i:t\acute{e}$
 v $S+t\acute{a}+V+i:t\acute{e}$ vi $S+t\acute{a}+V+i:t\acute{e}$

The first, third, and fifth are used with high-toned stems, the second, fourth, and sixth with low. The fifth and sixth are relative, the third and fourth used as independent with subjective prefixes of Classes B, 1, 3, 4, and 9, and the first and second are independent used with other classes. This refers to actions begun before but having results still in effect at the time of reference. (AAAA.4f)

FA.04d.i $\acute{S}+t\acute{i}+a+n\acute{a}+V+a$ ii $nd+S+a+n\acute{a}+V+a$
 iii $S+t\acute{a}+a+n\acute{a}+V+a$

The variants have the distribution normal with negatives. This refers to actions which have never been performed. (AAAA.6a)

FA.04e.i $\acute{S}+t\acute{i}+a:+V+a$ ii $nd+S+a:+V+a$
 iii $S+t\acute{a}+a:+V+a$

The variants have normal distributions. This is equivalent to FA.04d, used of actions never having been performed, but is said to be rarer. It may perhaps represent a dialectal variant. (AAAA.6b)

progress at the time of reference. (AAAB.5c)

FA.05e.i S+ngí+V+'á ii S+ngí+V+a`

The latter is copular, the former relative and independent; an absolute exists. This indicates the possibility of the action's eventual performance exists at present. The copular is rare, the combination of núá and FA.09b being preferred. (AAAB.5d)

FA.05f.i S+ngí+kà:+V+a` ii S+ngí+kà:+V+a`
iii S+ngí+kà:+V+a`

The third is copular with high subjective prefix, the second relative or independent with high subjective prefix, the first used elsewhere. This is used of actions which will come to be possible in the future relative to the point of reference. Independent, copular, relative, and absolute are in use. (AAAB.5f)

G. Conditional Negative with Temporal Reference : FA.06

FA.06a.i S+ti+ngí+a+'V+íré ii nd+S+ngí+a+'V+íré
iii S+ta+ngí+a+V+íré

The variants have the distribution normally found with negatives. An absolute exists. This is used of actions earlier than the day before that of reference. (AAAB.2a)

FA.06b.i S+ti+ngí+râ:+V+íré ii nd+S+ngí+râ:+V+íré
iii S+ta+ngí+râ:+V+íré

The variants have normal distribution; an absolute exists. This refers to the day before that of reference. (AAAB.2b)

- FA.06c.i S̀+ti+ngí+V+íré[^] ii S̀+ti+ngí+V+íré^ò
 iii nd+S̀+ngí+V+íré^ò iv nd+S̀+ngí+V+íré^ò
 v S̀+ta+ngí+V+íré^ò

The fifth form is relative. The first and third are used with high-toned stems, the second and fourth with low. The first and second are independent used with subjective prefixes other than those of Classes B, 1, 3, 4, and 9, the third and fourth are used with those subjective prefixes. An absolute exists. This refers to past time on the day of reference. (AAAB.2c)

- FA.06d.i S̀+ti+ngí+rá:+V+à ii nd+S̀+ngí+rá:+V+à
 iii S̀+ta+ngí+rá:+V+á

The three have normal distributions. This is used of actions in progress at the time of reference. (AAAB.6c)

- FA.06e.i S̀+ti+ngí+V+á[^] ii nd+S̀+ngí+V+á[^]
 iii S̀+ta+ngí+V+á[^]

The variants have the usual distribution. This is used of actions impossible at the point of reference or actions which might not be

- FA.06f.i S̀+ti+ngí+kà:+V+á[^] ii nd+S̀+ngí+kà:+V+á[^]
 iii S̀+ta+ngí+kà:+V+á[^]
 iii S̀+ti+ngí+kà:+V+á[^] ii nd+S̀+ngí+kà:+V+á[^]
 iii S̀+ta+ngí+kà:+V+á[^]

The variants have normal distribution. This refers to possibilities which will come to exist in the future. (AAAB.6e)

H. Conditional Affirmative with Atemporal Reference : FA.07

- FA.07a.i S+ngí+a+V+i:té ii S+ngí+a+V+i:té

The latter is copular, the former relative and independent;

an absolute is used. This refers to actions possibly begun before a point earlier than the day before that of reference. (AAAB.3a)

FA.07b.i S+ngí+râ:+V+i:tè

This refers to actions begun before a point in the past on the day of reference or that before. Independent, copular, relative, and absolute are used. (AAAB.3b)

<u>FA.07c.i</u>	S+ngí+V+i:té	ii	S̄+ngí+V+i:tè
	iii S+ngí+V+i:'té	iv	S+ngí+V+i:té
	v S+ngí+V+i:tè	vi	S+ngí+V+i:tè

The first three are relative and independent, the other three copular. The third and sixth are used with basically low subjective prefix, the second and fifth with high subjective prefix and low stem, and the first and fourth with both subjective prefix and verb stem high. An absolute exists. This refers to actions begun before the time of reference having effects relevant at that point. (AAAB.3c)

FA.07d.i S+ngí+a+na+V+a

Independent, copular, relative, and absolute exist. This refers to actions performed at some unspecified past time. (AAAB.5a)

FA.07e.i S+ngí+a+'V+a

This is used of actions completed in the immediate past, but also seems at times to have present or future reference. Independent, relative, copular, and absolute occur. (AAAB.5b)

I. Conditional Negative with Atemporal Reference : FA.08

<u>FA.08a.i</u>	S+ti+ngí+a+'V+i:té	ii	nd+S+ngí+a+'V+i:té
	iii S+ta+ngí+a+V+i:té		

The variants have the normal negative distribution; an absolute

FA.09d.i $\acute{S}+k\grave{a}+V+\acute{e}$

This differs from FA.09b only in indicating a distance in space or time between desire, command, intention, etc., and the action proposed. It is hence more common after verbs of motion. (AABA.1c)

FA.09e.i $\acute{S}+k\grave{a}+V+\grave{a}$

This differs formally and functionally from FA.09c only in tone, the prefix -ka-, and indication of a distance in time or space between the point of reference and performance of the action. (ACAA.1b)

FA.09f.i $\acute{S}+k\grave{a}:+V+\grave{a}$ ii $\acute{S}+k\grave{a}:+V+\acute{a}$

The former is used with high verb stems, the latter with low. This is found only in contexts such as nyama cia úkaaruga 'meat for you to cook', where it alternates with FA.09b, FA.09c, FA.09d, FA.09e, and the infinitive (with or without prefix -ka:-). This differs from the similar usage of FA.09c in indicating the action is to take place a day or more after the time of reference. (ACAA.1c)

FA.09g.i $S+r\grave{o}:+V+\grave{a}$

This is used in strong wishes, often in formal curses and blessings. (AABA.1d)

K. Jussive Negative : FA.10

FA.10a.i $\acute{S}+t\grave{i}+k\grave{a}:+V+\acute{e}$ ii $nd+\acute{S}+k\grave{a}:+V+\acute{e}$

The latter is used with subjective prefixes of Classes B, 1, 3, 4, and 9, the former elsewhere. This serves to negate all uses of all jussive affirmative constructions (FA.09) found with regular stems. (AABA.2a)

L. Consecutive Affirmative : FA.11

FA.11a.i $\acute{S}+k\acute{i}+V+\grave{a}$

This is used as consecutive to any construction referring to action earlier than the day of reference. (ABAA.1a)

FA.11b.i $S+\acute{a}+'V+'á$

This is used of actions following actions in the past on the day of reference. (ABAA.1c)

FA.11c.i $\acute{S}+k\grave{a}+V+\grave{a}$

This is used of actions at the same time as the main verb. It is most common after habitual/continuatives with past reference. (ABAA.1d)

FA.11d.i $\acute{S}+V+\grave{e}$

This is identical in form with FA.09b, but because of the system of subdivision cannot be identified with it. It is used as consecutive in all future environments. (ABAA.1f)

M. Absolute Affirmative : FA.12

FA.12a.i $\acute{S}+\acute{a}+V+\hat{a}$

This refers to actions completed shortly before that of the independent verb. It is most common in temporal and conditional clauses. (ACDA.3a)

FA.12b.i $\acute{S}+V+i':t\grave{e}$

This is used of actions initiated before that of the main verb but with results still in effect. (ACDA.1a)

FA.12c.i $\acute{S}+k\acute{i}+'V+'á$

This is used of actions at the same time as the main verb. It is much used in temporal or conditional contexts, and also after verbs

involving perception to indicate the action perceived. (ACDA.3e)

FA.12d.i $\acute{S}+k\grave{u}+V+\grave{a}$

This is used of actions in progress at the time of the main verb. Though close in function to FA.12c, this is used in different environments, though these differences cannot be stated satisfactorily. (ACDA.3h)

FA.12e.i $\acute{S}+k\grave{a}+V+\grave{a}$

This is frequent in conditional constructions. Its time reference relative to the main verb is hard to determine. It is said, however, to be identical functionally with the absolute of FA.05e. (ACDA.3i)

FA.12f.i $\grave{S}+k\acute{i}+k\grave{a}:+V+\acute{a}$

Because of the second k the consonant of -kⁱ- is always realized voiced, according to Dahl's Law. The function of this construction is difficult to specify. It is used in conditional or temporal contexts, apparently of action performed immediately before the main verb. It is very rare and its function highly uncertain. (ACDA.3j)

N. Absolute Negative : FA.13

FA.13a.i $\acute{S}+t\acute{a}+n\grave{a}+V+\grave{a}$

This is used of actions which have not been performed or completed at the time of the main verb. (ACDA.4a)

FA.13b.i $\acute{S}+t\acute{a}+V+i\grave{i}:t\acute{e}$ ii $\acute{S}+t\acute{a}+V+i\grave{i}:t\grave{e}$

The former is used with high stems, the latter with low. This refers to actions not initiated and having results relevant at the time of the main verb. (ACDA.2a)

FA.13c.i $S+t\acute{a}:+k\grave{u}+V+\grave{a}$

Note the lengthening before -k^u-. This refers to actions at

the time of the main verb or in the near future relative thereto. (ACDA.4c)

FA.13d.i S+ta+V+é

This is used in conditional clauses of actions of whose possible non-performance the independent verb is a consequence. It is essentially equivalent to the absolute of FA.06e in function. (ACDA.5a)

O. Marginal Constructions : FA.14

FA.14a.i S+V+à

This occurs only after tí (negative equivalent of ní) and is a copular construction with no relative or independent. With tí it indicates the action will not be performed at any specified future time. It cannot belong with FA.01, as it is never used affirmatively, and its form prevents identification with FA.02. (ADAA.1b)

FA.14b.i S+V+á

This is similar in form to FA.09c, but cannot be identified with that construction, nor with FA.14a, despite similar function. This occurs only with ní, but is not copular. It serves as an emphatic future, with an implication of certainty or near command. It sometimes serves as affirmative to tí followed by FA.14a, but the behavior of the two prevents identification. (ADAA.1c)

Section 4 : Constructions with Habitual Stems

A. Arrangement and Labelling :

The presentation here is basically the same as that with constructions having regular stems. The system of labelling differs only in using B in place of A, to differentiate the habitual from the regular series. In this case one must recognize the subdivisions

It is used of habitual or continuous actions beginning at a specified point in the future. (BAAA.lh)

FB.01f.i $\acute{S}+k\acute{a}:+V-\grave{a}g+\grave{a}$

This is to FB.01e as FA.01g is to FA.01f, being used of habitual or continuous action at an unspecified time in the future. A relative exists, but the existence of a copular and the independence of this construction from FB.01e are uncertain. (BAAA.li)

C. Indicative Negative : FB.02

FB.02a.i $\acute{S}+t\acute{i}+\acute{a}+'V-\acute{a}g+\acute{a}$ ii $nd+\acute{S}+\acute{a}+'V-\acute{a}g+\acute{a}$
 iii $S+t\acute{a}+\acute{a}+V-\acute{a}g+\acute{a}$

The three variants have the normal negative distribution. This indicates habitual or continuous non-performance of an action earlier than the day before that of reference. (BAAA.2a)

FB.02b.i $\acute{S}+t\acute{i}+r\acute{a}:+V-\acute{a}g+\acute{a}$ ii $nd+\acute{S}+r\acute{a}:+V-\acute{a}g+\acute{a}$
 iii $S+t\acute{a}+r\acute{a}:+V-\acute{a}g+\acute{a}$

This is used of continuous action on the day before that of reference. The variants have normal distributions. (BAAA.2b)

FB.02c.i $\acute{S}+t\acute{i}:+k\grave{u}+V-\acute{a}g+\acute{a}$ ii $nd+\acute{S}+k\grave{u}+V-\acute{a}g+\acute{a}$
 iii $S+t\acute{a}:+k\grave{u}+V-\acute{a}g+\acute{a}$

The variants have normal distribution. Note the lengthening before -kū-. This is used of past continuous action on the day of reference. (BAAA.2d)

FB.02d.i $\acute{S}+t\acute{i}+'V-\acute{a}g+\acute{a}$ ii $nd+\acute{S}+'V-\acute{a}g+\acute{a}$
 iii $S+t\acute{a}+'V-\acute{a}g+\acute{a}$

The variants show normal distribution. This refers to presently

existing habits. (BAAA.2e)

FB.02e.i S'tí+kà:+V-ág+á̂ ii nd+S+kà:+V-ág+á̂
 iii S+tá+kà:+V-ág+á̂

The variants have normal distribution. This is used of continuous or habitual actions beginning in the future. (BAAA.2h)

D. Conditional Affirmative : FB.03

FB.03a.i S+ngí+a+'V-ág+á̂ ii S+ngí+a+'V-ág+á̂

The latter is copular, the former relative and independent. As with all conditionals, an absolute also exists. This is used of possible habitual or continuous action earlier than the day before that of reference. (BAAB.1a)

FB.03b.i S+ngí+rá:+V-ág+á̂ ii S+ngí+rá:+V-ág+á̂

The latter is copular, the former independent and relative. An absolute exists. This refers to continuous action on the day before that of reference. (BAAB.1b)

FB.03c.i S+ngí+'V-ág+á̂ ii S+ngí+V-ág+á̂
 iii S+ngí+V-'ág+á̂ iv S+ngí+V-ág+á̂

The fourth is copular with high subjective prefix, the third copular with low subjective prefix, the first and second independent and relative with low and basically high subjective prefix, respectively. An absolute exists. This refers to presently possible habitual or continuous action. (BAAB.1c)

FB.03d.i S+ngí+kà:+V-ág+á̂ ii S+ngí+kà:+V-ág+á̂
 iii S+ngí+kà:+V-ág+á̂

The third is copular used with high subjective prefix, the second

of Class A. The former is used with no objective prefix or that of Class A. This is imperative, of habitual or continuous actions. If addressed to more than one the enclitic î occurs. (BABA.1a)

FB.05b.i $\acute{S}+V-\acute{a}g+\grave{e}$

This is identical in function (indication of command, desire, purpose, use with nî and î, etc.) with FA.09a, differing only in referring to habitual or continuous action. (BABA.1b)

FB.05c.i $\acute{S}+V-\acute{a}g+\acute{a}$

This is identical with FA.09c in function, except in referring to habitual or continuous action. (BCAA.1a)

FB.05d.i $\acute{S}+k\grave{a}+V-\acute{a}g+\acute{e}$

This is identical in function with FB.05b except in implying a distance in time or space between command, suggestion, etc., and the performance of the action. (BABA.1c)

FB.05e.i $\acute{S}+k\grave{a}+V-\grave{a}g+\grave{a}$

Except in habitual or continuous reference this is identical with FA.09e. (BCAA.1b)

FB.05f.i $\acute{S}+k\grave{a}:+V-\acute{a}g+\acute{a}$ ii $\acute{S}+k\grave{a}:+V-\acute{a}g+\acute{a}$

The former would occur with high-toned verb stems, the latter with low. This is identical with FA.09f, except in referring to habitual or continuous action. (BCAA.1c)

FB.05g.i $S+r\grave{o}:+V-\grave{a}g+\grave{a}$

This is found in curses, blessings, and strong wishes, of continuous or habitual actions. (BABA.1d)

G. Jussive Negative : FB.06

FB.06a.i $\acute{S}+t\grave{i}+k\grave{a}:+V-\acute{a}g+\acute{e}$ ii $nd+\acute{S}+k\grave{a}:+V-\acute{a}g+\acute{e}$

The latter is used with subjective prefixes of Classes B, 1, 3, 4, and 9, the former elsewhere. This negates all affirmative jussives with habitual/continuative stems. (BABA.2a)

H. Consecutive Affirmative : FB.07

FB.07a.i $\acute{S}+k\grave{a}+V-\acute{a}g+\grave{a}$

This refers to actions performed at the same time as that of the main verb. It differs from FA.11c only in referring to habitual or continuous action. In a series of consecutives, this normally occurs only once, succeeding verbs usually showing FA.11c. (BBAA.1a)

I. Absolute Affirmative : FB.08

FB.08a.i $\acute{S}+k\grave{i}+V-\acute{a}g+\grave{a}$

This is used of continuous action at the same time as the main verb. It is normally used of actions accompanying another performed by the same person. (BCDA.1a)

J. Marginal Constructions : FB.09

FB.09a.i $S+V-\acute{a}g+\grave{a}$

This is used only after tí. It differs from FA.11a only in the habitual or, more often, continuous, reference of the stem. (BDAA.1a)

FB.09b.i $S+V-\acute{a}g+\acute{a}$

Although this is not copular, like FB.09a, it is used only after ní. It differs functionally from FA.11b only in its continuative (almost never habitual) function. (BDAA.1b)

APPENDIX IV: MWIMBI CONSTRUCTION INVENTORY

Section 1 : Introductory

A. Sources :

Some dialects of the so-called "Meru" group have been studied to some extent, but Mwimbi is not one of them. The data underlying this description therefore necessarily are derived from my own work with speakers of the dialect. It is fortunate, from the point of view of completeness, but unfortunate from that of consistency, that it was impossible to base this on the speech of a single informant. It is also fortunate or unfortunate, depending upon viewpoint, that the informants consulted were not linguistically uniform.

My first informant was Mr. Eliphaz J. Mburea. A speaker of the sub-dialect "Upper Mwimbi", from Chogoria, he was an excellent informant and a friend who has helped me in many other ways, linguistic and otherwise. Of the materials I obtained from him I have used here mainly a set of spontaneously dictated texts. In discussing these with him I also obtained much information which otherwise might not have been acquired.

After Mr. Mburea's return to Kenya, I worked with Mr. Canisius Kerugara, a "Lower Mwimbi" speaker from the area of Iruma. Besides textual materials, I obtained from him translations into Mwimbi of the verbal questionnaire used with the other dialects, and through direct questioning was able to solve various problems of form and function. Before I had completed my investigations, however, he too returned to Kenya.

At a later point I was able to finish the work begun with Mr. Kerugara, with the help of Miss Margaret Karemi, an "Upper Mwimbi" speaker, also from Chogoria. From her I obtained translations of the remainder of the questionnaire, and, through direct elicitation, solved certain remaining difficulties and obtained some constructions where the pattern of the data previously obtained indicated the probable existence of forms as yet unattested.

B. Presentation :

The Upper and Lower sub-dialects, though they agree in most particulars, are not identical. Recent external influences (in the former from Protestant missions and the Kikuyu, in the latter from the Catholic missions and the "Meru" of Imenti) have only intensified the differences. The most noticeable difference in the verbal system is in the subjective and objective prefixes. The classes differentiated and the forms of certain prefixes differ considerably between the two. Other formal and functional differences exist, but none are so great as to warrant treating the two separately. Where a construction or use thereof seems to be peculiar to one of the sub-dialects, the fact will be noted. In most such cases, however, the distribution could easily result from chance omission of the item from the data on one of the two.

Section 2 : Inventory of Constituent Elements

A. Discussion :

The following list gives, without tone-marking, all elements found in the constructions below, arranged in order of occurrence in

the construction. Elements in the same section are mutually exclusive and ordered alphabetically. No attempt is made to determine morphologic affiliations, as data from the analysis of the constructions would be necessary for this. See Chapter IV. The elements are listed, their position in the construction and any external effects noted. Function and tone, both variable and uncertain, are omitted.

B. Subjective Prefixes :

1. S- : This symbolizes all subjective prefixes; the list is given in Appendix V. These are always initial, and have no external effects.

C. Post-subjective Pre-conditional Prefixes :

1. -rĩ:-/-ĩ:- : The difference between the two forms seems to be either sub-dialectal or else stylistically conditioned. There is no doubt that the two are non-contrastive variants of the same element. In combination with the Class A subjective prefix either gives the shape ndĩ:-.

2. -tĩ- : The Class A subjective prefix, when immediately preceding this element, has the form n-. If this immediately precedes a vowel, the ĩ is normally lost or assimilated to the following vowel, though its tone is retained.

D. Conditional Prefix :

1. -ngĩ- : The Class A subjective prefix, immediately before this element, seems to have the form ndĩ-.

E. First Post-conditional Order :

1. -a- : This combines with -tĩ- to form -ta:-. An immediately

preceding Class A subjective prefix has the form nd-.

2. -a:- : The existence of this as a separate element is uncertain. It has been recognized as existing in the inventory of morphologic unities. However, it occurs only after -tĩ-, with which it coalesces to form -ta:-, indistinguishable from the result of the coalescence of -tĩ-a-. It is, however, tentatively considered best to include it.

3. -ka- : A preceding Class A subjective prefix has the form n-.

4. -kĩ- : A preceding Class A subjective prefix has the form n-.

5. -kũ- : A preceding Class A subjective prefix has the form n-.

6. -ra:- : The Class A subjective prefix normally has the form n- when it precedes this prefix, giving nda:-. Some speakers, however, seem to use ndĩ- (giving ndĩra:-) instead.

F. Second Post-conditional Order :

1. -ka:- : An immediately preceding Class A subjective prefix has the form n-.

G. Third Post-Conditional Order :

1. -na- : This never is the only non-pronominal prefix in a construction. It has no external effects.

2. -ro:- : In combination with an immediately preceding Class A subjective prefix this is realized as ndo:-.

H. Objective Prefixes :

1. -0- : This symbolizes all objective prefixes. For the inventory, see Appendix V. These immediately precede the verb stem. If the Class A subjective prefix immediately precedes any objective prefix except that of Class B, it has the form ndĩ-. With the objective

prefix of Class B, it has the form n-.

I. Verb Stems :

1. -V- : This symbolizes all regular stems. The list is far too long for complete presentation. An immediately preceding Class A subjective or objective prefix has the form n-. For other external effects see the discussion of suffixes.

2. -V-ag- : This symbolizes all habitual/continuative stems, which differ from the regular in the presence of the stem-formant -ag-. This is normally final in the stem, but usually precedes the stem-formants -ŷr-, -i-, and -w-. It has the same external effects as a regular stem.

J. Final suffixes :

1. -a : This is found finally, without external effects.

2. -e : This is final, and has no external effects.

3. -ŷ:te : This is normally final. If the stem-formants -i- or -w- occur, they are realized, however, between the t and the vowel e. If the vowel in the syllable immediately preceding this is e or o, where these do not result from coalescence of ĩ or ũ in the stem with a prefixed vowel, this is realized as -e:te.

4. -ire : This is final. If -i- or -w- occurs as a stem-formant in the stem to which this is suffixed, however, it is realized not before it but between r and e.

Section 3 : Constructions with Regular Stems

A. Arrangement and Labelling :

The variants of each construction are given, together with a brief

statement of function. Copulars and relatives are not given separately; if their form differs from that of the independent it is included in the listing of variants. The existence of relatives is mentioned where appropriate. For the copulars, it is not enough to state that a copular exists. One must in Mwimbi specify whether it can be used with ní, kâ, or both. Both of these proclitics are used with copulars, but not all copulars can be found with both. Absolute forms of all conditionals exist. However, they are not discussed separately, nor are their forms given. The subdivision of the systems here differs from that in the body of the thesis; reasons for this have been discussed there. Here the categories are arbitrarily based on function, being intended to enforce maximum differentiation of constructions.

Each construction has a label consisting of GA (G distinguishes the Mwimbi from other series of constructions, A indicates that the regular stems are involved), this being followed by a number indicating the subdivision. Constructions in the same subdivision are distinguished by a lower-case letter, ordered by time reference, where this exists. Variants of a construction are distinguished by added small Roman numerals. After discussion of each construction is given the label of the endosyntactic unity including it, for easy cross-reference. The following subdivisions are made:

GA.01	:	Indicative	affirmative	with	temporal	reference
GA.02	:	"	negative	"	"	"
GA.03	:	"	affirmative	"	atemporal	"
GA.04	:	"	negative	"	"	"

- GA.05 : Conditional affirmative
 GA.06 : " negative
 GA.07 : Jussive affirmative
 GA.08 : " negative
 GA.09 : Consecutive affirmative
 GA.10 : Absolute affirmative
 GA.11 : " negative
 GA.12 : Marginal constructions

B. Indicative Affirmative with Temporal Reference : GA.01

GA.01a.i S+a+V+íré[^]

This refers to the distant past. The distinction between this and GA.01b is uncertain, and often they may apparently be synonymous. This is more common, and would normally be used of any time more than a few days before the point of reference. Independent, relative, and copular with ní (and rarely ká) are found. (AAAA.1a)

GA.01b.i S+râ:+V+íré^è

This is very rare in text. It definitely overlaps with GA.01a in time, but seems restricted to events earlier than the day of reference but not more than a few days before. Independent, relative, and copular with ní and ká occur. (AAAA.1b)

GA.01c.i S+V+íré^é ii S+V+íré^è

The latter is relative, the former used elsewhere. This refers to past events on the day of reference. Independent, relative, and copular with ní and ká are used. (AAAA.1d)

GA.01d.i S+ku+V+a^à

This normally refers to present action. It is also used of actions in the immediate future, if the intent to perform the action is present. Independent, relative, and copular with ní and ká are used. (AAAA.5g)

GA.01e.i S+rí:+V+á

Note the tonal reversal of the verb stem. No relative or copular exists. This occurs mainly in questions and answers thereto, but also in statements having an element of certainty almost amounting to command. Except for this semantic element and its more frequent use in questions, this is essentially the same in reference as GA.01d, referring to present and near-future action (the latter reference is more common with this than with GA.01d). (AAAA.5h/AAAA.5i)

GA.01f.i S+ká:+V+á ii S+ká:+V+'á

The latter is relative, the former used elsewhere. This refers to any action in the future relative to the time of reference. Independent, relative, and copular with ká occur. The use of the copular with ní is identified as indicating Kikuyu influence. (AAAA.5j)

C. Indicative Negative with Temporal Reference : GA.02

GA.02a.i S+tá:+V+íré

Note the contraction of the prefixes. This refers to any time before the day of reference. A relative occurs. (AAAA.2a)

GA.02b.i S+ti'+V+íré ii S+ti'+V+íré

The latter is relative, the former used elsewhere. This refers to the past on the day of reference. Independent and relative are found. (AAAA.2b)

GA.02c.i S+ti'+ku+V+á

This refers to present or immediate future action intended at the present. Independent and relative are found. (AAAA.6i)

GA.02d.i S+tí+V+à

This is the normal future negative, referring to all future time. Independent and relative exist. (AAAA.61)

GA.02e.i S+tí+kâ:+V+à

This refers to actions which will never be performed. Independent and relative exist. (AAAA.6n)

D. Indicative Affirmative with Atemporal Reference : GA.03

GA.03a.i S+à+V+i:tê

This indicates the action had been performed or begun before a point more than a day before the time of reference, and its results were still relevant at that point. Independent, relative, and copular with ní and kâ are found. (AAAA.3a)

GA.03b.i S+râ:+V+i:tê

This is used of actions begun before a point in the past on the day of reference or up to two days before. Independent, relative, and copular with ní have been found; the copular with kâ probably also exists, but no example has been found. (AAAA.3b)

GA.03c.i S+V+i:tê

This indicates the action has been performed before the point of reference and has results still in effect. Independent, relative, and copular with ní and kâ exist. (AAAA.3f)

GA.03d.i S+râ:+V+á

This refers to action performed at some unspecified time in the past. No relative or copular has been found. (AAAA.5b)

GA.03e.i S+ku^ˆ+V+a^ˆ

This is identical with GA.Old in form. In function it seems to resemble both GA.03c and GA.03f, but its function is not clear enough to allow a definite statement of its differences from those constructions. Independent, relative, and copular with ka^ˆ only are found. (AAAA.5d)

GA.03f.i S+a^ˆ+V+a^ˆ

This is used of actions completed in the very recent past. It is also used rarely with apparently future reference in the apodoses of conditional sentences. Independent, relative, and copular with ka^ˆ are used; the copular with ni^ˆ is used only under Kikuyu influence. (AAAA.5e)

E. Indicative Negative with Atemporal Reference : GA.04

GA.04a.i S+ta^ˆ:+V+i^ˆ:te

Note the contraction. This is used of actions not begun before a time in the past relative to the point of reference and not having results in effect at that time. A relative exists. (AAAA.4a)

GA.04b.i S+ti^ˆ+V+i^ˆ:te^ˆ

This refers to actions begun before and still in effect at the point of reference. A relative exists. (AAAA.4f)

GA.04c.i S+ti^ˆ+ra^ˆ:+V+a^ˆ

This is used of actions never performed. It is equivalent to one of the functions of GA.04d; most informants prefer the latter, and this is sometimes rejected. It has been found at least once in Upper Mwimbi textual matter. A relative is used. (AAAA.6c)

GA.04d.i S+tá:+V+à

Note the contraction. This may refer to actions never performed, like GA.04c. It may also be used of actions not completed in the immediate past. A relative exists. (AAAA.6b/AAAA.6g)

GA.04e.i S+tí+kù+V+à

This is identical with GA.02c in form. It is used as negative to GA.03e, as a perfective apparently overlapping with GA.04b and GA.04d. Only one example has been found, unfortunately, and that might be an "emphatic negative" with affirmative function. Its existence and function/meaning are uncertain. A relative would probably exist. (AAAA.6d)

F. Conditional Affirmative : GA.05

GA.05a.i S+ngí+à+V+íré

This rare construction indicates the possibility of the action existed more than a day before the point of reference. Only one informant has used it; GA.05b is more common. Independent, relative, copular with ní(not ká), and of course absolute exist. (AAAB.1a)

GA.05b.i S+ngí+'rá:+V+íré

This refers to hypothetical action in the past on the day of reference and a few days before. It may possibly also refer to the more remote past. Independent, relative, copular with ní, and absolute occur. (AAAB.1b)

GA.05c.i S+ngí+'V+à

This refers to actions possible at present or future actions whose performance might be determined at present. Independent, relative, copular with ní and absolute exist. (AAAB.5d)

GA.05d.i S+rí:ngí+V+a

ii S+i:ngí+V+a

The former is Lower, the latter Upper Mwimbi. They are clearly variants of the same construction. This seems to refer to possible action in the future relative to the point of reference, but its exact function is unclear. It is most common in text in remote-past contexts. Independent, relative, absolute, but no copular exist. (AAAB.5e)

G. Conditional Negative : GA.06

GA.06a.i S+ti'ngí+a+V+íré

Tones are conjectural. No example occurs in recordings. This occurs only in written data submitted by the Upper Mwimbi informant who was the sole authority for GA.05a. It may not be common to all of Mwimbi. It refers to action in the past more than a few days before the point of reference. Independent, relative, and absolute occur. (AAAB.2a)

GA.06b.i S+ti'ngí+râ:+V+íré

This is used of past action on the day of reference and at least a few days before. It may possibly be used also of more remote past time. Independent, relative, and absolute occur. (AAAB.2b)

GA.06c.i S+ti'ngí+V+a^

This refers to impossible or possibly non-performed action at the point of reference or in the future. Independent, relative, and absolute exist. (AAAB.6d)

H. Jussive Affirmative : GA.07

GA.07a.i V+a^

ii O+V+e^

The latter is used if any objective prefix other than that of

in time or space between the command, proposal, etc., and the action proposed. It is more common after verbs of motion. (AABA.1c)

GA.07e.i S+ka'+V+a'

This differs in function from GA.07c as GA.07d differs from GA.07b, in indicating a distance in time or space between desire or purpose and the action's performance. (ACAA.1b)

GA.07f.i S+rô:+V+a'

This expresses strong wishes, especially in formulae of cursing or blessing. (AABA.1d)

I. Jussive Negative : GA.08

GA.08a.i S+ti'+ka:+V+'é

This serves as negative to all the affirmative jussives found with regular stems. (AABA.2a)

J. Consecutive Affirmative : GA.09

GA.09a.i S+ki'+V+a'

This is used of actions following verbs with time reference equivalent to that of GA.01a, of more than a day or so before the point of reference. (ABAA.1a)

GA.09b.i S+a'+V+'a'

This is used as consecutive referring basically to the past on the day of reference and up to a few days before. It may also, however, be used in remote past contexts as equivalent to GA.09a. (ABAA.1c)

GA.09c.i S+ka'+V+a'

This is used of actions performed at essentially the same time as that of the main verb. It is most common after habitual/continuative

verbs. (ABAA.1d)

GA.09d.i S+V+è

This is formally identical with GA.07b. It is not certain whether the tonal variations noted there occur here as well, but it is probable that they do. This is used as consecutive of actions following any verb with future reference, if affirmative. (ABAA.1f)

GA.09e.i S+V+á

This is formally identical with GA.07c. It is used as consecutive to any negative construction with future reference, contrasting with GA.09d, used only after affirmatives. (ABAA.1g)

K. Absolute Affirmative : GA.10

GA.10a.i S+â+V+â

This is used of actions completed shortly before that of the independent verb. (ACDA.3a)

GA.10b.i S+V+i:tè

This refers to actions having been begun and having results still in effect at the time of the main verb. (ACDA.1a)

GA.10c.i S+râ:+V+á

This refers to actions performed an indefinite time before that of the independent verb. (ACDA.3b)

GA.10d.i S+kũ+V+â

The temporal or aspectual relationship with the time of the independent verb is in this case impossible to identify with certainty, but resembles that of GA.03e to the point of reference. (ACDA.3d)

GA.10e.i S+kũ+V+a`

This refers to action in progress at the time of the main verb. It is formally identical with GA.10d. The two have been separated here only because their functions are equivalent, respectively, to those of the independents GA.01d and GA.03e, which have to be separated under the system of subdivision here adopted. (ACDA.3h)

GA.10f.i S+kĩ+V+'á

This refers to actions at the same time as that of the verb of the independent clause. It is much used in temporal and conditional environments. It is also found after verbs of perception, indicating the action perceived. (ACDA.3e)

GA.10g.i S+ka+V+a`

This is frequent in conditional clauses. It seems to be used of actions to be performed after the time of the independent verb, but this is most uncertain. (ACDA.3i)

GA.10h.i S+kĩ+ka^:+V+'á

The prefix -kĩ- is always realized as -gĩ- in this construction, in accordance with Dahl's Law. The status and function of this are uncertain. It is very rare, and is not attested for Lower Mwimbi, though it may be used there. Like GA.10f, it has been found used apparently of the object of a verb of perception, and also as the verb of a temporal clause. Its exact relative time reference is difficult to determine, but it may refer to action completed before that of the main verb. No truly satisfactory description is possible at present. (ACDA.3j)

L. Absolute Negative : GA.11

GA.11a.i S+ti'+V+i:té

This is used of actions not initiated before the time of the main verb having results still in effect. (ACDA.2a)

GA.11b.i S+ti'+kù+V+a

This refers to action not performed before the independent verb. Its exact reference is somewhat uncertain. Compare GA.04e. (ACDA.4b)

GA.11c.i S+ti'+kù+V+a

Though formally identical with GA.11b, the two are separated because of their formal and functional parallelism with GA.02c and GA.04e, respectively. This is used of actions not performed at the same time as the main verb. (ACDA.4c)

M. Marginal Constructions : GA.12

GA.12a Constructions with -nâ-

There are two consecutives which differ from consecutives described above formally in the addition of -nâ-. One of the two (GA.09b so augmented) is rare, and seems identical with GA.09b functionally except for greater emphasis. The augmented form of GA.09a, however, is very common. It may be used after constructions of any temporal reference. It seems to be more emphatic, and perhaps indicates (in each construction) that the following action is somehow the result of that which precedes. (ADAA.1d)

GA.12b Constructions with -rô:-

Certain of the above constructions (GA.02e, GA.03d, GA.04d, and GA.08a are attested) have augmented variants with -rô:- following

all but objective prefixes. The augmented construction in each case refers not to a specific time, but to an indefinite time, either past or future. Most such constructions are negative. One augmented affirmative construction was found in Lower Mwimbi, but later rejected by an Upper Mwimbi informant. (ADAA.1d)

Section 4 : Constructions with Habitual Stems

A. Arrangement and Labelling :

The method of presentation here is basically the same as that with constructions having regular stems. The system of labels differs only in using B after G instead of A, to differentiate habitual from regular constructions. These divisions are made:

- GB.01 : Indicative affirmative
- GB.02 : " negative
- GB.03 : Jussive affirmative
- GB.04 : " negative
- GB.05 : Consecutive affirmative
- GB.06 : Absolute affirmative

B. Indicative Affirmative : GB.01

GB.01a.i S+à+V-'áǵ+á ii S+à+V-'áǵ+á

The latter is copular, the former relative and independent. The copular is found with ní and ká. This is used of habitual or continuous action in the past more than a few days before the point of reference. (BAAA.1a)

GB.01b.i S+râ:+V-àǵ+à

This fairly rare construction is used of continuous (sometimes habitual) action on the day before that of reference and one or two days before. Independent, relative, and copular with ní and ká occur. (BAAA.1b)

GB.01c.i S+kũ+V-àg+a`

This refers to continuous past actions on the day of reference. Independent, relative, and copular with nĩ and kâ occur, but the copular with nĩ is rare. (BAAA.1d)

GB.01d.i S+rĩ:+V^x-àg+a`

Note the tone reversal in the stem. Independent and relative, but no copular, exist. Like GB.01c this refers to past continuous action on the day of reference. It seems to be used when an item other than the verb is to be emphasized, as well as in questions and answers, like GA.01e. (BAAA.1e)

GB.01e.i S+V-'àg+a`

This indicates present existence of a habit or custom. Independent, relative, and copular with nĩ and kâ are used. (BAAA.1f)

GB.01f.i S+kâ:+V-àg+a` ii S+kâ:+V-àg+a`

The latter is relative, the former used elsewhere. This refers to habitual action commencing in the future. No copular has been found, but probably at least the copular with kâ may occur. (BAAA.1h)

C. Indicative Negative : GB.02

GB.02a.i S+tâ:+V-àg+a`

Note the contraction. This refers to habitual or continuous action earlier than the day of reference. A relative exists. (BAAA.2a)

GB.02b.i S+tĩ+kũ+V-àg+a`

This refers to past action on the day of reference, if continuous. A relative form is found. (BAAA.2d)

GB.02c.i S+ti+V-ag+a

This indicates present non-existence of a habit, present existence of a habit of non-performance of the action, or future habitual or continuous non-performance of an action. A relative exists as well. (BAAA.2e/BAAA.2f)

D. Jussive Affirmative : GB.03

GB.03a.i V-ag+a ii O+V-ag+e

The latter is used with objective prefixes other than that of Class A, the former with no objective prefix or that of Class A. This is imperative. It differs from GA.07a only in the habitual or continuous action indicated by the stem. (BARA.1a)

GB.03b.i S+V-ag+e

This differs from GA.07b only in its habitual/continuative reference. It is otherwise identical in usage. (BABA.1b)

GB.03c.i S+V-ag+a

This is identical with GA.07c except in habitual/continuative reference. (BCAA.1a)

GB.03d.i S+ka+V-ag+e

This is identical with GA.07d except in habitual/continuative function. It differs from GB.03b only in indicating distance in time or space between point of reference and action proposed. (BABA.1c)

GB.03e.i S+ka+V-ag+a

This is the habitual/continuative equivalent of GA.07e. It differs from GB.03c only in indicating a distance in time or space between the preceding verb and the action proposed. (BCAA.1b)

GB.03f.i S+ró:+V-àg+a`

This is used of habitual or continuous action in strong wishes, especially curses and blessings. (BABA.1d)

E. Jussive Negative : GB.04

GB.04a.i S+ti+kà:+V-ág+é

This serves to negate all habitual/continuative jussive affirmatives. (BABA.2a)

F. Consecutive Affirmative : GB.05

GB.05a.i S+ka+V-àg+a`

This refers to habitual or continuous actions at the time of the main verb. In a series of consecutives it may occur only once, normally, following verbs showing GA.09c. (BBAA.1a)

G. Absolute Affirmative : GB.06

GB.06a.i S+ki'+V-'ág+a`

This is used of continuous or habitual actions at the same time as that of the independent verb. It is not often found in temporal or conditional clauses, but is most frequently used of actions accompanying another performed by the same person. (BCDA.1a)

GB.06b.i S+V-àg+a`

This resembles GB.06a in temporal or aspectual reference. The difference in function between the two cannot satisfactorily be specified. (BCDA.1b)

Notes to Appendix IV:

1. The term "monosyllabic stem" as used here does not mean, as it is often taken to mean, stems which, together with the final suffix -a, form a single syllable, as Swahili -l-a 'eat'. It refers rather to stems which, without final suffix, are a single syllable, as -rúg- 'cook'.

APPENDIX V: PRONOMINAL OR CONCORDANT PREFIXES

Section 1 : Introductory

A. General :

All four dialects include a number of sets of nouns, distinguished partly by prefixed elements and partly by syntactic behavior. The significance of this for present purposes lies in the fact that various other parts of speech, and specifically verbal constructions, include as obligatory or sometimes optional constituents certain classes of elements, and that the particular member of each set which may appear in the constructions' constructs is determined syntactically by the set or class to which the noun to which the word or construct refers happens to belong. In the verb, specifically, every construction other than the imperative (AABA.la and BABA.la) must necessarily include a member of the set of subjective prefixes, choice being determined by the set or class to which the noun serving as subject to the verb belongs. Any verbal construction may optionally include an objective prefix, which is similarly determined by the class of the noun which is the verb's object.

These class constituents, unlike that of the negative prefixes, were not specified in the discussion of morphologic unities nor in the patterns given in the construction inventories. One reason for this was a very practical one: the number of members in each class constituent would have made specification most unwieldy. Even in the case of the Kamba subjective prefixes (the smallest of the sets in question) there are seventeen members. In the objective prefixes

of one variety of Mwimbi (the largest such series) there are twenty-one distinctions made. Another reason, however, is that these elements do not represent morphemes limited to verbal inflection, except for one member of each set of objective prefixes. With the exception of the reflexive objective prefix (Class R), all such elements are allomorphs of "concordant morphemes", which have other allomorphs occurring with most parts of speech: noun prefixes, adjective prefixes, pronominal and possessive prefixes, independent pronouns, and so forth. Thus, though these allomorphs occur as part of the verb, as constituents of verbal constructions, they are far more closely connected with the nominal than with the verbal system.

It therefore seemed most appropriate to present these elements separately. In the following each set of elements will be presented, showing the forms for all four dialects together but separating objective prefixes from subjective prefixes. There are in each case two series of subjective prefixes, one "relative" and one "independent". The distribution of these two series varies from dialect to dialect; discussion of this point will be given later. The two types of subjective prefix will also be separated from one another.

It will be noted that for each series of prefixes five dialectal forms, rather than four, will be given. The reason for this is that the two varieties of Mwimbi investigated, Upper and Lower Mwimbi (see Appendix IV), differ from one another mainly in the number of

prefixes distinguished and in the form of certain elements. The difference here is great enough to justify separate treatment of the two sub-dialects.

B. Nominal Reference of the Pronominal Prefixes :

The number of formally distinct prefixes in in each case smaller than the number of distinctions made for nominal items. Also, in many cases items formally identical in the noun govern different subjective and objective prefixes, and vice-versa. In each dialect there is at least some such formal overlap. One could simply state the forms distinguished in the verbal prefixes in each series, but this would give a result with little or no morphologic validity. However, it is often difficult to determine the number of morphemes represented by a single form.

To base conclusions as to morphologic affiliation on the distinctions made in a single series of allomorphs is, in the situation, clearly incorrect. Whichever series one chose, there would occur not only series which failed to recognize distinctions made in that chosen, but also series showing distinctions not found there. This is true whether one takes the longest or the shortest series of allomorphs in any dialect as the base. The most satisfactory criterion for present purposes seems to be that if, in a given dialect, a distinction in form is made anywhere except in the noun, that distinction should be recognized as structurally valid. If two forms are used to refer to two sets of nouns in the adjective, then even if the forms used to refer to the nouns in these sets in

possessives, demonstratives, subjective prefixes, and so forth are in all cases identical with one another, two morphemes are recognized, and the single forms in each series other than that of the adjectival prefixes is treated as representing allomorphs of not one morpheme, but two. Similarly, if no distinction is made anywhere but in the series of objective prefixes, two morphemes are recognized even in series which do not make any formal distinction between their allomorphs.

Besides the first person singular (Class A), first person plural (Class AA), second person singular (Class B) and second person plural (Class BB), which do not refer to nouns and for which only pronominal, subjective and objective, and perhaps (depending upon interpretation) adjective prefixes are found, and the reflexive (Class R), which is peculiar to the objective prefix series, and indicates only that the object of the verb is identical with the subject, Kikuyu distinguishes 14 concordant morphemes, Kamba 13, Embu and Upper Mwimbi 15, and Lower Mwimbi 16. These, it should be noted, are the morphemes distinguished outside the series of noun prefixes. While the series of prefixes found with nouns coincides to a large extent with that found with adjectives in form, there are problems there not found with the adjective. There are a number of formally differing sets of nouns which govern the same set of allomorphs of concordant morphemes elsewhere. The exact number of subdivisions one must recognize in the various sets of nouns sharing the same concords, and the

extent to which these should be recognized as having separate morphemic status, is a problem by no means insignificant.

However, it seems clear that the number of morphemes recognized in the series of noun prefixes has no necessary bearing upon the number of concordant morphemes used with adjectives, pronouns, and verbs. That number is in each dialect readily determined by the simple criterion stated.

It is, however, necessary to specify to which of the various formally differentiated sets of nouns the sets of allomorphs of concordant morphemes used elsewhere refer. It is here, even more than in form, that dialectal differences occur.

The references of Classes A, AA, B, BB, and R have already been stated. All of these, and particularly Class R, are distinct from the others in that there are no nouns to which they specifically refer. The class of adjectives and other items referring to these is determined entirely by the speaker, the person or item addressed, or in the case of Class R the class of the subject of the verb. For the others, however, detailed specification must be made.

All four dialects include Classes 4, 6, 7, 12, 13, and 15, all of which are quite consistent in form and reference. Class 4 is used of nouns with prefixed mĩ-, Class 6 of nouns with prefix ma-, Class 7 of nouns with prefix kĩ-, Class 12 of nouns with prefix tũ-, Class 13 of nouns with prefix ka-, and Class 15 of nouns with prefixed kũ-. In the case of Class 15 there is some doubt as to

whether all nouns with prefix kũ- should be considered to have the same prefixal morpheme and belong to the same class, but nowhere is there any formally based argument against recognition of these nouns as a single class, and by the criterion established above there is no reason to recognize more than one concordant morpheme outside the noun. In all these cases, needless to say, variant forms of the prefixes in question occur, but these are in all cases phonologically conditioned and completely predictable.

Classes 5 and 16 are also common to all five forms of Thagicũ, all of which agree in their reference. These two agree with only one set of nouns. In the case of Class 5, there is a certain amount of doubt as to whether one should recognize more than one set of nouns to which the concordant morpheme refers. In Kikuyu, nouns to which this concordant morpheme refers may have as prefix i-, ĩ-, or ri-. The former is used only before consonant-initial stems, the latter two only before vowel-initial stems. To this extent there is conditioning. The forms with initial r, however, are not distributed in any predictable pattern. It is clear that with older stems ri- is used, while ĩ- is found mainly with fairly recent derivatives, probably on the analogy of adjectival and pronominal prefixes. However, it is difficult to decide whether in this situation one should recognize one class of nouns, two, or even three. In Embu and Mwimbi the situation is identical, except that the forms are ĩ-, ĩ-, and ri-, respectively, in those dialects. In Kamba the phonetic shifts resulting from loss of r and g have

led to a still more complex situation, the forms corresponding to the Kikuyu prefixes being ĩ-, ĩ-, and i-/sy- respectively, the last two being variants conditioned by the following vowel. The most complex feature of the Kamba situation is that all these may be used before apparently vowel-initial stems. However, all nouns to which the Class 5 concordant morphemes in all dialects refer have prefixes, and all such prefixes can be shown to be somehow historically connected, though the connection is most complex. With Class 16 there is also an interdialectal formal difference in the prefix of the nouns indicated, but here the differences are completely regular and predictable. There is but one noun in each dialect to which this concordant morpheme refers, this being the word for 'place', Kikuyu hàndũ, Kamba and Embu vàndũ, Mwimbi àntũ.

Classes 1, 2, 3, 9, and 10 are also common to all sets of concordant morphemes. In none of these cases, however, is there a single formally distinguished set of nouns to which these concordant morphemes refer. In all dialects Classes 1 and 2 are used exclusively of nouns referring to human beings (though these may belong to other classes as well). Class 1 refers to nouns with prefix mũ-, most of which have plurals with prefix a-, to which Class 2 refers. Class 1 may also, however, refer to nouns with no prefix which refer to human beings (this set of nouns is traditionally termed "Class 1a"), and these have plurals (to which Class 2 also refers) in "Class 2a", with prefix ma- in Kikuyu, Kamba, and Embu, ba- in Mwimbi. Classes 1 and 2 are also used to agree with proper names

of human beings, whatever their prefix.

Classes 9 and 10 are used of singular and plural nouns, respectively, whose prefix is a nasal homorganic with the initial consonant of the stem. They are also used of singular and plural nouns with no prefix ("Class 9a" and "Class 10a"). In Kikuyu, Kamba, and Upper Mwimbi, Class 10 is used also of plural nouns with prefix i- or ci-/sy-/ji-, the first being used with stems with initial consonant, the three others being used with vowel-initial stems in Kikuyu, Kamba, and Upper Mwimbi, respectively ("Class 8").

Class 3 shows the greatest variety. It is used to refer to nouns (not referring to humans) with prefix mũ- in all dialects. In Kikuyu, Kamba, and Embu it is used also both of nouns with prefix ũ- ("Class 14") and of nouns without any prefix ("Class 14a").

Class 8 is found outside the noun only in Embu and Lower Mwimbi, where it refers to nouns with prefix i- (before consonant-initial stems) or ci-/bi- (before vowel-initial stems in Embu and Lower Mwimbi, respectively). Class 11 is lacking in Kamba, but in Kikuyu, Embu, and Mwimbi refers to nouns with prefix rũ- (in Kamba nouns of this class have merged in form and concord with "Class 14"). Class 14 is distinguished only in Mwimbi, where it refers to nouns with prefix ũ-.

Section 2 : Inventory of Pronominal Prefixes

A. Objective Prefixes :

As has been stated, objective prefixes occur immediately before the verb stem, and agree in class with the object of the verb. The

reflexive prefix (Class R) has no allomorphs anywhere else. It occurs only when the subject and object are identical, not when they are merely of the same class. The following are found:

Class	Kikuyu	Kamba	Embu	Upper Mwimbi	Lower Mwimbi
A.	-N- ¹	-N-	-N-	-N-	-N-
AA.	-tú- ²	-tú-	-tú-	-tú-	-tú-
B.	-kù-	-kù-	-kù-	-kù-	-kù-
BB.	-mú-	-mú-	-mú-	-bú-	-bú-
R.	-í-	-í-	-í-	-í-	-í-
1.	-mù-	-mù-	-mù-	-mù-	-mù-
2.	-má-	-má-	-má-	-bá-	-bá-
3.	-ú-	-ú-	-ú-	-ú-	-jú-
4.	-mì-	-mì-	-mì-	-mì-	-mì-
5.	-rì-	-yì-	-rì-	-rì-	-rì-
6.	-má-	-má-	-má-	-má-	-má-
7.	-kí-	-kí-	-kí-	-kí-	-kí-
8.			-í-/-cí- ³		-bí-
9.	-mì-	-mì-	-mì-	-mì-	-mì-
10.	-í-/-cí- ⁴	-í-/-sy- ³	-í-/-cí- ³	-í-/-jí- ³	-í-/-jí- ³
11.	-rú-		-rú-	-rú-	-rú-
12.	-tú-	-tú-	-tú-	-tú-	-tú-
13.	-ká-	-ká-	-ká-	-ká-	-ká-
14.				-bú-	-bú-
15.	-kú-	-kú-	-kú-	-kú-	-kú-
16.	-há-	-vá-	-vá-	-á-	-á-

B. Relative Subjective Prefixes :

It might perhaps be better to discuss the independent subjective prefixes first, but the use of the relative is somewhat more complex, and it seems best to begin with these. In all dialects, as the name implies, these are used in relative constructions. In Kikuyu, Embu, and Mwimbi these are used only if the noun modified by the relative clause and the subject of the verb are identical. In Kamba these are used in any relative verb, whatever the item modified by the clause.

In Kamba and Embu only, this series of subjective prefixes is also used in copular constructions. In Embu it is used only if ní or an equivalent proclitic immediately precedes the verb. In Kamba it is used with any copular, wherever the proclitic occurs.

The position of the subjective prefix in the construction has been stated for each dialect in the construction inventories. The following are distinguished:

Class	Kikuyu	Kamba	Embu	Upper Mwimbi	Lower Mwimbi
A.	N-/ndí-/nd-/í-	n-/ní-	N-/ní-/n-	N-/nd-/ndí-	N-/ndí-/nd-
AA.	tú-	tú-/tí-/t-		tú-	tú-
B.	ú-	ú-	ú-	ú-	ú-
BB.	mú-	mú-	mú-	bú-	bú-
1.	ù-	ù-	ù-	ù-	ù-
2.	má-	má-	má-	bá-	bá-
3.	ú-	ú-	ú-	ú-	jú-
4.	ĩ-	ĩ-	ĩ-	ĩ-	ĩ-

Class	Kikuyu	Kamba	Embu	Upper Mwimbi	Lower Mwimbi
5.	rí-	(y)í-	rí-	rí-	rí-
6.	má-	má-	má-	má-	má-
7.	kí-	kí-	kí-	kí-	kí-
8.			í-/cí- ³		bí-
9.	ì-	ì-	ì-	ì-	ì-
10.	í-/cí- ³	í-/sy- ³	í-/cí- ³	í-/jí- ³	í-/jí- ³
11.	rú-		rú-	rú-	rú-
12.	tú-	tú-	tú-	tú-	tú-
13.	ká-	ká-	ká-	ká-	ká-
14.				bú-	bú-
15.	kú-	kú-	kú-	kú-	kú-
16.	há-	vá-	vá-	á-	á-

C. Independent Subjective Prefixes :

These occur in all constructions having a subjective prefix as a constituent, except where it is specified in B. that the relative series is used. The full list of prefixes will not be given here, as except in tone the relative and independent subjective prefixes are identical in form except in Class 1. The Class 1 subjective prefix in this series has in each dialect the form á- instead of the ù- found in the relative series. The tonal difference is that in this series (except when the intonational pattern of the construction alters the tonal characteristics of the subjective prefix) Classes A, AA, B, BB, and perhaps (there is some uncertainty here) 4 and 9 have low tone, all other classes have high.

Notes to Appendix V:

1. The symbol N in these tables stands for a nasal homorganic with the following consonant.
2. The tones marked in these tables are the basic tones. In some constructions these are replaced by tones which are imposed by the constructions' intonational patterns.
3. In these classes, the variants are phonologically conditioned.
4. Here there is completely free variation before consonant-initial stems. With vowel-initial stems, only -ci- may occur.
5. The occurrence of these variants is conditioned by the element which follows. For details, see the discussion of the external effects of elements in each construction inventory.
6. In some dialects of Kamba only tú- may occur. Mr. Nduva, however, used that variant rarely, usually only with the element -kũ- immediately following. He normally used tí-, the variant t- occurring when this subjective prefix preceded a vowel capable of coalescence.