A COMPARATIVE STUDY OF THE NOUN-CLASS SYSTEMS OF HEBEAN AND KISUHAN

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This study is intended to provide a detailed analysis of the noun-class systems of Kibani and Kiswahili, and to compare the morphological and semantic aspects involved, with the aim of establishing the extent of relationships between these two languages.

However, it is felt that this analysis and comparison should follow a discussion of certain outstanding issues concerning noun-classes generally. This is considered necessary here because, although studies of noun-classes are already very numerous in the literature, details of certain aspects of noun-classes such as the correspondence between form and meaning, the allocation of loanwords to classes, the role of number and pairing of classes, all still warrant further definition. Besides, there are certain views which have been expressed about these and other noun-class aspects which still require further examination and analysis. It is on these grounds that it is felt necessary to participate briefly in these discussions with the specific aim of establishing a basis for the approach I take in my analysis and comparison of the two noun-class systems.

The objective of providing a brief background survey of the two languages here is the examination of the views already expressed concerning the forms and other noun-class characteristics of the two languages, in order to establish a justification for further discussion of both the Kibani and the already widely described Kiswahili noun-classes.
This study will, therefore, be divided into the following three chapters:

Chapter I: NOUN-CLASSES: A BRIEF SURVEY

1. General: Noun-class languages; definition of noun-classes.
2. Elements of noun-class: Affixes, Subclasses, Number, Pairing, Gender, Concord.
3. The semantic properties of noun-classes.
4. Loanwords in noun-classes.

Chapter II: KEIBAN AND KIWAMILLI

1. Phonology.
2. Previous views on the noun-classes of Keiban and Kiwamilli.

Chapter III: A COMPARATIVE STUDY OF THE NOUN-CLASS SYSTEMS OF KEIBAN AND KIWAMILLI

1. The noun-class systems of Keiban and Kiwamilli: a general outline.
2. Discussion of classes and their components.
3. Morphological and semantic comparison.
4. Conclusion.
I wish to thank the following people: Dr. Herman Bell, my supervisor for his guidance; Dr. Roland Stevenson who provided me with a number of manuscripts and articles on Heiban in particular and noun-classes generally - works which I could not have been able to obtain otherwise. Dr. Stevenson's previous works on Nuba Mountain languages have also provided me with facts which I have extensively referred to in this thesis; Dr. Lilith Haynes for her critical examination of various linguistic facts and of the language in this work; Pastor Adam Koku Kaff of Osherman, Yagach Maharak of Conkori School, and Mohamed Abd-el-Salam of Sahafa (in Esartool) my Heiban informants; and my wife Cecilia my Abnor and children Sampahehu, Nurwe and Nagori for their tolerant and encouraging spirit, which has been an encouragement to me throughout.
ABBREVIATIONS

ALS AFRICAN LANGUAGE STUDIES
JAL JOURNAL OF AFRICAN LANGUAGES
LES ZEITSCHRIFT FUR INDONESISCHER-SPRACHEN
C.N.R.S. CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE
PB PHOTO-JANTU
PUC PHOTO-UJUS-CONGO
Cr. Compare
ff. and the following.
CHAPTER ONE: 
Heiban and Kiswahili

1.1. Heiban

1.1.1. Phonology of Heiban

1.1.2. Sounds Characterizing the Heiban Class System

1.1.3. A Background Survey of Heiban noun-classes.

1.1.4. Affixes, Allomorphs and Variants in Heiban.

1.2. Kiswahili

1.2.1. Phonology of Kiswahili

1.2.2. Sounds Characterizing the Kiswahili Class System

1.2.3. Background Survey of Kiswahili noun-classes.

1.2.4. Prefixes, Allomorphs and Variants in Kiswahili

CHAPTER TWO: 
A Comparative Study of the Noun-Class Systems of Heiban and Kiswahili

2.1. The Noun-Class Systems of Heiban and Kiswahili

2.2. A Class-by-Class analysis

2.2.1. Heiban classes

2.2.2. Kiswahili classes

2.3. Comparison of the Two Systems

2.3.1. Morphological Comparison

2.3.2. Semantic Comparison
24. CONCLUSION

POSTSCRIPT
NAME-CLASSES: A BRIEF SURVEY

References

Appendix A: PROTO-HANNU CLASS SYSTEM

Appendix B: THE NOM-CLASS SYSTEMS OF THE KORDOFANIAN LANGUAGE-GROUPS

Appendix C: NOM-CLASS OF SUDAN BY REV. E. J. NOBBS

Page 38, 70, 158, 112, 114, 115
Greenberg (1963), using sound-meaning correspondences and a number of lexical items for his comprehensive comparison of African languages, posited the Kordofanian and Niger-Congo groups of languages as units related to each other as branches of a larger family. Welmers (1973), using Greenberg's and other observations, expressed the view that "it is possible that the relationship between the Kordofanian languages and the non-Hande Niger-Congo is closer than any of them to Hamito" (op. cit., 177). He added, however, that this relationship had yet to be proven.

From the noun-class systems of these languages - groupings, Greenberg (op. cit., 150-153) showed correspondences between the Kordofanian classes 1-4, and the Bantu classes li-6, 26. He further traced the correspondence between the nouns /a/ and /v/ noted in these classes, and found them to occur in (a) the word for 'tongue'; (b) the second and third person singular pronoun; and (c) the suffixes - pe and - me which are respectively used to denote personal relationships in Kordofanian languages and Niger-Congo languages like Likpa and Akbafi. Other noun-class correspondences were seen to exist between the Kordofanian class 3-4, and certain nouns in Niger-Congo languages with /a/ and /e/ initially - such as Wolof gor 'man': Luganda kaba, 'king' - and between (Kordofanian) Katsa la and (Niger-Congo) Bantu bu, used for deriving abstract nouns.

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1- Given as 7- by Greenberg, but see explanation in Chapter 3, section 2.
Greenberg's comparative procedure however leaves much to be desired, because its lack of details about the languages involved in the comparison makes most of his conclusions debatable: without linguistic details about the languages under comparison, no reliable accounts of relationship can be established.

This thesis aims primarily at providing as much detail as possible about the noun-class systems of Holam (belonging to the Koshl-Moro group of Kofofam) and Kiwahili (belonging to the Kantu sub-group in the Benue-Congo group of Niger-Congo). The morphological and semantic facts that emerge from the analysis of these class-systems are then compared in order show the extent of their relationships.

In this thesis, no attempt is made to establish a genetic relationship between Holam and Kiwahili, for this would require similar detailed analyses of additional languages and of their other linguistic features. The establishment of genetic relationships also requires some work on the histories of the languages concerned, an undertaking which is beyond the scope of this thesis. However, an attempt is made in the course of this study to relate certain findings to previously advanced reconstructions of noun-class forms. This method serves to indicate the likely outcomes of fuller comparative research on various characteristics of the languages.

The postscript presented at the end of the thesis was originally intended as its introductory chapter (see Abstract) but, on the advice of my supervisors, has been included as an appendix.
CHAPTER ONE

HEBREW AND KURDISTANI

1.1. Hebrew

1.1.1. The phonological system of Hebrew appears to involve the following:

<table>
<thead>
<tr>
<th>Components</th>
<th>Labial</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Palatal</th>
<th>Velar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stops/Clicks</td>
<td>ð</td>
<td>k</td>
<td>g</td>
<td>ñ</td>
<td>j</td>
</tr>
<tr>
<td>Voiced</td>
<td>b</td>
<td>d</td>
<td>g</td>
<td>y</td>
<td>j</td>
</tr>
<tr>
<td>Plosive</td>
<td>(p)</td>
<td>(t)</td>
<td>(k)</td>
<td>(w)</td>
<td>(j)</td>
</tr>
<tr>
<td>Nasals</td>
<td>(m)</td>
<td>(n)</td>
<td>(w)</td>
<td>(j)</td>
<td></td>
</tr>
<tr>
<td>Liquids</td>
<td>(l)</td>
<td>(r)</td>
<td>(w)</td>
<td>(j)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vowels</th>
<th>Set A</th>
<th>Set B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front</td>
<td>Back</td>
<td>Front</td>
</tr>
<tr>
<td>High</td>
<td>a, e</td>
<td>High</td>
</tr>
<tr>
<td>Mid</td>
<td>o</td>
<td>Mid</td>
</tr>
<tr>
<td>Central</td>
<td>ñ</td>
<td>Central</td>
</tr>
<tr>
<td>Low</td>
<td>ñ</td>
<td>Low</td>
</tr>
</tbody>
</table>

Stevenson who posess a seven-vowel system for the Kurdishian languages considers /ä/, /e/, and /o/ in Set B to be allophones of /a/, /e/, and /o/ respectively. But the few word-pairs I have encountered in Hebrew do seem to indicate that they are phonemes in this language. The examples are, /bara/ 'blood' versus /bar/ 'dog' (the slight length in the former does not seem to distort the opposition); /bala/ 'crying' (noun) versus /bāl/ 'a word used for calling a dog'. /dā/ and /lā/ also contrast and some examples involving /d/ and /l/ are noted in numerous word-pairs showing the occurrence of vowels of the same set e.g. /dil/ 'descent' versus /dil/ 'writing', /jīl/ 'drinking' (vowel) versus /jīl/ 'drinking' (noun). Although no attempt has been made to establish the vowel harmony rules in this language, there are clear contrasts between such pairs.
Stevenson notes that in most Kordofanian languages "dynamic stress accompanied by high or low tone plays a greater role than syllabic pitch in such ..." (Tucker and Bryan 1956:273). In Nubian, lexical tone appears to be prominent enough by the following examples:

\[
\begin{array}{ll}
\text{\#1} & \text{'vegetable'} \quad \text{(like Arabic ajur)}\\
\text{\#2} & \text{'grunt'} \quad \text{(sound of a pig)}\\
\text{\#3} & \text{'griza'}\\
\text{\#4} & \text{'blood vessels'} \quad \text{versus } \text{\#5} \text{ ('species of') }\\
\text{\#5} & \text{'pool, pond'} \quad \text{versus } \text{\#6} \text{ ('gourd')}\\
\text{\#6} & \text{'pool, pond'} \quad \text{versus } \text{\#7} \text{ ('implement used for planting')}\\
\text{\#7} & \text{'pool, pond'} \quad \text{versus } \text{\#8} \text{ ('implement used for planting')}\\
\end{array}
\]

Rising and falling tones are also noted in long vowel endings e.g. \text{\#9} \text{'knee'} versus \text{\#10}'a cabbage-like plant whose seeds only are used'.

Tone is marked as follows:

- **High**
  - \[\]
- **Mid**
  - \[-\]
- **Low**
  - \[\]
Stevenson (1956:37-37) noted "pure palatal plosives" (/ʃ/ and /ʒ/) to occur in Kordofanian Languages, but in Neihan these two sounds tend to vary commonly in elicitation, except in the minimal pairs /d u/ 'intestines' and /dʒ/ 'breasts' — where they become distinct.

Stevenson also noted voiceless / voiced and plosive/ fricative variations" (e.g. /ʃə/, /tʃ/) to be common in Kordofanian Languages. In Neihan, fricatives are rare: only two examples (/šarr/ 'light' and /farr/ 'faint') have been encountered for /ʃ/. Neihan shows some minimal pairs of voiced and voiceless vowel sounds such as /qarr/ 'clan' and /karr/ 'trees' and /ši/ 'alone' and /sti/ "eyes" upon which their distinction can be based.

Also noted to occur in Neihan are geminate sounds such as /̥q̥/ in /alle/ 'descent', /̥u/ 'writing' (maxx) /alle/ 'ascent'.

Only one case which shows a contrast between the geminate and single sound has been encountered: /šarr/ 'retention of anger after quarrel' /̥qarr/ 'gum'.

1.1.2. The sounds characterizing the Neihan class system.

Of the sounds in the present inventory, the following characterize the Neihan class affix system: /š/, /u/, /ʒ/, /ʃ/, /h/, /c/, /a/ with /ə/ and /ɛ/ as rare variants.

The nasal sounds take a prominent place in the Neihan class system: three classes — prefixes and one class suffix out of the ten classes established for this language.
Except for the suffix, the class affixes are "very often but by no means always" (Stevenson 1964:79) similar to the concord forms with which they operate.

1.1.3. A background survey of Seihim classes.

Among the few who have studied the grammar of Seihim is P.A. MacDiarmid who is noted to have "failed to understand noun-classes" (Stevenson 1926/57:198, footnote) in a work for which she was awarded a D. Lit. from the University of Dunedin in New Zealand.

The Reverend E.J. Nobbs of the Sudan United Mission collected numerous vocabulary items of Seihim and published gospel translations and grammatical notes which have been included in a "short authoritative study" produced by Meinhoef in his "Die Seihim in Kordofan" (1919, Vol 1, No. 2, 1949/53, pp. 91-130). Rev. Nobbs' collection of Seihim nouns is appreciable although he did not involve himself deeply in the technical distinction and description of the noun-classifications he made. He records (in a manuscript) twelve classes and two subclasses for Seihim, but his "unifying ideas of classes" (see Appendix C) are inadequately presented and in some cases not indicated for certain classes.

Concord in Seihim.

Seihim has one set of concord noted to be very often but by no means always (1.1.2.) similar to the class prefixes.

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Rev. Nobbs shows, for example, that the unifying idea for class-gaaw is "personal descriptive", of class gaaw, keeto be'treel", and no ideas are presented for classes such as la/yi, etc.
Semantic Properties of Hebrew noun-classes.

Stevenson (1964:81) expressed the view that for Kordofanian languages "one must be careful not to tie the notion labels [such as 'person', 'tree', etc] too firmly to [the Kordofanian] classes, as nearly all of them also contain nouns expressing varied ideas."

1.1.4. Affixes, Alloagric and Variants in Hebrew

<table>
<thead>
<tr>
<th>Class Affixes</th>
<th>Variant(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Singular Classes</strong></td>
<td></td>
</tr>
<tr>
<td>a) gy-/ŷ</td>
<td>g-</td>
</tr>
<tr>
<td>b) l-</td>
<td></td>
</tr>
<tr>
<td>c) ŷ/k-</td>
<td></td>
</tr>
<tr>
<td>d) k̂</td>
<td></td>
</tr>
<tr>
<td>e) ŷ</td>
<td></td>
</tr>
<tr>
<td><strong>Plural Classes</strong></td>
<td></td>
</tr>
<tr>
<td>c) l-</td>
<td>l- (prevocalic)</td>
</tr>
<tr>
<td>d) l̂/l̄, ŷ</td>
<td>ŷ (in concord only with the vowel-initial nouns accommodated by ŷ)</td>
</tr>
<tr>
<td>h) nŷ</td>
<td></td>
</tr>
<tr>
<td>i) ŷ</td>
<td></td>
</tr>
<tr>
<td>j) ŷ</td>
<td></td>
</tr>
<tr>
<td>k) ŷ</td>
<td></td>
</tr>
</tbody>
</table>

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6. The sign (/) is being adopted here to separate gə̃dām forms from their vowelless variants. The latter are apparently fewer in occurrence.

7. This class also accommodates nouns with initial /t/ and /y/.
Group class numbers are not used in this Chapter (but they are indicated in the following Chapter) for Sesha and Kimwili because the arrangement used in this study (all singulars listed before all plurals) is different from the conventional one (listing each singular followed by its plural). For conventional numbering, therefore, refer to chapter 21 or to Appendices A and B. This system is followed in order to accommodate the classes not listed, or listed in a different manner by earlier students of these languages.

1.2. Kimwili

1.2.1. Phonology

Kimwili phonology has been discussed with varying degrees of detail in a number of works. The following summary is presented on the basis of Bulmer’s account.

<table>
<thead>
<tr>
<th>Consonants</th>
<th>Labial</th>
<th>Dental/Alveolar</th>
<th>Palatal</th>
<th>Velar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stops (voiceless)</td>
<td>p</td>
<td>t</td>
<td>k</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b</td>
<td>d</td>
<td>j</td>
<td></td>
</tr>
<tr>
<td></td>
<td>m</td>
<td>n</td>
<td>ng</td>
<td></td>
</tr>
<tr>
<td>Aspirates</td>
<td>g</td>
<td>g</td>
<td>g</td>
<td>k</td>
</tr>
<tr>
<td></td>
<td>h</td>
<td>h</td>
<td>h</td>
<td>h</td>
</tr>
<tr>
<td></td>
<td>gh</td>
<td>gh</td>
<td>gh</td>
<td>gh</td>
</tr>
<tr>
<td>Voiced</td>
<td>b</td>
<td>d</td>
<td>j</td>
<td></td>
</tr>
<tr>
<td></td>
<td>m</td>
<td>n</td>
<td>ng</td>
<td></td>
</tr>
<tr>
<td>Fricatives</td>
<td>f</td>
<td>θ</td>
<td>s</td>
<td></td>
</tr>
<tr>
<td></td>
<td>s</td>
<td>z</td>
<td>s</td>
<td></td>
</tr>
<tr>
<td>Liquids</td>
<td>r</td>
<td>r</td>
<td>r</td>
<td></td>
</tr>
<tr>
<td></td>
<td>z</td>
<td>z</td>
<td>z</td>
<td></td>
</tr>
<tr>
<td>Nasals</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>n</td>
<td>n</td>
<td></td>
</tr>
</tbody>
</table>

An example in p-class in Kimwili which has always been listed as P1, classes 11 and 14. It is given only one place in this system to indicate its established synchronic position. The unnumbered and unlisted Korean/Chinese classes in Stevenson’s (1954) list, are also accommodated in this manner.
Vowels  Front  Back
High  a  ü
Mid  e  o
Low  u

Procedure: stress, pitch (in the sense of intonation) and juncture. It is claimed that tone has been lost (Ashton 1974) by all major Kiribakili dialects which have been widely used for trade and other forms of communication. Tones have, however, been tentatively recorded in some of the smaller dialects.7

The treatment of voiceless aspirate phonemes and the borrowed phonemes /θ/, /ʃ/, and /y/ require some additional comments.

Pulomé (1967?) has noted that the voiceless aspirate phonemes are evidenced:

a) "in the minimal pairs of semantically different lexical items,"

b) "in contrasts between nouns belonging to the n-class and their augmentatives" 8 (pp. cit., 39, 40).

Pulomé further notes that the contrast between aspirates and non-aspirates has been blurred by factors such as low functional yield of aspirates; a tendency to aspirate initial voiceless stops and affricates; the absence of notations of aspiration both in the other

7- Tucker and Bryan (1970), for example, tentatively mark tones for Aguate, a Kiribakili dialect spoken in the Conover Islands.
8- For examples see Pulomé (1967:39, 40).
Arabic writing system of Kiswahili and in its current romanization; and the growing influence of non-native speakers.

However, these phonemes remain well established in all Kiswahili dialects and in a number of other Bantu languages. Aspiration with these sounds has also been claimed to function as a negative marker contrasting affirmative/negative minimal pairs. What is seen here to be the main cause for doubts about their usage in the standard language is the fact that they were omitted in standardization, which appears to have deprived them of the emphasis which is usually accorded the standard phonemes. Polonsky’s “blurring” points to the lack of an authoritative guide for the learners of the standard language.

On the other hand, the borrowed sounds listed above were standardized and as such have continually been emphasized in formal presentations. Since these sounds are absent from most Bantu languages, the only speakers who are conversant with them are the coastal Muslims who frequently encounter them in Arabic words appearing in religious teachings. And as Polonsky indicates, other speakers only learn them in schools; accordingly many Kiswahili experts have regarded their exact pronunciation as an indicator of better knowledge of Kiswahili.

1.1.2. The sounds characterizing the Kiswahili Class Prefixes.

Of the sounds in the inventory above, those which characterize the class prefixes of the Kiswahili system are: /w/, /y/, /k/, /f/, /v/, /u/, /j/ and /y/. All are consonants except /u/ - which
represents a merger of two proto-Bantu (PB) classes 11 (* lu *) and 16 (* bu *) — and which therefore appear in Kiswaahi without the consonants which accompanied it in the original classes. A number of these consonants usually function as class prefixes in combination with either of the vowels /a/, /a/ or /a/. 

In Kiswaahi, as in Tshwa, the nasals appear to take a prominent position in the class system. De Wolf (1971:37) lists four nasal prefixes as \( \text{\(N_1\)} \) (n - of PB class 1), \( \text{\(N_2\)} \) (n - of PB class 2), \( \text{\(N_3\)} \) (n - of PB class 3) and \( \text{\(N_4\)} \) (n - of PB class 10). The nasals are, however, also noted to occur in combination with vowels in three other classes, namely PB classes 1 (\( \text{\(M_1\)} \)), 6 (\( \text{\(M_2\)} \)) and 15 (\( \text{\(M_3\)} \)).

The Kiswaahi concordial system of affixes itself above, together with these mentioned above, the phonemes /n/, /m/, /l/ and /a/, of which the last three function in combination with vowels.

1.2.1. A Background Survey of Kiswaahi Monon-Classess

Since the 1940's the grammar of Kiswaahi has been widely studied, with varying treatments being accorded the nature of nouns and their organization into discrete classes.

As a Bantu language, Kiswaahi has been noted to show an inflection ... characterized by the Bantu class prefix system " (Holms 1957:19) and its noun-class prefixes"... appear to include all that is widespread in Bantu..." (Ndum 1921:111). The

9 P.B. = Proto-Bantu referring to an outline of the reconstructed class system based on comparison of individual class systems of several Bantu languages (Wolmers 1972:185). The outline is reproduced in Appendix A.
Some of the "Bantu dialects" have been noted to possess a formative initial syllable or prefix not belonging to the root. Nadar further notes that these nouns have two numbers — singular and plural — and fall into classes distinguished by the particular pair of prefixes which mark the singular and plural in each noun (and that) the number of classes in a dialect seldom (if ever) exceeds ten and are readily recognizable in all dialects" (ibid., 11).

These concepts about the number of classes and their ready recognition appear to contradict the later claim by Longman (1952) that the precise number of differentiable classes in Kwashilli (p.34) and the order in which they may best be presented are debatable and much debated topics (op. cit., 17). However, Longman apparently accepts as practical the divisions made on the basis of pairs of (ifataki) prefixes proper to singular and their corresponding plurals. But if this is indeed the case, and if all that are involved in distinguishing the noun-classes are the nominal prefixes, then it becomes hard to see the reason for "much debate." Debate may, however, arise if attempts are made to distinguish noun-classes by applying several criteria for, as de Vries notes, the results of such attempts will depend upon the number of elements taken into consideration.

It is evident in the previous treatments of Kwashilli that the "shape of nominal affixes" was the chief — and often the only — element adopted by traditional grammarians in their determination of Kwashilli noun-classes, with the consequence that the total number of noun-classes proposed for Kwashilli is constant. Longman's

10 - The term used by Nadar to refer to Bantu languages.
concern about the precise number of differential classes of Kiswahili therefore needs to be considered.

Kiswahili nouns were divided into three groups by Krapf (1850), namely "prefixed, in part prefixed, and non-prefixed nouns" (op. cit., 33/94). The lists of Kiswahili noun-classes appearing in the words of subsequent scholars show only the prefixes of "prefixed" and "in part prefixed" nouns. In the traditional lists, no specific place has ever been allotted to "non-prefixed" nouns in Kiswahili. The classes which have commonly been shown with pairs of prefixes are K-/N-, M-/N-, N-/N- and, in some analyses, K-/N-1, K-/N-2 and U/N-. The single class noun-classes have included N-/N-1, N-/N-2, and in some cases, U and N-. The non-prefixed nouns have usually been accommodated into classes containing items with which they share the concordial affixes.

The order in which noun-classes of Kiswahili may best be presented poses a question which is considered to be worth further investigation here. The Block-Melikof system of numeration and ordering presents an outline of the reconstructed proto-Bantu class-systems based on comparisons of individual languages of the Bantu stock. In comparative studies, this system has usually been used as the standard for all Bantu languages although it has been regarded as awkward for its failure to provide adequate synchronic descriptions of the languages under study. In this system the list begins with widely attested classes, such that the odd numbers are singulars and even numbers plurals; generally plurals of the immediately preceding singulars." (Welmers, 1973:163). Welmers notes that this numbering system has been established and efforts have often been made to avoid changing it. Of the works on Kiswahili noun-classes which have been referred to in this study (see Table 1.1), only Poloné's (1967) follows this system of presentation.
The table below shows the noun-classes as they were recognized and presented by various scholars, clearly indicates that the order of presentation varies for all classes except 1 and 2 (or 1/2 and 3/4). The uniformity concerning classes 1 and 2 is seen to be due to the fact that the same classes are consistently used throughout various languages. The order of presentation may also be due to the fact that these classes are the most commonly used classes in languages with class systems. Although the order may vary in the quality of being the same, the rank-ordering (if the definition of noun-class as "rank-ordering in the quality of being") holds (see Postscript section 2) in subject to individual perception and therefore variant presentation.

As far as Kiswahili is concerned, there seems to be no evidence which might suggest that the subject of arranging classes into the best order was ever a serious concern of traditional scholars. Ashbom (1944), for example, discusses the noun-classes in Kiswahili in an order very different from that shown in the list she first presents of Kiswahili class-words (op. cit., 10). She adds a detailed discussion of noun-classes by explaining that she introduces the III-VI class first "because it so happens that the pronoun concords have the same form as class-prefixes" (ibid., 13). Then follow the discussions of the IV-VI, V-VI, and II- and III classes, which in her original list are numbered 3, 1 and 4, respectively.

Table 1, which is a summary of Kiswahili noun-classes determined on the basis of nominal prefixes, reveals also that traditional grammarians arrived at eight noun-classes in Kiswahili. While this evidence, as was noted earlier, no difference of opinion over the
precise number of differentiable classes of Swahili, it does how-
over, reveal a difference of opinion over exactly what prefixes
each scholar considered to constitute these eight noun-classes, and
especially the prefixes KU-, KU-, PA-, NU-, UN- and MAN-.
As a part of
the general examination of the whole system, the noun-classes of
Kiswahili will be considered in some detail.

| H/MA | 1 | 1 | 1 | 1 | 1 | 1/2 |
| H/NA | 2 | 2 | 2 | 2 | 2 | 3/4 |
| (J)/MA | 4(J/MA) | 5(-/MA) | 4(JI and MA) | 3 | 3/6 |
| KI/VI | 5 | 3 | 3 | 3 | 4 | 7/8 |
| N/N | 3 | 6 | 6 | 6 | 5 | 9/10 |
| U/CN | 6 | 4(C/NC) | 6 (U/CN) | 6 | 6(KU/NI) | 11/14 |
| RA | | | | | | |
| KU(Infin-O) | 0 | 7 | 7 | - | 15(KU infin.) |
| MANALI | 7 | 7 | 8 | 3 | 16 PA |
| (KU, PA, NO) | | | | | 10 AE |

Table 1.1: Variant Numbering of the Noun Classes of Kiswahili.
Concord in Kiswahili

Like most students of Kiswahili syntax, Ashton (1944) held the view that "the noun dominates the sentence" (op. cit., 11). A similar opinion is more vividly expressed by Kraft (1890) in the following statement:-

"...this classification is recognized by the various forms which put the noun's grammatic monomacy chieftaincy upon the verb, the adjective, and all other parts of speech" (op. cit., XVI).

All traditional scholars have termed this law of the Bantu dialects, through which the noun dominates other parts of speech, concord. (see "Postscript")

Kiswahili is noted to have "two distinct sets of concord" (Hadad op. cit., 13) which may be distinguished broadly as:

11- Poloosë (1967) notes "three kinds" of concord in Kiswahili which he names a) "nominal" (with nouns, locatives, and adjectives - including some pronouns),
b) "pronominal" (with connectives and referential particles, demonstratives, possessives and the interrogatives as well as evil -nekwe and-enyeo), and
c) "verbal" (op. cit., 96).

Poloosë's employment of the term "kind" differs from the way it is used by De Wolf (1971) who distinguishes between "type" and "set" of concord. According to De Wolf's usage of the terms, Poloosë's first two kinds equate Hadad's "nomin" while his "verbal" properly remains a kind of concord. The "verbal" type of concord is noted to present some special characteristics including a tendency towards alliterative forms and the addition of the third grammatical category (besides that of number and gender), namely that of PRESENCE (De Wolf op. cit., 42).
(i) "the nasal or noun set, identical (except in Kanam’s class 4 singular or 3rd class) with the class prefixes used with all adjectives properly."

(ii) "the noun-nasal or pronoun set ... used in all other cases, i.e. with possessive adjectives (i.e. demonstratives, possessives, etc), with verbs, with relative "a", with variable preposition "e" and as one form of the copula"12 (ibid., 13, 14).

Nadan notes that these two sets of concord occur only with five of his six principal noun-classes, while of the other three (one principal and two "supplementary") classes he says: "the class- and concord- prefixes are the same throughout." Nadan noted the double set of concord to make Kiswahili more difficult than other languages which have only one. And of the two sets he notes the "non-nasal" or pronominal set to "enter more widely and deeply into the structure of Kiswahili" than the the former (the noun set) (ibid.). Concordially, therefore, Kiswahili differs from Hebrew which has only one set.

The Semantic Properties of Kiswahili Noun-classes

Polonsky (1967) notes Kiswahili to show "the semantic basis of Bantu nominal classification but that various shifts and innovation have blurred the original distributional pattern in many ways". (op. cit., 56).

12 For his part, Welmers (1973) refers to set (i) as "primary" and to set (ii) as "referential" or secondary.
Before Polomé, Ashton (1944) had observed that each class in Kiwahili is associated with one or more underlying ideas. Ashton, continued however that it must not be imagined that the nouns are marshalled into their classes strictly in accordance with these ideas, adding that in all classes nouns will be found which do not conform to the general tendency of the class concerned, and that this was especially true of nouns derived from verbs (eg. sit-, 10.11).

These observations are comparable to those on the semantic properties of Hebrew classes (See 1.1.3.).

1.2.4. Prefixes, Allomorphy and Variants in Kiwahili

<table>
<thead>
<tr>
<th>Class Prefixes</th>
<th>Variants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Singular Classes:</strong></td>
<td></td>
</tr>
<tr>
<td>A) M-</td>
<td>NW-, MU- (prefixal)</td>
</tr>
<tr>
<td>B) N-</td>
<td>NW-, MU- (prefixal)</td>
</tr>
<tr>
<td>C) JN-, Ñ-</td>
<td>J- (prefixal)</td>
</tr>
<tr>
<td>D) KI-</td>
<td>CH- (prefixal, but see notes)</td>
</tr>
<tr>
<td>E) N- Ñ-</td>
<td>several (which see notes)</td>
</tr>
<tr>
<td>F) U-</td>
<td>(=) (prefixal)</td>
</tr>
<tr>
<td>G) KV-</td>
<td>KV- (prefixal)</td>
</tr>
<tr>
<td>H) PA-</td>
<td>-</td>
</tr>
<tr>
<td>I) EL-</td>
<td>EL- (prefixal)</td>
</tr>
<tr>
<td>J) MC-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Plural Classes:</strong></td>
<td></td>
</tr>
<tr>
<td>k) M-</td>
<td>-</td>
</tr>
<tr>
<td>l) KI-</td>
<td>-</td>
</tr>
<tr>
<td>m) KI-</td>
<td>-</td>
</tr>
<tr>
<td>n) VI-</td>
<td>VI- (prefixal but see notes)</td>
</tr>
<tr>
<td>o) E-ñ-</td>
<td>several (as e above).</td>
</tr>
</tbody>
</table>
The above table shows that, compared with Hiri, Kiswahili has more allomorph variants.

In a table of Kiswahili prefixes and their allomorphs drawn up by de Wolf (1973:37), it is indicated that out of the twelve classes listed for this language ten have allomorph variants. There are, however, allomorph variants marked for certain classes in de Wolf's list – such as those listed for classes g-, h-, k-, n-, r-, s-, v- and w– about which more information is needed.

1.2.4.1. Allomorphs of nasal prefixes.

De Wolf poses the ny-form as the allomorph for n-prefixes. The prefix ny- (in the two classes in which it occurs) is itself known to appear as nv-/ in both the preconsonantal and prevocalic positions in most Bantu languages but in Kiswahili it occurs as a syllable by itself before consonant other than /j/ and /w/ (Wolf, 1967:67), e.g. mganga 'medicinal man', mgwe 'old man', mbau 'witch doctor' ngwe 'plant'. In prevocalic positions, however, the n-prefix is usually accompanied by /w/, which is retained before stems with initial back vowels /u/ and
/o/ but lengthened into /u/ before other vowels. E.g. numa-unwe 'creator', numa-mum 'mother', numa-canoo 'uncle' and numa-child', numa-ili 'singer', numa-engu 'torch'.

De Wolf, in connection with prefix num-, further noted the word numa-lang 'man' to be exceptional in that the allomorph numa- is not realized, although the stem has an initial vowel. The word

13- White De Wolf (1971) indicates only the me- allomorph in his list. Whitley (1967) shows the occurrence of both me- and mu- as allomorphs of /m/. In his discussion, Whitley notes considerable variation in their use, adding 'for some they are in a free variation, for others only me- is acceptable' (op. cit., 159.)

However, it has also been recorded that me- is a form which originally had /o/ instead of /u/ and that it assumes this form only in words whose forms have been affected by contraction. Contraction is itself defined by Deke as 'the process of shortening a word ... by reduction in number of syllables' (as quoted by Adams 1969: 208). This process is known to apply frequently to stems with initial /u/; /w/ and /l/ and is recorded to occur in words where the prefixes contain vowel /o/ or /u/. The effectiveness of this process before stems with initial /u/ or /u/ is unmistakable. It allows the process of stem contraction to be realized with ease on an articulatory basis. The view here, therefore, is that White's examples - - numa-unwe 'creator' was meaning 'seller', numa-engu 'confession' - - indicating the occurrence of both eu- and me- allomorphs before stems with initial /u/- certainly required reasons beyond mere free variation.
mune seems to be the only exception in class I. In class 3 (also
2-), however, there are several cases which can be considered
exceptional due to the absence of /u/ before their stems which have
initial vowels. Involved in this are the words m-o-ye 'heart',
m-o-fe 'fire', m-ogyi 'smoke', and m-ungu 'god'.

Ashton considers the forms m-o-ye, m-o-fe, and m-o-ge to indicate
an elision of /u/ (which was thought accompanied by -) before /o/.
The elision of /u/ [and not /u/ from the prefix m- in the environ-
ment of a following back vowel is also seen to account for these
cases. Mune and mungu (known to occur as m-l-ye and m-l-ye, res-
spectively in certain Bantu languages), on the other hand, could
have their exceptionality attributed to morphological changes in
Kiakhibili. Alternatively, however, an elision of /u/ accompanying
the prefix m- (in instances where its retention is not totally
obligatory) remains another possibility. In fact Ekra'f (1962)
records two forms -- mungu and mungu -- for the word mungu (and
removes no other form for mune), which indicates the acceptability
of both forms.

As far as the m- prefixes (of classes 9 and 10) are
concerned, the only allomorphs forms given by De Wol are zero
and /u/ / . However, these are not the only allomorphs of m-
prefixes Whiteley (1967) notes, for example, that /u/ becomes
/u/ before voiced bilabial stops, /o/ / before velar stops, and

14. Mungu is also recorded in Kongol, one of the old
Kiakhibili dialects (see Nkela, 1967:73). The loss of /u/
in an intervocalic position is said to be common in Kiakhibili
(Folinik, 1967:73).
/x/ only before voiceless stops, trillives, nasals, trills and bilabial semi-vowels. It is only in prevocalic positions that /x/ is palatalized in all cases but one, resulting in the phones /h/ before the stems concerned.

1.2.4.2.

For the other classes previously listed for further investigation = = 31-, 32-, 33-, 34-, 35- and 36- De Wolf notes the respective allomorphs to be 1-, 2-, 3-, 4-, 5-, and 6-.

15- Polonsky (1967:167-70) shows more sound forms resulting from the combination of /x/ with other sounds. These include the nasal compounds.

16- This one exceptional case is the word nj-se a 'good' which should have appeared as * ny-sea with roots of the 3-class; Polonsky says this exception cannot be accounted for (op. cit., 70).

17- Polonsky (1967), in challenging Mainhnf's reconstruction of class 9 as (ne) says: 'the main reason for positing [ne] instead of [n] is the palatalization occurring before the root with vowels like /amna/ e.g. in Sambili nyama 'meat'; if proto-Bantu had a palatal nasal phoneme *ny in nyama could be part of this phoneme and reflect the same morphophonemic change of *n1 before vowels, as occurs in Sambili' (foot note 153).
De Wolf rightly lists ḋ as an allomorph of prefix ḋ-.
However, this allomorph occurs in this class only before a few stems (see Chap. 2 section 2) which have initial vowels. The prefix ḋ- is itself known to occur only before monosyllabic stems having initial consonants; ḋ- does not appear before polysyllabic stems, its allomorph being marked as zero.

De Wolf's presentation of ṃ as an allomorph of the ṃ- prefix is questionable. His decision seems to have been influenced by the occurrence of words like ṃ-mo 'teeth' ( nâ + mo ) and ṃ-ngo 'hearth' ( ṃ + noo ) showing coalescence of /a/ and /t/ into /s/.
Examples showing a similar coalescence with words of the sa class were also observed in Yao by Whiteley (1961:2) who pointed ṃn as an allomorph of sa- in Yao prefixes. However, since this process causes the emergence of a new sound from the juxtaposed elements of prefix and stem, any attempt to distinguish an allomorph from this final form is considered here to be unnecessary, because neither ṃ nor ṃn can satisfactorily represent the allomorphic concept as it is known to apply in all other classes. 18

Whereas the ki- and yi- prefixes are concerned, it is necessary to point out that in Kiwahili, their respective allomorphs ṡ- and Ṣ- occur only before vowels other than front high

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18. By comparison, some Bantu languages have retained the sa-prefix intact in similar environments. In Kikuyu, for example, Bennett (1970) records:

 sóc̃r̥/ma- sóc̃r̥ / tear'.

só̱l̥/ma-só̱l̥ / eye'.

---
in which case the prefix form is retained - e.g. ja ki-ini/
vi-ini 'core', kernel' as opposed to che-mu / vy-mu 'pot', etc.
However, there are cases where ki- and vi- are known to stand in
phonemic opposition to ch- and vy-(which are supposed to be their
allomorphs) before stems with initial vowels. Examples of this
opposition are:

ki-co / vi-co 'glass' versus che-co/vy-co 'latrine'
ki-sabo / vi-sabo 'settlement' versus che-sabo/vy-sabo 'bait'
ki-elge / vi-elge 'explanation' versus che-elge/vy-elge 'buck', etc.

Of these, Polish says: "it seems preferable to interpret
the forms with ki- as reflexes of [kj] before a /-/

Finally, the allomorph of the y-prefix is presented by De
Wolf as y-which alternates with uy- . Both of these forms are
known to occur in Kiswahili nouns, but although the occurrence of
y as an allomorph of uy- is indeed common, there is only one
word in Kiswahili for which the form uy- is recorded: the word
uv-nda / ny-nda: open space. In all other cases where the form
ny is marked, the n- component retains its prefix status while y is
an initial consonant of the stem concerned, e.g.:

u-winged: 'cloudiness', 'darkness'; gloom' ( < wing-se-wing
'cloud' or 'what resembles cloud');

u-wings: 'ability' ( < wege 'be able');

u-wenge: 'act (manner) of stretching over' ( < wenge 'spread over'); etc.

A controversy recently developed involving the acceptability of
the word ku-wnda (plural ki-wnda) now used to mean 'factory.' This word is disputed to exist; still it provides us with the stem-
manda. Had there been a relationship between this stem and
either munda (under discussion) or kivanda, the controversy
could have been resolved, but such relationship does not exist.
Attention should, however, be paid to the word u-wanga (plural
wanga) defined as 'courtyard' (which is also an open space).

This word is semantically related to the word gundja. But
wanga can only be realized in the Southern dialects; the Northern
mambas regularly showing /a/ where the Southern ones have
/a/. The cognate status of these words is confirmed by
Mlakavan and Brym (1973) -- a comparative study of the two
dialects which shows that mivanda (7/8 in Kiviata), kivanda (7/8)
kivandzaj, uvanda (11/6 Kiviata) and mivanga (11/10 Kivandzaj) to
be cognates. This rules out the existence of uy- indicated by
De Wulf.

This word has been thought to be singular, pairing with manda
'peg for fixing anything stretched out.' The position of
possible correlations between abstract nouns and concrete
objects in a singular / plural manner is questioned (see
Chapter 2 Section 2).
CHAPTER TWO

A COMPARATIVE STUDY OF THE MODE-CLAMP SYSTEMS OF

NATURE AND CIVILIZATION
2.2. A CLASS BY CLASS ANALYSIS

2.2.1. NUBIAN CLASSES:

2.2.1.1. Class prefix ge-___, kr-____

Stevenson's (1956/57, 1964) lists of Kordofanian classes show this class prefix as representing two classes: his Kordofanian classes 1 and 3. This presentation led him to see the situations involving classes 1 and 3 in Kordofanian and Zande as comparable in his statement: Kordofanian class 3 is "reminiscent of Zande m- class ... ... in having the same singular prefix as the 'Person class' (class 1)" (1956:123). However, the situation involving prefix ge-____- in Kordofanian languages appears to differ somewhat from that involving m- prefixes in Zande. The Kordofanian prefix ge-___, kr-____ is known to operate, as do all other class prefixes in the system, only one concord form similar to it. The two Zande m-classes, on the other hand, operate different concord each except in languages with a 'double set' of concord in which a similarity is noticed in one of the sets. It is therefore noted here that without the morphological difference, such as that occurring in Zande languages, there do not seem to be any grounds for treating Kordofanian classes 1 and 3 as distinct and therefore comparable to Zande.

In this study the Nubian class - prefix ge-____- is taken to represent one class only (-class 1). This position need not be considered anomalous, since, as Stevenson himself observes, there exist some Kordofanian languages whose "class 3" becomes merged with the 'Person's Class' (class 1) (1964). Nubian may, therefore, be considered as one of these languages.
Class *g-, kv-* in Hebrew contains all names and references to persons except the 4 personal relationship terms and terms which denote persons with physical abnormalities; all names of animals, trees, and insects except those which are named according to their prominent characteristic features and those that are traditionally given a special treatment in the Hebrew society. This class also contains some parts of the body and some names of diseases.

Examples of this class are:

a) Human beings: *kv-iti* 'person', *kv-nan* 'man', *kv-ilm* 'chief', *kv-fym* 'divine man/woman', *gv-vg* 'warrior', *kv-(i)wann* 'governor', *gv-y'm* 'chief', etc. These pair with *li-* class in plural.

b) Animals: *gv-nam* 'animal' (generic), *kv-nam* 'gazelle', *gv-y'm* 'antelope', *kv-nam* 'bison', *kv-nam* 'leopard', *kv-nam* 'bushbaby', *gv-y'm* 'wild cat', etc. These also pair with *li-* in plural.

1. For these see plural class *w*ix - *rt*.
2. These belong to class *g-* *k*-
3. These also belong to class *g-* *k*-
4. These belong to class *g-*
5. In this class items in categories (a), (b) and (c) compare semantically with items in *g-* class (2.2.2.1) in Hebrew; morphologically, however, the items in (b) and (c) compare with items in class *f-* (2.2.2.5) in Hebrew. Some items in categories (c) and (e) compare with items in *m-* class (2.2.2.2) in Hebrew.
c) Plants: gwa-ocyn 'tree' (genus); gya-uyin 'pumpkin';
gwa-ocn 'sahab tree'; gwa-yedony 'kash-kash tree';
gya-uyin 'wild fig', etc. These pair with j- class in plural.

d) Insects and reptiles: gya-ocn 'worm', gya-epipin 'caterpillar'; gya-ocn
'frog'; gya-yin 'bee'; gya-yan 'mosquito';
gya-adum 'spider'; gya-adum 'large lizard';
gya-adum 'python', etc. In plural these pair with li- class.

e) Parts of the body and diseases:
gwa-adyk 'waist'; gwa-adyk 'bladder'; gwa-adum
'back of throat'; gwa-agili 'cold in the head';
gwa-anvili 'syphilis', etc. These pair with li- class in plural.

2.1.2 Class prefix j-

This is a singular class prefix indicating one of the objects which are found in "sets or large numbers" (Stevenson 1956: 125). Included under this definition are objects such as stars, grains, fruits, eggs, and animals and birds which stay in groups. Other parts of the body occurring in sets or pairs appear to have been classified on the basis of their other characteristic features such as 'protrusion' (e.g. k-otlem 'eye', gwa-biti
'ear', gwa-adum 'tooth', etc.), 'length' (e.g. gwa-adum 'arm', gwa-adum
'magi,' etc.) All items in this class pair with -om class in plural.

Examples of this class are:

a) Objects generally: l-duc 'star,' l-syv 'egg,' l-dypo 'grain stalk,' l-og 'corn grain,' l-bag 'seed,' l-en 'village,' l-uma 'canoe,' l-tik 'stick,' l-wa 'porcupine quill,' etc.

b) Animals, birds, and insects which stay or move in groups: l-lam 'lion,' l-lim 'hedgehog,' l-ushim 'lizard,' l-ujim 'brow,' l-umur 'partridge,' l-thim 'butterfly'; l-the angered 'macaque and other water larvae,' l-dinimini 'soldier ant,' l-daly 'tick,' etc.

c) Parts of the body occurring in pairs or groups: l-uc 'leg,' l-lou 'mouth,' lip,' l-imse 'cheek,' l-wal 'taste,' l-um 'finger,' l-wa 'nose,' l-stril 'l-ijigiv 'ankle,' etc.

3.2.1.3. Class prefix l-

This is a singular class-marker.

Stevenson sees this class in Kosrof to contain "a large proportion of names of objects, utensils, tools, weapons, etc., and in Kosoloro, nouns indicative of personal abnormality or bodily defect"

6. A few items in categories (a) and (c) in this class compare with items in -om class (3.2.1.3) in Klonchili.
like the Latin ki-\textit{g-

Stevenson observes further that in most Kordofanian languages there are also a few names of animals and parts of the body in this class.

In Kordofan this class can be said to contain objects which 'protrude' or extend in depth, breadth, and height as well as creatures with such characteristic features. Included in this class, therefore are:

\begin{itemize}
  \item [a)] parts of the (human or animal) body which 'protrude' and those that are 'hollow', and hollow objects such as \textit{k-xu} 'belly', \textit{g-xu} 'shoulder', \textit{k-xo} 'wing', \textit{g-xo} 'ear' (also leaf), \textit{g-xi}: \textit{\textit{k-xu}} 'cheek', \textit{g-xu} 'skull', \textit{k-mun} 'finger nail', \textit{k-xo} 'eye', and \textit{k-im} 'cave', \textit{k-xo} 'crack', \textit{k-xo} 'pot', etc., pairing with \textit{\textit{k-\(\_\_\)}} prefix; and \textit{k-\textit{\(\_\_\)}} 'armpit', \textit{k-xo} 'stomach', \textit{g-xo} 'breast', \textit{g-xo} 'throat', \textit{k-xo} 'feather', \textit{g-xi} 'hobby', \textit{g-xo} 'nose', \textit{k-xo} 'eye', etc., pairing with \textit{\textit{j-\(\_\_\)}} prefix in plural.
  \item [b)] names of animals, birds, and plants with some protruding body parts such as:
\end{itemize}

\begin{itemize}
  \item \textit{g-xu} 'pig', \textit{k-xu} 'hyena', \textit{k-xu} 'camel', \textit{k-xo} 'cat', \textit{k-xo} 'tortoise', \textit{k-xo} 'porcupine', etc.,
  \item \textit{g-xo} 'bat', \textit{k-xo} 'domestic fowl', \textit{k-xo} 'ring dove', \textit{k-xo} 'albatross', \textit{g-xo} 'owl', etc., and \textit{k-xo} 'grass', \textit{g-xo} 'mushroom',
  \item \textit{k-xo} 'long gourd'. These pair with \textit{\textit{j-\(\_\_\)}} while the other names of
\end{itemize}

\begin{itemize}
  \item 7. A number of items in categories (a) and (b) in this class.
  \item 8. This is also classified according to a different concept and by a different name: see class 1- (G.2.1.2).
\end{itemize}
of plants such as *gindo* 'edible gourd', *gido* 'doleb palm' pair with *my-* prefix in plural.

c) Names of tools, weapons, and articles with protruding features such as: *giraga* 'iron hoe', *k-aapu* 'shoe'/sandal' (usually wooden), *g-ayar* 'cap of cartridge', *gola* 'snare for birds', *gibirum* 'razor blade', etc. These pair with *ja-* prefix in plural.

d) Names of persons with abnormalities or defects involving protruding parts of the body or simply probuerant abnormalities e.g. *g-aron* 'humpback', *g-off* 'deaf' (involving ear), *k-auny* 'one-eyed person', *k-ower* 'aged person' (beard), *g-aba* 'nosecone', etc. These pair with *ja-* in plural.

2.2.1.4. Class prefix *ja-

This is a singular class described by Stevenson as a "long things class" (1967,131).

In Kikambala this class is seen to contain 'long' things occurring as:

a) Parts of the human or animal body which are conceived as long (in relation to other parts) such as: *g-aad* hand', 'arm', *g-aam* 'thing', *g-ave* 'back' (back-bone), *g-lag* 'elbow', *g-adim* 'lower jaw', *g-aem* 'canine tooth', *g-alya* 'tongue', *g-aay* 'heart', *g-as* 'horn', etc.

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* In this class, a few items in categories (a) and (b) compare with items in Kiswahili's *ro* class (2.2.6.6).
h) Long objects such as:

- `g-` *track* in road, *g-`break`* crack in the earth, *g-`annay`* crack in the rock, *g-`liber`* large hill, *g-`ar`* cord or string, *g-`leeting`* brass wire ornaments, *g-`eel`* pit (for grave or well), *g-``urn`* axe-handle, *g-`we`* fence, *g-`rainy`* boundary, etc.

j) Animals and insects which are either tall/long themselves or possess some long body parts, such as *g-`we`* a goat, *g-`poor`* ant bear, *g-`i`* ant eater, *g-`yer`* elephant, *g-`il`* giraffe, *g-`iti`* large lizard, *g-`mea`* snake, etc; and *g-`ul`* small species of ant, *g-`inak`* guinea worm, *g-`um`* scorpion, *g-`ame`* grasshopper, etc.

2.2.1.5. Class prefix *g-*

This prefix occurs in this form in all environments. It is distinct from plural class prefix *pp-* (2.2.1.7) which itself occurs in this compound form in all environments. There has, however, been a confusion over the distinct position of classes *g-* and *pp-*: this confusion seems to have been brought about by what may be seen as the desire of previous writers to establish a semantic parallel between Kordofanian class *pp-* (a plural class containing items occurring in sets) and in large groups) and

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10. This includes the words with *g-* preceding the root with initial back vowels *g/ and *g/ in which *g-* has always been recorded or heard as *pp-. This is one of the facts which has led to the confusion over class *pp- and *g.* A closer examination of *g-* in these environments reveals the retention of the value of this sound.
Rantu class m- by including in the former the items designated
'mass liquids' and 'abstract'. However, the situation involv-
ing these items in the Kordofanian language is quite different
from that of Rantu; they do not seem to have been classified
on the basis of these concepts. In Kordofanian languages these
items do fit both morphologically and semantically into the class
under discussion in the manner to be described later in this
subsection.

In his 1965/56 study of the Kordofanian noun-classes,
Stevenson showed the class prefix m- as representing four classes
(15, 17, 20 and 21) of the total 26 classes. In his 1964 presen-
tation of the Kordofanian classes in which he showed . a total of
eleven classes, Stevenson listed but did not number the m- class.

In his original version, the classes represented by the m-
prefix were shown to contain:

1) (class 15) "names of many domestic or small animals;
the word 'boy' and 'girl' and in some languages(e.g.
Targi, ....... ) also diminutives;

2) (class 17) "augmentative forms;

3) (class 20) "liquids and abstract nouns" (am, ci, 13, 14);
In the 1964 version, class m- was shown only to contain
'liquids' (1964: 82).
Reihen class \( g \) can be said to contain all items which are traditionally treated with respect or fear. These occur as:

a) Domestic animals which are in most cases respected due to their relationship to the Reihenians, such as:
   - g-in 'dog', g-\textit{mox} 'cat', g-\textit{inro} 'cow', g-\textit{irzi} 'bull',
   - g-\textit{b} 'ostrich', g-\textit{mar} 'goat', g-\textit{kapaka} 'male', etc;

b) Other animals and birds which are probably respected or feared for their shapes or actions such as:
   - g-\textit{ini} 'hare', g-\textit{mox} 'fox', g-\textit{maox} 'monkey',
   - g-\textit{iron} 'squirrel', g-\textit{e} 'bird', (generic), g-\textit{irai} 'swallow', g-\textit{ei} 'species of bird reputed to foretell death', etc.

c) Human beings such as:
   - g-\textit{ire} 'child', g-\textit{ber} 'boy', g-\textit{ber} 'girl', g-\textit{por} 'dwarf',
   - g-\textit{erai} 'under-sized person', g-\textit{le} 'leper', etc;

d) Superstitious objects such as g-\textit{mixi} 'evil spirit',
   - g-\textit{mox} 'hair', g-\textit{irai} 'temple', g-\textit{mox} 'beill' (disease), etc;

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11. Items in this class compare with items in various Kivahili classes on item to item basis:
   2) Items in categories (a), (b), (e) and (f) compare with those in \( g \)-class (2.3.2.5) in Kivahili;
   11) Items in categories (a) and (d) compare with items in Kivahili's \( g \)-classes (2.3.2.1 and 2.3.2.2);
   111) Items in category (c) compare with those belonging to Kivahili's \( m \)-class (2.3.2.6 and 2.3.2.13);

12. Items in categories (a) to (f) pair with class prefix \( g \)-
in noun.
c) Insects feared for their actions such as:
   - *kayen* 'flea', *k-doro* 'lizard', *f-sdrzhub' 'cricket',
   - *g-dejlu* 'wasp', etc.

f) Some domestic items which are valued for the special
   purposes they serve at home or for the village such as:
   - *g-lluy* 'grainstore', *g-dot* 'basket', *g-dejlu* 'login',
   - *g-dor* 'spear', *g-dlyu* 'waterkin', *g-gulo* 'flute',
   - *g-pi* 'home for blowing', etc.

j) Liquids, abstract nouns, and other items conceivable
   as 'mass' such as:
   - *gaw* 'water', *gim* 'blood', *gole* 'oil', *gul*
     'milk', *gim* 'urine', *golay* 'saliva', *gim* 'gas
     discharge', *gururu* 'perspiration', *gimi* 'dew', etc.
   - *gururu* 'onion', *gururu* 'fine dust', *gim* 'pollen',
     *gururu* 'brain', *gururu* 'saltpetre', *gim* 'work',
     *gururu* 'sauce', etc., and *gim* 'strength', *golu* 'authority',
     *gim* 'witchcraft', *gim* 'lives', etc. All the nouns in
     this category do not take plural forms.

2.3.1.6. Class prefix **k**

This is the plural class - marker for all items in
the class *gim* - *ba-* (2.3.1.2.) which refer to persons, animals,
insects and parts of the body.
2.2.1.7. Class prefix \( jn \).

This is the plural class marker for items in:

a) class \( kn\) of (2.2.1.1) which refer to plants.

b) class \( ln\) of (2.2.1.3) referring to animals, birds, insects, trees and tree products, and to persons with 'defects'; and some parts of the body.

c) class \( gn\) of (2.2.1.4) referring to names of insects and reptiles.

2.2.1.8. Class prefix \( jn\).

This is the plural class marker of class \( jn\) of (2.2.1.2) in all its aspects.

2.2.1.9. Class prefix \( gn\).

This is the plural class marker for all items in class \( gn\) of (2.2.1.4) except insects and reptiles.

2.2.1.10. Class prefix \( ny\).

This is the plural class marker for:

a) all items in class \( ny\) of (2.2.1.5) except those designated 'mass','abstract', or liquids - which have no plurals;

b) items in class \( tn\) of (2.2.1.3) referring to some parts of the body, 'hollow' objects, and some plants.
2.3.1.11, Class suffix -na

This is the plural class suffix for all items designating personal relationship.

2.3.1.12 The Classes of non-affixed nouns in Heiban:

The allocation of non-affixed nouns in Heiban is done on the basis of their initial forms. The initial forms involved are of two types:

a) Vocalic

b) Consonantal showing similarity to any of the established class affixes.

All the nouns with initial vowels in Heiban are allocated to plural class -er (2.3.1.2). Their allocation is indicated by their use of the consonantal element /r/ which seems to be an allomorph of /h/. In Heiban this allomorph variant tends to appear only as a concord, unlike some other Kordofanian languages in which it also appears as a variant prefix.

The nouns involved in this vocalic-initial group seem to be those conceivable as 'plural mass', e.g. oor 'sand', sss 'door', or 'passages', sss 'hair (a)', igi 'fire', paw 'breath', aas 'animal', aas 'body', ooh 'thirst', aal 'bullrush', naat, etc.

The nouns with initial consonants showing exact or closer phonological similarity to any of the class prefixes are allocated to these particular classes. All nouns involved in this group...
are le-words e.g. k'ompa 'son' ('A- class), duwam'shop' ('B- clean),
kitas 'book' ('B-\$- class), harapata 'table' ('B- clean'), etc.

There is, however, another category of nouns which
have initial consonants but which are allocated to the B-,
\$- class irrespective of their similarity to any of the class-
prefixes.

This class has a zero allomorph. Involved here are nouns
such as life 'house', side 'life', nega 'a friend', nega 'a
brother', meta 'notes', etc., and le-words such as nega 'mango',
harapid 'orange', etc. The first two and the last two words do
not take plural forms; the remaining take li- prefix in their
plural.

2.2.1. KIGWAMKI NOOS- CLASSES

2.2.1.1 Class Prefix \$-

This is the singular class-marker, which denotes the
"autonomous individualized beings" (Polonsky 1967:156), occurring
as 'human being' and also as the generic categories m-wanana
'animal' and m-bwana 'insect'.

Examples of this class are:

\$-ta 'person', \$-africa 'African', \$-sujie 'dugout',
\$-ka 'wife', \$-woman 'European', \$-tofo 'child', \$-muma
'Arab', etc.; and deverbatives such as \$-sindje 'hunts',
(\$-xinda 'hunt!'), \$-goswe 'saves' (\$-xopswe'save'), etc.

15 The view considering the last two items as exceptional (cf.
Whitelaw, 1987:163) has been continually disputed.
This class has been isolated as one of the very few cases among noun-class systems which has "a definite semantic denominator" (Helm 1968:16), although there are a number of items which have been conceived as semantically similar to those in this class, but which are allocated to other classes. Of these items only one, amungu 'god' (class 9), deserves comment -- the others being the contextual elements whose positions will be determined in the postscript.

 Morphologically mungu belongs to a class seen by Poulos as still preserving the animistic conception of the world (op.cit., 97). Its treatment with class 1 concordial elements seems instead to relate it to the view that God is a being with a human image, a view which is closely connected with Christian beliefs but which hardly represents the traditional local concept of a god -- and is therefore perceived here as a lately acquired semantic concept.

2.2.2.2 Class prefix g-

This is the singular class prefix which is distinguished from the preceding class-prefix by its plural form and its pronominal concord.

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14 As Whiteley (1968) lists a few representative examples such as mungu 'god' (class 9), mungu-mungu 'craftsmen' (class 9), mungu-mungu 'blama' (class 7), mungu-mungu 'brother-/sister-in-law' (class 9), etc.

15 In fact, the usage of this word (and a few others) was only vigorously revived by the Christian denominations during their campaign to 'Islamize' Kikuyu. The Muslims had long rejected this word on the grounds that it has a plural form mungu which could not be applied to 'Allah.' For the Christians, however, this plural proved to be very useful in distinguishing the True God from other Gods/Idols, etc.
to the items in this class, this is considered to be only a
guincidence.

Concerning the derivatives in this class, Ashken's
observation that they take the suffix -a is valid although it
has to be noted that the forms with such suffixation can also
appear with the prefixes ke- or - (an allomorph of ji-) and
ass in ke-si-bu 'work' (kala 'stay up') si-me 'ear' (kalika
'heart'), nyun-ko 'numm' (lua 'create'), etc. Suffix -a is
shown by Polonsky (1967) as indicating (d) the implement which
performs the action and (b) the ultimate result of the action.
It is only with the latter connotation that suffix -a is usually
preceded by prefix -d of the class under discussion as in me-
end-a 'journey' (kala 'go'), m-cio-ko 'dance', 'game'
(tahega 'play'), m-sho-ko 'scene' (kala 'new'), etc. There
is also an example of a deverbalic with suffix -a in this class -
the word m-tuma- prophet! (lua 'send'), where the suffix
expresses passivity.

The only item which belongs morphologically to this
class but in semantically treated as class 1 is the name of an
animal species, n-jii 'lizard.' (The names of individual species
of the flora and fauna will be listed with elements whose
generation is usually variable (Postscript).

2.2.2.1. Class Prefix ji-

Polonsky (1967) expressed the view that this class
hardly preserves any trace of its original function -- which
was to indicate one of the pair of objects, e.g. parts of the body
which occur in pairs. He went further in saying that the prefix
ji- has expanded this semantic function to the indication of
any of the constitutent of group of things occurring in association
with prefix as- "(e.g. 'git-', 'k'). It is possible to condense these two semantic impressions into one which project prefix ji- as semantically indicating one of a pair or of a group of things. This semantic connection is still well preserved by all items in this class whose singular forms can be said to show ji- as a prefix. Such items are, however, very few.\textsuperscript{16} In Kwaswili namely ji-xwo 'eye', ji-xya 'cooking stone', ji-xo 'knife', ji-xo 'tooth', ji-xo 'hearth', and a deverbative ji-xo 'matter' (\textit{\textdegree} xwo 'speak').

The other single forms for pairs or groups of things which are polysyllabic are accommodated in this class by the presence of the zero allomorph of ji-. Such items are also very few, namely boppe 'shoulder', guti 'knee', xal 'ear', tene 'fruit', and deverbatives such as xalo 'ear', xalo 'blow' (\textit{\textdegree} plax 'struck'), xalo 'explanation' (\textit{\textdegree} plax 'explain'), etc.

An interesting aspect of this class is its inclusion of the augmentatives. Kwaswili, unlike most other Bantu languages, lacks separate augmentative and diminutive classes. As a result, Kwaswili uses the ji- element (\textsuperscript{17} viewed by Polons as reflecting the proto-Bantu (*gi-) which is a regular augmentative class + prefix of class 21, and thus different from the ji- of class five \textsuperscript{18} for the derivation of its augmentatives. When used in augmentation, however, this ji- is treated as an integral part of the word and not as a prefix. This same ji- element also appears after ki- prefix in all diminutive derivations. This is seen to imply that Kwaswili only \textsuperscript{19} diminishes the already augmented forms \textsuperscript{19}, e.g.

\textsuperscript{16} Loosman (1965) suggests that fifteen such items exist. This total is, however, disputed.

\textsuperscript{17} In Yao (also a Bantu language), the procedure seems to be the reverse of this here it is the diminutive element which is retained after an augmentative derivative form, implying that the augmentatives are derived from the already diminished forms e.g. manov 'person' ka-manov 'smaller', ka-

\textsuperscript{18} ka-manov 'very large person'. (22-a diminutive class prefix in Yao is retained after ka-a class 5 prefix. Kwaswili retains ji- augmentative element after ka-a class 7 prefix)
There was an attempt by Whiteley (1967) to present the augmentative and diminutive forms in Kiwahili separately as subclasses of classes 5 and 7, respectively. In doing so, Whiteley proposed that the ji- element was a prefix for the augmentative subclass, and kidi- the prefix of the diminutive subclass. It has, however, been argued that in these cases ji- does not function as a prefix. This position of the ji- element, together with the doubts previously expressed over the recognition of subclasses based on the semantic connotation of the items involved, are seen here as factors capable of rendering Whiteley’s classification questionable.

2.2.2.4. Class prefix ki-

This is the a singular class marker, which essentially refers to inanimate objects. In the grammatical studies of Kiwahili noun - class, this class has been considered the easiest in that its pronominal concords have the same forms as the class prefix.

Ashton (1964) divided the items belonging to this class into three categories, namely:

a) inanimate as opposed to living beings or living things e.g. ki-tu 'thing', ki-iti 'chair', etc.
All the forms connoting 'physical defect' in the preceding list, together with the other "adverbial-like" forms bearing similar connotations (such as kikamp' person with deformed arm', kiguru' person with foot defect', kitumbo' an obaga person', kibongo' humpback', and kigoyo' toothless' (Loogman 1963: 30) have very restricted usage. Normally, they are never used directly with the individuals concerned, and even in the absence of such persons some form of politeness or sympathy is usually shown in the sentence construction when reference to them has to be made.

Also relatable to the items connoting physical defects are the forms which Loogman sees as indicating 'affliction or ailments.' They include kisomato' gonorrhoea', kisho' pleurisy', kigungali' stomach disorder', kisita' lonya', kiphia' epilepsy', kibo' kisp', kitesa' trembling', kibombi' brain', etc. Most of these forms show verbal connections, which suggests that they are derivations. No plural form for this category of nouns have been heard in actual use.

ki- is also used in forming adverbials, e.g. kisho' the coastal or Schillii way or manner', kisho' European way or fashion', kisho' the rural way', etc. Kisa' also names languages by using a kis- prefix. However, it remains to be established whether this latter ki- is related or equivalent to the adverbial derivative, as most studies have claimed; the latter acquires a nominal
status and refers to a specific thing, while the former does not.

There are also names of two animal species in this class, viz. kiboko 'hippopotamus' and kifara 'rhinoceros'. These two, the form kijama 'youth', and the derivatives referring to persons with disabilities are the only items in this class which receive animatoconcordial treatment.

2.2.4.5. Class prefix -

This is a class of singular nouns, especially names of common objects, animals, and insects including:

a) names of animals such as goomb 'cow', hatili 'buffalo', nyoka 'monkey', lezi 'crab', etc;

b) names of insects such as ngiga 'locust', nyuki 'bee', nde 'cockroach', abu 'mosquito', etc;

c) names of fruit such as mishi 'banana', mazi 'coconut', munde 'dates', etc;

d) names of objects such as ampele 'bell', mana 'bucket', chopa 'bottle', awu 'rain', kiwira 'spear', nitu 'wax', etc.

There are also numerous loanwords in this class which have been allowed into this class by the zero (-) which occurs here as an allophone of /n/. Examples are kasesa 'coffee', kera 'letter', dawa 'medicine', watako 'motorbike', picha 'picture', senti 'punt', etc.
The occurrence of many names in this class is seen to be due to its primary function - - 1 to define the object or being by its most characteristic feature - - (Volosch 89 28, 101). Volosch's note that this function is still transparent in Kikuyu and the latter "an insect whose main activity is to produce honey (w)" in that there are many names in this class whose formations are still easily traceable. These include the names of items such as: ampe nkombe 1 bell (named by its characteristic sound as expressed in many Bantu languages); pata 1 ring (by the way it is made - pata 1 bend'), amdu 1 dog (by its barking); Kikuyu buke 1 dog. There are other examples like: nia 1 beawax and nyoke 1 snake which, while appearing morphologically closer to the verb forms mite 1 stick' and ampe 1 be straight', respectively, also show characteristics conceptually closer to the meanings conveyed by these verbs: beawax being 'sticky' while ampe is 'straighten' itself (especially when in motion). The words mana 1 father and maamis 1 mother' can also be related to the sounds produced by children in their very early stages of growth. All of these items seem to evidence the broad conceptual dimensions covered by the primary function of this class, and it is likely that many other indigenous names in this class can have their formations traced this way.

The absence of /a/ in the initial position of many of these nouns which are not loanwords had earlier (see chap. 1 sect. 2) been attributed to phonological changes which affect this sound when it is in contact with various other sounds.
This is a singular class. It is noted to result from the merging of two proto-Bantu classes li("he") and le ("she"). This background, together with the retention in this class of the semantic differences of the original classes and the occurrence of plural forms for items of "an" class origin only, has led scholars like Ashton (1964) to view p-class as two separate classes.

However, although the semantic distinction between the items of the two original classes that merged to form this class has remained as mentioned above, an attempt to propose that Kikuyu possesses two p-classes is considered here to be unnecessary. The reasons for this are:

1. morphologically, the two original classes have effectively merged in Kikuyu, as evidenced by the appearance of only one sound — due to the loss by each of the original classes of its most important class — element, the initial consonantal form;

2. syntactically, all the items in this class share similar concordial forms as opposed to the original situation;

3. all the items in this class can be conceived as morphologically singular, number being a factor relevant in maintaining the identity of all types of items in a class (see postscript 1.3.4).
Semantically, the 11-class in Kiwahilli can be viewed as containing:

a) nouns which Ashton sees to "refer to concrete objects with further implication of length or mass" (op. cit., 105), and

b) abstract nouns, which in Ashton's view denote qualities or states occurring as "abstractions of common nominal, verbal, or adjectival roots and as names of some countries" (ibid., 104).

The former involve items which are of proto-Bantu 11-class origin and have plural forms. Examples here are wuna/

{kuta} 'wall', umwele / (mywele) 'hair', adomy / (ndomy) 'beard',

uzambo / ( ashamed) 'beat!', ulini / (adi) 'tongue', etc. and
derivatives such as upatig / (tapatig) 'from', kusoma / (fanga) 'sweep',

ufungo / (fungo) 'key' (L. fanga 'open'), etc. The latter involve the items which are of proto-Bantu 11-class origin and

which have no plural forms. Examples are: waha 'desire',

'miscellaneous', uma 'nakedness', unzi 'nakedness' and derivations

such as umungu 'cloudiness', 'darkness', (L. wungu 'cloud'),

uziwa 'childhood' (L. zizi 'child'), uma 'umuzi 'ideal',

wapi 'to be completely developed', utungo 'incoherence',

'indiscreteness' (L. puapa 'to talk foolishly'), ufungo 'training',

'take' (L. fugu 'to take' to breed', umungo 'Ignorance, folly',

(L. inge 'stupid'), uhaya 'badness', wickedness' (L. haya 'bad'),

etc.

The underlying ideas of this class posed by Ashton deserve further discussion. Ashton (1944) wrote that the ideas underlying

11-class items of 11-class origin are "somewhat confused" (op. cit., 105).
Although immediately after this note she states that these ideas refer to concrete objects with a further implication of length or mass, she did not further specify the area(s) where the confusion lay. It is possible, however, to trace what can be interpreted as 'confusion' in Polocké's discussion of this class. Polocké (1967) first noted that the original function of this class—designating a single item in the whole mass—was blurred in certain cases. He noted cases to involve items such as ukata 'wall', vilač 'tongue', ufagíć 'broom', vimoč 'song', etc. Secondly, Polocké noted this function to have been extended to include mass nouns for which the component of the composite was not usually considered as an individual item (op. cit. 102): e.g., unya 'flour', vnimoč 'clay', uvala 'hard porridge', viti 'gruel', walla 'cooked rice', etc.

What seems to be behind the 'confusion' perceived in this class, however, is the introduction into it of the concept 'mass'. The introduction of this concept immediately leads to the conception of items such as usuva 'hair of a beard'; usuva 'piece of firewood', uswela 'hair'; ushuva 'bead' etc; as conceptually different from other items such as 'ukata ' wall', vilač 'tongue'; ufagíć 'broom', vimoč 'bat-pole', etc— the former being the single item in the 'whole mass' while the latter are simply single concrete items. The only semantic concept that seems to be common to all these items is that of 'length'. 15 Length is variably implied in items ranging from

15—Foreigners very often fail to grasp the way some of these concepts are applied to certain items. The example here is ushuva 'bead', which is usually not conceived of as a single grain—like object but an objects already strung together in lengths appropriate for the waist or neck.
upye, 'wind', ubuntu rib', uchanga 'head', etc., to ubuntu 'firewood',
uyal 'bole', etc. If, however, we remove the concept "mass" from this category of nouns, another place has to be found for mass items such as nali 'cooked rice', nape 'flour', ulongo 'soil',
'earth', uji 'gruel', umali 'hard porridge', umnde 'sow', wini
'ink', etc. Apart from nali and wino which are marked as
loanwords, evidence from various Kiswahili dialects - studies and
from many other Bantu languages - shows that all the other items in
this category of nouns belonging to the proto-Bantu class 14
('ba') As in the case of the names of some countries, the
possibility of these names being "abstractions" cannot be
ruled out.

2.2.2.7 Class prefix ka-

This is a class of verbal infinitives which Welmers
(1977) considers to share some of the grammar of nouns including the
ability of having certain modifiers" (op. cit. 164).

2.2.2.8 Class prefix ma-

This is a locative demonstrative referring to near
or explicit place. It is reflected as a basic noun-prefix in
only one word - ma-bila 'place', in the Kikuyu dialect of
Kiswahili.

20- Bryan and Slavikova (1973) for example, mark ubungo 'soil' as
class 14 in Kikuyu and as class 13 or 14 in Kikii. In
other Bantu languages, Tucker (1966) records ubungo 'porridge'
as class 14 in Kikoi and siku 'the author's language' has
qhikima 'hard porridge' and omboli 'flour' as class 1b items.
Omboli at least, seems to be a derivation from the
'spink' Kiswahili ngopi. These Bantu items are, however, only intended for general information, for similar items can be classified
differently by each language. They nevertheless point to the
possibility of these u-class mass items being abstract
2.2.2.9. Affix \textit{ku}-

This is a locative demonstrative referring to remote or general location, which is not reflected as a basic noun prefix in any word.

Walmsley notes that for Bantu this affix and the verbal infinitive affix \textit{ku-} (3.2.2.7) "must be kept distinct because in precisely the progressive verbal construction in question, in a few languages, a double prefix is used which is analyzed as the locative of \((\text{2S class})\) 17 before the infinitive of \((\text{2S class})\) 15." (ibid, 163).

2.2.2.10. Affix \textit{mu}-

This is a locative demonstrative referring to an internal location.

2.2.2.11. Class prefix \textit{wa}-

This is the plural class - marker corresponding to \(\text{2}-\) class (2.2.2.12) in all respects.

2.2.2.12. Class prefix \textit{ni}-

This is the plural class - marker of class \(\text{mi} (p.2.2.2)\).
2.2.2.13 Class prefix ma-

Ma- is a plural class prefix. Polouné sees its main function to be "to provide a plural for ji- class" and adds, "...his function of ma- has its origin in the early use of the prefix to indicate the whole set consisting of two objects" (op. cit., 99). This function of ma- can be extended as in the case of the prefix ja-. As such, ma- can be conceived of as a plural form for pairs and groups of things, and also as the plural form of all items which have been allowed into PI class 7 by the zero which occurs in this class as an allophone of ja-.

However, also listed as class ma- items are objects like maji 'water', maji 'oil', 'milk', maji 'milk' etc, which have been described by Polouné as indicating "non-identifiable whole" or "collectives". Although it is not necessary to perceive as a prefix the ma which occurs in the initial positions of these items, the items involved nevertheless express the connotation 'totality' or 'mass' - which is fairly relatable to that implied by the ma- prefix.

The ma- prefix has also been shown to function as a plural for certain yi-class items. However, Polouné's interpretation immediately raises doubts as to whether or not it is possible to contrast "abstract meaning" with "concrete objects" in a singular/plural correlation.

"In pairs involving yi- and ma-, yi- gives a definite abstract meaning to the word, whereas ma- points to the concrete objects concerned or to various processes involved, visualizing them as whole" (op. cit., 99).
However, the examples quoted by Pokorny such as:

"ulezi' 'tutorial activity'; malezi 'training' education,'
ulezi' act of eating'; malezi 'food', etc., are hardly convincing. The derivations of this type which end up taking this ma- seem to be quite independent of na- or any other singular form. They seem to function as the items in the second category above, which show ma- initially, but which have no singular forms.

There are nevertheless very few examples where ma-class items have been recorded as showing ma- prefix in their plural forms. Out of the 390 indigenous items used by Bryan and Slavikova (1973: 37-61) in a comparative study of Kimvita and Kunguza (the two major Kisswahili dialects) there are only three items for which proto-Bantu class la- (or class 11) items are shown to pair with proto-Bantu class 6. These items are:

a) mua/maa: 'night': marked as 14/6 in both Kimvita and Kunguza, but also as 11/10 in the latter;

b) uone/maone: 'sand': marked 19/6 in Kunguza only, but occurring as 9/10 in Kimvita;

c) atu/mate: 'bow': marked as 14/6 but only used in both dialects as special alternative to 11/10.

21. Of these two classes (proto-Bantu = la- and *ma- ) only la-class items show a possibility of pairing with ma-. Whereas, for example, notes ka... in Ken hills the plural corresponding to la-is ma-. In some other Bantu languages there is a parallel pairing of la- with *ma- but there are also a number of languages in which the singular la- pairs with plural ma-" (1973:162).
The pluralization of many other \textit{y}-class items with \textit{ya}- is seem to be only due to the confusion brought about by
differences in dialectal usage; e.g.

\texttt{ubungo} 'brain'; occurring only as \textit{(proto-Bantu class) 14}
in Kiunguja but as 5/6 \textit{(mungo/mabungo)} in Kivite;

\texttt{utya} 'cheek'/jaw'; 11/10 in Kivite, but occurring as
5/6 \textit{(tayya/matuva 'jaw', 'jawbone')} in Kiunguja;

\texttt{wala} 'illness'; marked as 14 only in Kiunguja. In
Kivite it is \textit{(proto Bantu class) 9 (ndwele)}.
This class 14 form has regularly been given a \textit{ma}-
plural in the standard dialect;

\texttt{uwala} 'millet', 'aleusine'; is shown to occur only as 14
in Kiunguja and only as 6 \textit{(nabela)} in Kivite;

\texttt{umwe} 'grass'; 11/10 in both dialects, but Kiunguja
\textit{--------} has a special form \texttt{umwe} \textit{(proto Bantu class 6)}
which has no singular, etc.

\textbf{2.2.2.14} Class prefix \textit{y}-

\texttt{This is the plural class - marker corresponding to}
class \texttt{hi- (2.2.4)} in all its aspects.

\textbf{2.2.2.15} Class prefix \textit{m-}

\texttt{This prefix denotes the plural class which corresponds to:}
\begin{itemize}
  \item[a)] \textit{y}-class (2.2.2.5) in all its aspects; and
  \item[b)] \textit{u}-class (3.2.2.6) items which are of proto-Bantu
  \textit{*lu}- class origin.
<table>
<thead>
<tr>
<th>Kenyan Class</th>
<th>Correspondence to Kiswahili</th>
</tr>
</thead>
<tbody>
<tr>
<td>gwr/<em>kw</em></td>
<td>Autonomous and Non-</td>
</tr>
<tr>
<td></td>
<td>autonomous living</td>
</tr>
<tr>
<td></td>
<td>things</td>
</tr>
<tr>
<td>l-</td>
<td>One of a set or</td>
</tr>
<tr>
<td></td>
<td>of a group</td>
</tr>
<tr>
<td>g-/<em>k</em></td>
<td>Protruding objects</td>
</tr>
<tr>
<td></td>
<td>and creatures possessing</td>
</tr>
<tr>
<td></td>
<td>protuberant parts</td>
</tr>
<tr>
<td>u-</td>
<td>Objects treated with</td>
</tr>
<tr>
<td></td>
<td>respect or fear (‘aboo)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Correspondence to</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td></td>
</tr>
<tr>
<td>**</td>
<td></td>
</tr>
<tr>
<td>***</td>
<td></td>
</tr>
<tr>
<td>****</td>
<td></td>
</tr>
</tbody>
</table>

* But comparable to Proto-Benzu-Chaga g-wa, concord and to /g/ and /s/ initials in gur-in ‘man’ (Nubia) and Lakes ‘king’ (Kuba) (s).  
** Comparable to Proto-Santu *h* still retained in Kiswahili as a concord affix for this class.  
*** Especially, as far as ‘things’ (tools, articles) and persons with defects are concerned.  
**** (For all classes listed here) comparable only as far as the contents involved go and not on the concept (‘aboo).
<table>
<thead>
<tr>
<th>Hebrew Form</th>
<th>Meaning</th>
<th>Corners to KiSwahili Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>li-</td>
<td>Plural of autonomous living things in class gw-/kw-</td>
<td></td>
</tr>
<tr>
<td>i-</td>
<td>Plural of plants and trees in class gw-/kw- and of all living things in other classes</td>
<td></td>
</tr>
<tr>
<td>av-</td>
<td>Set or group of things</td>
<td></td>
</tr>
<tr>
<td>ʌ</td>
<td>Plural of long things</td>
<td></td>
</tr>
<tr>
<td>ay-</td>
<td>Plural of iabor things</td>
<td></td>
</tr>
<tr>
<td>-qa</td>
<td>Plural of personal relationship terms</td>
<td></td>
</tr>
</tbody>
</table>

***** - The KiSwahili class does not include "all living things in other classes".
****** - Comparable to PrfBantu pre-prefix "ai" still retained as a concord for this class in KiSwahili.
******* - Containing equivalents.
2.3. COMPARISON OF THE TWO SYSTEMS

2.3.1. Morphological Comparison

At a class system level, a number of class - prefixes in the two systems can be said to correspond morphologically. For example, Hebrew's singular class prefixes, מ, ו, ה, and the plural class prefix ק corresponds with Kikwahili's ḫ-, k-, and the plural class marker ḫ-, respectively, in the manner described below.

2.3.1.1. Hebrew's Class prefix מ- and Kikwahili's prefix ḫ-

The Hebrew prefix form מ- morphologically corresponds to proto-Bantu (PB) and proto-Dene-Coneg (henceforth PC) class ḫ-. Kikwahili, a descendant of these language groups, does not itself show the form ḫ- as its class prefix. The form מ- has, however, been retained by Kikwahili as a pronominal concord affix for its class ḫ-, which matches Hebrew's מ-class.

2.3.1.2. Hebrew's class prefix ו- and Kikwahili's class k-

These class prefixes show a direct correspondence, both of them involving a vocal stop. The voiced variant in Hebrew also has its equivalent in other Bantu languages.

2.3.1.3. Hebrew's plural prefix ק- and Kikwahili's prefix ḫ-

The Hebrew plural form ק- can be said to be morphologically correspondent to a reconstructed PB class 10 prefix. This PB form occurs as a pre-prefix and is still being prefixed as ק- to ק- class prefix forms in certain Bantu languages (e.g.,...
Sulu inuyouki/inuyoyi 'bird'). A relationship between the Heiban prefix ku and um ('gwi-me') could be supported by the fact that both function semantically as plaurals of some 'long' items in the languages concerned.

However Kiwahili, which is said to have used the pre-prefix form in question in molokéi, op.cit., p93 now retains the form only as a nominal concord affix for its class 2 which matches Heiban class k.

2.3.1.4. Other morphologically comparable forms.

Also regarded here as morphologically relevant for comparison at a diachronic stage is Heiban's class from gwe/gwe-(2.2.1.1.)

This class, although not directly corresponding to its Kiwahili counterpart - prefix gwi-(2.2.1.1), corresponds in form to a concord affix gwi- which has been reconstructed for the PBC class matching Heiban's (See de Wolfe, 1971, 51.). Although the reconstructed class prefix for this particular class in the PBC system is shown as a vowel (a), there is a number of reconstructed noun forms which show kw- initially, and which correspond morphologically but, not necessarily cognates to nouns in Heiban. These

PBC = Proto- Bantu-Congo referring to an outline of the reconstructed class-system based on comparisms of individual languages of the Bemba-Congo group in Upper-Congo.

Nouns and:

<table>
<thead>
<tr>
<th>P.B.C</th>
<th>Hebrew</th>
<th>PE</th>
<th>Kiswahili</th>
</tr>
</thead>
<tbody>
<tr>
<td>* ḥwono 'chief'</td>
<td>ḥa-ḥwono 'man' of * ḥwono 'chief'</td>
<td>ṣumo 'chief'</td>
<td></td>
</tr>
<tr>
<td>* ḥweti 'woman'</td>
<td>ḥa-ḥweti 'woman' of. * ḥweti 'woman/wife'.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* ḥor 'tree'</td>
<td>ḥa-ḥor 'trees' of. * ḥor 'tree'</td>
<td>p-li 'tree'.</td>
<td></td>
</tr>
</tbody>
</table>

The /y/-prefix for 'persons' in Kordofanian languages has also been compared to noun forms with initial /es/ in such as gu-šu 'man' in Fulani and kabaka 'king' in Luganda (Gregersen, 1970:73).

2.3.5 Another item worth considering here is the widely acknowledged correspondence between Kordofanian y- class and Bantu ny- class (Greeneberg 1963). It is however important to indicate at this juncture that the Kordofanian class in question should appear as y-. Although this correlation is not aimed at questioning the validity of the earlier claims, specifying this position points to the existence of several other environments for which correspondences can be claimed concerning these prefixes and as a class generally.

It was indicated earlier that the Kordofanian classes y- and ny- are morphologically, semantically, and numerically distinct, and this fact needs to be emphasized for comparative purposes. It has to be noted, however, that both of these classes contain items which in Bantu belong to class ny- class in Hebrew, for example, contains items like gu-ša 'water', gana 'oil', goiši 'saliva', gu-ša 'fill', while class ny- contains items such as gu-ša 'eyes', gu-ša 'cinema', gu-ša 'cheeks', etc., but all the Kiswahili equivalents of the

23- In Kavutu dialect.

24- All the examples show the allophonic sounds /u/, /y/, and /t/ in the root forms.
above-mentioned items (k̲i-m̲ù, 'water', n̲a-f̲i'l̲a, 'oil', n̲a-s̲a'la, 'saliva', n̲a-s̲i'la, 'milk', n̲a-y̲a'i, 'urine', n̲a-n̲a-by̲u, 'cheeks') belong to class n̲g̲-. What requires attention here is the fact that it is not
necessary to treat the initial forms of the n̲g̲- class items above
and those of their Kiwahili equivalents as prefixes. The items
concerned have been allocated to these classes only on the basis
of the similarity of their initial forms to the class forms in
question, and even if treated as independent word forms, these nouns
could still be used in establishing the correspondence between their
initial forms /n̲/ and /n̲g̲/. The environments for their occurrence
may, however, be regarded as different from that involving the class-
prefix forms.

z.5.1.6.

Other correspondences between the two languages can be
traced beyond their class-prefix systems, although the two
languages are so distant—both geographically and in their
historical developments—that little real evidence of
correspondence can be claimed without a serious work on their
history. However, from a list of nouns collected for use in this study, the following examples are seen to show some morpho-
logically comparable features. (These are not necessarily cognates.)

<table>
<thead>
<tr>
<th>English</th>
<th>Nkùnù</th>
<th>Kiwahili</th>
<th>Proto-Bantu</th>
</tr>
</thead>
<tbody>
<tr>
<td>man</td>
<td>kw-o'mu</td>
<td>m-o'mu</td>
<td>*-o'mu</td>
</tr>
<tr>
<td>mouth</td>
<td>i-n̲u</td>
<td>ki-n̲u</td>
<td>n̲u</td>
</tr>
<tr>
<td>clan</td>
<td>g̲w̲-a'</td>
<td>n̲-a'</td>
<td></td>
</tr>
<tr>
<td>shade</td>
<td>k̲o'-e'</td>
<td>ki-e'</td>
<td></td>
</tr>
<tr>
<td>leaf</td>
<td>g̲-o'</td>
<td>t̲a'</td>
<td></td>
</tr>
</tbody>
</table>
From these few examples it is possible to say for certain that the /n/ sounds in Ndebele and Xitswana root morphemes for the word 'man' do correspond. These examples, isolated though they are, also point to the possible correspondence between nasals generally in the two languages. This latter point, together with the fact that nasals form the majority of class-affix forms in both systems (n = 4 in Ndebele and 6 in Xitswana), suggests a need for some serious attention to these sounds. And if, as has been claimed, nasals (especially /m/) in Bantu systems are Bantu innovations (Welmers, 1973: 208), then the points of divergence and convergence between Bantu and Ndebele languages will require explanation. Such study is beyond the scope of this work.

2.3.2. Semantic Comparison.

2.3.2.1. A substantial amount of items in Ndebele class gn-/lw- correspond semantically to items in Xitswana n- classes (A and B in the outline 2.1.2). In both languages these classes contain living beings occurring as human beings, animals, insects and plants. Both Ndebele and Xitswana also include some, although different, parts of the body in these classes (cf. Ndebele gw-liiny 'waist', gn-lw 'bladder', etc., with Xitswana n-wa 'tail', n-hupa 'heart', n-lw 'head', etc.). The inclusion of some parts of the body in these classes may be interpreted as implying that in both languages such parts of the body are conceived of as living or possessing life.
The Kirwahilli 2-classes have been conceived of as containing 'autonomous' non-autonomous living beings (Yoleh, 1967), respectively. In Hebrew, concepts somewhat related to these may be visualized through the way the items in class ge-/by- pair. It is observed that in Hebrew all non-autonomous living objects like trees in class ge-/by- and all other living beings allocated to other classes (showing overrides of other concepts; See Postscript 1.4) take class prefix ג- in their plural forms. The autonomous living beings (human beings, animals, insects) and parts of the body in class ge-/by-, on the other hand, take l̄-prefix in their plurals.

Examples of semantic correspondences between items in these classes are:

<table>
<thead>
<tr>
<th>English Class</th>
<th>Hebrew</th>
<th>Kirwahilli</th>
</tr>
</thead>
<tbody>
<tr>
<td>person</td>
<td>ג-יינ</td>
<td>מ-תע</td>
</tr>
<tr>
<td>man</td>
<td>ג-מס</td>
<td>מ-נס</td>
</tr>
<tr>
<td>medicine man</td>
<td>ג-מס</td>
<td>מ-גנש</td>
</tr>
<tr>
<td>chief</td>
<td>ג-слав</td>
<td>מ-לֶב</td>
</tr>
<tr>
<td>tree</td>
<td>ג-אר</td>
<td>מ-תי (pairing מ-תע in plural)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(with ג- in plural)</td>
</tr>
</tbody>
</table>

2.3.2.2.

Another conceptual correspondence is noted between the contents of class ̀l- in Hebrew and class ̀l̄-ז in Kirwahilli. Both these classes contain one of items that occur in sets/pairs and in large groups, including some parts of the body.
Examples include:

<table>
<thead>
<tr>
<th>English Gloss</th>
<th>Hebrew</th>
<th>Kiswahili</th>
</tr>
</thead>
<tbody>
<tr>
<td>egg</td>
<td>י-קָנָה</td>
<td>گ-کن</td>
</tr>
<tr>
<td>flower</td>
<td>י-כִּנָה</td>
<td>گ-خنا</td>
</tr>
<tr>
<td>grain stalk</td>
<td>י-קָנָה</td>
<td>گ-کن</td>
</tr>
<tr>
<td>trunk of tree</td>
<td>י-כִּנָה</td>
<td>گ-خنا</td>
</tr>
<tr>
<td>rooster</td>
<td>י-כִּנָה</td>
<td>گ-خنا</td>
</tr>
<tr>
<td>knot</td>
<td>י-כִּנָה</td>
<td>گ-خنا</td>
</tr>
<tr>
<td>a hole</td>
<td>י-כִּנָה</td>
<td>گ-خنا</td>
</tr>
</tbody>
</table>

2.3.2.3. Hebrew's class گ-کن and Kiswahili's class گ-کن

These classes also contain a number of items which correspond semantically. This correspondence is noted for a wide range of contents such as things generally (tools, articles, etc.) names of persons with defects, names of some insects and birds. Concerning the persons with defects, it may be interesting to note that both Hebrew and Kiswahili names them according to the characteristic of and/or effect upon the body parts involved.

Examples are:

<table>
<thead>
<tr>
<th>English Gloss</th>
<th>Hebrew</th>
<th>Kiswahili</th>
</tr>
</thead>
<tbody>
<tr>
<td>butterfly</td>
<td>י-שָׁפָר</td>
<td>گ-شفر</td>
</tr>
<tr>
<td>kite</td>
<td>י-שָׁפָר</td>
<td>گ-شفر</td>
</tr>
<tr>
<td>bird's nest</td>
<td>י-שָׁפָר</td>
<td>گ-شفر</td>
</tr>
</tbody>
</table>
### English  |  Shiban  |  Kiwahili  
--- | --- | ---  
**bush** | kẹ́jọ (no plural) | ki-cheka  
**shoe** | k-ẹ̀jọ | ki-ṣu  
**knife** | k-ẹ̀jọ (pairing with ny-) in plural | ki-su  
**pot** | k-ẹ̀jọ (" ") | ob-ẹ̀ngu  
**deaf** | g-ẹ̀rija | ki-ṣivi  
**humpback** | g-ẹ̀rija | ki-bíòngog  
**piece, section** | g-ẹ̀rija | ki-paünde  
**gourd** | k-ẹ̀kula(a long one) | ki-buyn  

#### 2.3.2.4. Long Things

The items designated as 'long' in the two systems belong to Shiban's ẹ́ and Kiwahili's class ụ̀.  

The following examples can be said to correspond semantically:

<table>
<thead>
<tr>
<th>English Class</th>
<th>Shiban</th>
<th>Kiwahili</th>
</tr>
</thead>
<tbody>
<tr>
<td>rib</td>
<td>ẹ́-iśi</td>
<td>u-bavn</td>
</tr>
<tr>
<td>jaw</td>
<td>ẹ́-iśi</td>
<td>u-bavn(English only)</td>
</tr>
<tr>
<td>tongue</td>
<td>ẹ́-iśi</td>
<td>u-bavn</td>
</tr>
<tr>
<td>wood</td>
<td>ẹ́-iśi</td>
<td>u-bavn</td>
</tr>
<tr>
<td>crack</td>
<td>ẹ́-iśi</td>
<td>u-bavn</td>
</tr>
<tr>
<td>cord, string</td>
<td>ẹ́-iśi</td>
<td>u-bavn</td>
</tr>
</tbody>
</table>
2.5.2.5. Abstract Nouns

Abstract nouns occur in Hebrew's class y- and Kiwahili's class y-. In both cases these nouns are derivations from nouns, verbs and adjectives in the two languages. The occurrence of abstract nouns in these classes appears to be the only factor that is comparable between them.

A semantic correspondence between abstract nouns (showing /y/ and /a/ initials) in the two systems is noted in the following examples:

<table>
<thead>
<tr>
<th>English Gloss</th>
<th>Hebrew</th>
<th>Kiwahili</th>
</tr>
</thead>
<tbody>
<tr>
<td>witchcraft</td>
<td>usea</td>
<td>ughavi</td>
</tr>
<tr>
<td>love</td>
<td>misiri</td>
<td>upendo</td>
</tr>
<tr>
<td>stealing</td>
<td>yatem</td>
<td>wisi</td>
</tr>
<tr>
<td>a quarrel</td>
<td>píáuro</td>
<td>upoovi</td>
</tr>
<tr>
<td>fear</td>
<td>píensy</td>
<td>upum</td>
</tr>
<tr>
<td>idleness</td>
<td>píáma</td>
<td>uvivu</td>
</tr>
</tbody>
</table>

2.5.2.6. Augmentatives, Diminutives and Place.

At present very few, if any, Bantu languages possess a separate class for augmentative nouns. In many Bantu languages the augmentatives are derived by the use of ji of PB class 5 (see example in 2.2.2.3) from the diminutive forms which such languages appear to have separate classes for (i.e. PB classes 12 and 13). Kiwahili which was noted to lack separate diminutive classes seems to be the only example at hand making use of ji.
2.3.2.8.

Heiban's $\underline{\text{j}}$ class and Kiswahili's $\underline{\text{vm}}$ class are both plural-markers for autonomous living beings in classes $\underline{\text{g}}\text{-}$/$\underline{\text{mv}}$- and $\underline{\text{m}}$, respectively. It is only their function as plural-marker for items contained in these classes that is comparable.

2.3.2.9.

Heiban's $\underline{\text{m}}$ class and Kiswahili's $\underline{\text{ma}}$ class can also be said to be comparable on the basis of their function as plural classes containing sets and groups of objects.

2.3.2.10.

Some items in Heiban's $\underline{\text{j}}$ class and Kiswahili's $\underline{\text{mi}}$ class can be said to correspond semantically as plurals of non-autonomous living objects.
2.4. CONCLUSION:

The direct and indirect morphological and semantic correspondences which have been cited extensively above suggest that some relationships exist between these two isolated descendants of the usually postulated Nilo - Congo and Kordofanian language - groups -Nevertheless, because this study has considered only one aspect - the noun - class system - and thus synchronically, it is safe to assume only that these languages have related noun - class systems.

As has also been noted above, further elucidation of the histories of Nilotic and Kordofanian in particular, and of their language - groupings generally, is necessary for establishing the extent and nature of the relationships which are intimated by this study. In this respect, this thesis represents an example of the detailed linguistic data - analysis which seems vital for postulating genetic relationships among languages, and filling the gap in African linguistics noted by Bully (1970:147 - 171). The establishment of systematic noun - class relationships across the large number of languages thought to be genetically within the Nilo - Congo and Kordofanian language groups would seem to be a logical outcome of this thesis.

The table which follows exemplifies the types of data and correspondence with which such further study would be concerned.
<table>
<thead>
<tr>
<th>Kordofanian</th>
<th>Bantu</th>
<th>Plateau</th>
<th>Cross-</th>
<th>Jukunoid</th>
<th>Bantu id</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDE</td>
<td>PE</td>
<td>(Holbe)</td>
<td>(Ijawhi)</td>
<td>(Eje)</td>
<td>(Kuk?)</td>
</tr>
</tbody>
</table>

<table>
<thead>
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<th>*a</th>
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+ Has a *ng- concord.
++ Other Kordofanian descendents have labial prefix *p- and *b- for this class.
+++ Has a *l- concord.

These direct correspondences, in addition to those examined at length in this thesis, suggest that Greenberg's classification of Kordofanian and Niger-Congo as separate units of Niger-Kordofanian -- and of Jukun - Congo within the latter unit -- may be too distant. Kordofanian, rather, seems to be related closely to Sameu-Bongo, and may even be subsumed within the Niger-Congo grouping. Should this prove to be the case, this suggestion would be the most significant contribution of this thesis to African historical and comparative linguistics.
BOOK-CLASSES: A BRIEF HISTORY

1.1. Noun-Class Languages

The notion of noun-class has been recognized for a number of languages and is seen to have a variety of morphological and syntactic realizations and semantic bases (Dixon 1968:196). Noun-class systems have been considered a characteristic of a large proportion of African languages, and most of the languages so classified are Bantu languages found in the southern parts of the continent, roughly in the area south of the Equator — although there are pockets in this region where non-noun-class languages like the Khoisan groups in South-West Africa and central Tanzania are also found. A substantial number of languages in West Africa — all E Wiley-Winge groupings except the Basem Congo — have been considered to show varying or less developed forms of noun-class systems. In the Nuba Mountain areas of the Sudan, there is also a small but important group of noun-class languages and towards the north of the continent there are ones which include languages noted to show both the noun-classes and gender in their structures (Roeper and Bryan 1968:198). Noun-classes have also been established in Languages outside Africa — especially in Australia, parts of Central America, and the Caucasus.

1 For the definition of gender see 1.3.1.
affixes which mark the agreement between the nouns and the other grammatical categories in the syntactic structure. A noun-class may also be noted to show a degree of semantic correlation. Scholars have often differed in their choice of which one of these features to use as a basis in defining noun-class. Most of the early studies often dealt with nominal affixes in describing and analyzing noun-classes but the majority of recent studies have tended to show an inclination to favour concord as a basis for defining noun-classes. The semantic properties, on the other hand, have in most cases been regarded as too irregular to satisfactorily act as a basis for definition.

The reasons for favouring either one of these features have also differed according to each scholar’s choice although they generally appear to be technical in nature. De Wolf (1971), for example, favours nominal affixes on the grounds that they make the category of gender selective. Hains (1968), on the other hand, prefers to base his definition of noun-classes on concord because “it helps reduce the number of classes considerably” (op. cit., 56). Similarly technical in nature is the definition deriving from a semantic basis which views the noun-classes as “the rank-ordering in the quality of beings” (Burton and Kirk, 1976:151).

However, the difference among scholars over which noun-class feature should be taken as a basis for definition is seen here to be mainly due to the closely interlocking nature of the various

3. This, probably, concerns the nouns which have zero-affix but which share concord with nouns in other classes, whereas concord is used as a basis they become classified with such nouns instead of being kept in separate classes.
distinguishable elements in a noun-class system, a factor which seems to project each of these elements as showing some truth acceptable as basic to the notion of noun-class.1 Prompted by this fact, some scholars have suggested recently that several of these elements should be taken together when defining noun-classes. Wemmers (1973), for example, writes in this connection and with reference to Bantu:

"Bantu noun-classes must be distinguished and defined, therefore, not simply by noun-prefixes but in addition by morphemes such as the pronoun prefixes ... which stand in general agreement or concord with noun-prefixes. It is the combination of the noun-prefixes and the concordial morphemes that is significant" (pa. 162, 163).

It is known, however, that in any noun-class system there are many nouns which do not show the nominal affixes while concordial affixes do not universally characterize all noun-class systems; these facts appear to leave intact the question of the base which could provide a universally applicable definition of noun-classes. However, the position of noun-classes as a syntactic phenomenon showing either one or several of the elements in question seems to be the only relevant structural factor in distinguishing these systems from other systems of language - structure.

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1 This fact remains despite the expressed necessity for the linguist to select the most suitable element of all the elements that offer themselves. But such a selection is always only intended to suit the particular aspects of noun-classes one is out to analyze.
1.2.1. "Noun-classes" and "Gender"

The usage of the terms "noun-class" and "gender" has been a subject of great controversy.

Gender, which is generally understood to denote or at least to include a sex basis, (e.g., et al., 1940: 176) has been used by the early Proto-Germanic (Guthrie, 1946) to refer to noun-classes. Guthrie (1946) also talks of "one-/two-class genders" with reference to noun-classes, but Blau (1968) considers gender as a "particular instance of the category noun-class."

However, although the use of the term gender to refer to noun-classes has now been accepted, it is noted that its use with the implication of sex-correlation remains unsuitable for some and other non-class languages whose classes show no semantic correlation with sex. The applicability of gender to these languages will be discussed in detail below.

1.3. Elements of a Noun-class System

A noun-class is seen to be complex in nature in that it "comprises various distinguishable and yet closely interlocking elements." (Beckford, 1964, p. 27). Beekes lists these elements as the shape of nominal affixes, shape of concordial affixes, number, paired noun affixes, paired concordial affixes, gender and semantic properties. In describing and analyzing a noun-class system, Beekes thinks it is possible to take these elements either separately or conjointly. However, he further
notes that the results of any analysis of noun-classes depend on the number of these elements taken into account (ibid., 27).

In this study it is considered necessary, first, to describe separately some of the main elements appearing in the preceding list. Later, however, a conjoint treatment of some of these features will be provided in an attempt to explain some outstanding cases.

1.5.1. Nominal Affixes

It has been observed in Bantu languages that very large numbers of noun forms can be readily analysed as consisting of a prefix and a stem (Welsers, 1954, 156). But also in this same group of languages, there are numerous instances of a single noun form which includes two, three, or even four different class prefixes in a sequence (ibid., 156).

Other nominal affix characteristics are also noticeable in certain noun-class languages outside Bantu. For example Hoffman (1967) observes in connection with the nominal affix systems in West African languages:

"Amongst the West African languages there are some using only class prefixes (e.g. Kamba) and a number of other Nigerian languages, some using only class suffixes (e.g. many of the Ibo languages, Tula, Longei, etc.) and some using both prefixes and suffixes in varying degrees (e.g. Tiv in Nigeria)"

(op.cit., 256).

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5- Most Kinyarwanda nouns, for example, consist of a prefix and a stem, e.g. m-tu 'person.' Two prefixes and a stem are found in other Bantu languages such as Sasa om-nuha 'person,' while three prefixes are seen in Sulu class 11-17-G before a stem, as in jui-ba-ngi 'birds.'
The occurrence of several prefixes before some stems in Bantu languages (see footnote 4) has often led to a demand that one of these be used in analyzing a noun-class. Welmers notes in this connection that "in such cases a stem with one prefix is taken as a 'base' and to this entire base a further prefix is added; such a form may then be treated as a base to which another prefix is added" (1959). The /i/ element in Kiswahili (a proto-Bantu *gi/*), whose position has been controversial, is used in deriving augmentatives in Kiswahili. However, this same /i/ is also apparent in the diminutive forms of Kiswahili, being retained after a diminutive derivative prefix *ki- and has always been treated as a prefix in augmentative derivations as well as a 'base' in diminutive derivations. These facts led De Wolf (1971: 79) to consider this element to be an 'aberration', especially in connection with augmentative plurals where it is also retained after a plural prefix. However, when used in deriving augmentatives, this element is treated as an integral part of the word while in the case of diminutives it was seen to imply that diminutives in Kiswahili are only derived from the already augmented forms (see 2.2.3).

1.3.2. Subclasses

The systematic presentation of nominal affixes for various class systems has brought about other nominal class suffix forms which are referred to here as subclasses*. The term subclass is

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6. The term 'subclass' appears in F.D.N. Winston's paper "The nominal class system of Loko" (1965:38) and is used with a similar implication.
being adopted here to refer to a subdivision of the traditional classes. They form a few 'classes' which Welmers notes to have been found in only a few languages added to the list first drawn up by Neihof. The Proto-Bantu list of prefixes (See Appendix A) shows only five such classes: la and 2a (added by D. Cole), 3b and 6x (added by D. Cole) and 6a (added by Welmers), but similar class subdivisions have also been recently listed for individual languages. 7

Bematt (1970) notes that subclassification in recent works involved only "the set of nouns lacking a trace of a prefix" (pp. 313, 69), and that such classes are given numbers determined by that of a traditional class with which they agree in concord. It is observed, however, that the majority of such classes (four out of five) in the proto-Bantu list have prefixes. This is also true of the examples listed for individual languages — which clearly suggests the existence of other criteria for determining such classes.

When Welmers identified 6a, he did so on distributional and semantic grounds as he had noted 6 to be plural pairing with 5, but 6a as numerically neutral, indicating liquid masses. Classes 2a and 2b in the proto-Bantu list (reconstructed as 8a and 8b, respectively) only show a phonological difference from proto-Bantu (Pa) 2 (wa), and are said to be "very nearly in a complementary distribution among Bantu languages." (Welmers, 7-8)

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7- Whiteley, for example, identifies 5a/6a (zi/-mo-), 7a/6a (zi[- yi/-zi]) and 10a (u-) for Kwakwialt. He had (Whiteley 1961) identified 1a/2a (ma/-male), 1b/2b (u/-apu-) and 6a/6a (likom/-makom) for Tsim.
Classes $\beta$ and $\delta$ (cf. §§111 and 111 respectively) differ in form, but are also said to be very nearly in complementary distribution, although the latter is absent from Western Bantu.

On the basis of the preceding information, one finds it reasonable to view the majority of the subdivisions of classes in the proto-Bantu list simply as formal dialectal9 variants of certain established nominal prefix forms. Were this the main basis for the recognition of subclasses, it is difficult to see how such subdivisions can be applied to single prefix forms established in individual languages; and, as most of these are only phonological or morphological variants, one fails to see how the semantic factor applies especially when semantic heterogeneity continues to be acknowledged as an aspect of most classes.9

2.5. Other variant prefix forms.

The other variant prefix forms occurring in all noun-class languages are:

1) allomorphic variations for certain established prefix forms, usually determined by environments in which the prefix form occurs;

2) the absence of prefix forms from certain noun stems - a feature generally marked by what has been termed a "zero morpheme."8

8- These are shown as forms which occur in certain dialects only. Their positions, therefore, differ from that of the allomorphic variants discussed in 1.5.3.

9- For Welmers' $\delta$ and Whiteley's subclasses recognized for Kiswahili, see class analyses in Chapter Two where their positions are questioned.
Allomorphs of nominal affixes

Most of the established affix forms in various noun-class systems show allophonic variations which are due to the phonological conditioning of the affix, by the initial sounds of the stems to which they become attached. Most affixes vary according to whether they precede a vowel or a consonant. Such variations are usually easily predictable through articulatory processes, but these processes may at times become very complex indeed, yielding sounds which may not be easily accounted for. There are variations which have lost some of their sounds and others for which totally new sounds have appeared. Kikuyu, for example, is seen to have lost one or more sounds in words like name 'husband', muga 'god', moto 'fire', and obtained a new sound in a word like meno 'teeth' (from am wino): this has led to such words being considered exceptional or irregular.

Nevertheless, the presentation of various allophonic forms for all affixes concerned in a system has always been considered possible. Their usual omission in formal presentations has largely been due to the previously cited desire of some scholars to present only the overall system. Occasionally, however, their presentation may prove cumbersome, especially in cases where one affix form (like in Kikuyu) happens to show several allophonic forms.11

10- For Nyoro and Kisiwahili variants see 1.1.4 and 1.2.4, respectively in Chapter 3.

11- Heine (1970:154), however, managed to present such class allophons for Basile. His presentation above, for example, 3 allophones for Basile class 1/3, 2 for class 1/4, 2 for class 2/5 and 1 for class 3/6/4.
The Zero Affix

It has been customary for scholars to posit a zero (\(\emptyset\)) feature for those nouns which do not show any affixes. The position of 'zero' in such instances has, however, been very controversial; Bennett (1970), for example, observes that "it is in many ways unsatisfactory to treat nothingness, \(\emptyset\), as a morpheme, a unit in the structure of language" (op. cit., 53) but adds that "there seems to be no other way to distinguish these classes morphologically; thus one is forced to recognize them as distinct on the basis of concord ..." (ibid.)

In this attempt to analyze the zero as it is visualized in a class system, it is considered appropriate to limit the occurrence of this feature to nouns. Bennett's extension of this feature to represent several \(\emptyset\) classes in English is seen here as misleading because of the methods he used in obtaining them. For Bennett, who based his analysis on concord, no recognition should have been given to such classes in the first place, since these are the types of "classes" which an analysis so based aims at pruning — on the grounds that the nouns involved are taken to belong with those with which they agree in concord: concord in such instances becomes an identifying factor rather than a distinguishing one. It is observed in this connection that all nouns lacking affixes agree in concord only with those nouns belonging
to classes whose affix forms have a zero as their allomorphic variant. In Bantu, for example, all the nouns showing the absence of affixes morphologically belong only to either one of the three proto-Bantu classes 5 ( * -de *), 9 ( * -se *), and 10 ( * -ne *).

12. This seems to be true also of noun-class languages other than Bantu. For example, Tiv (Tivoid) has zero as an allomorph of its class 1 ( * gb *). Heiban (Kordofanian) also has 'zero' as an allomorph of its class 1 ( * gw-*kw-); and, of the 4 'zero prefixes' which Hoffmann (1937, 234 fl.) marks for Hadza (belonging to Plateau sub-group of Dennis-Cogo), one ( * -u *) is clearly an allomorph of *g- and/or *k-*, all of which are shown to be plural of *k-. The others (singular *g-* 'm-') and its plural *g-* 'n-*' clearly form one suffix class. Although Hoffmann regards this plural suffix of animate nouns as a "further exponent of the noun-class already indicated by the prefix" (op. cit., 943), the situation is quite comparable to such suffixes which are treated as affixes although showing "a significant constant permutation." It is therefore only the remaining one ( * -u *) which, on the basis of limited data, cannot be easily accounted for here.

13. Even the examples *ibhe/*e-he/*the father", and *hinya/*e-hinya/* strength" listed by Bennett (op. cit., 52-53) as belonging to group 2e and 2d (PB classes 1 and 3), respectively, in his Table 1, are morphologically proto-Bantu class 5 items. The retention of the latter in that class, even concordially, is highly doubted here.
The prefix forms of these classes in most individual Bantu languages have zero as their pronominal allomorph. In Koromansian languages, and Hidun specifically, class 1 ([gə]/*[gə]*) has a zero allomorph. It is this class which accommodates many affixed nouns.

It seems therefore that in these circumstances zero need be regarded only as an allomorphic aspect whose occurrence with certain specific class prefixes allows for the absorption of non-prefixed nouns into the classes concerned. If, therefore, a morphological distinction of non-affixed nouns (not ‘class’) is necessary in a noun-class system, a zero may be indicated as an allomorph for nominal affixes representing nominals with which the non-affixed noun agrees in concord.

1.34. Pairing, Gender and Number

The formal presentation of the nominal affix forms has often demanded a precise method of annotation. Welmers (1973) describes the method which has been in use for such a purpose in Bantu languages as follows:

In many Bantu language grammarians, according to Welmers, it has been considered convenient to say that a pair of prefixes — singular and plural, represents one ‘class’ of nouns.

14. The three classes are confirmed in Merseby by Whiteley (1967) in his statement: “Zero affixes are possible only in these classes” ([op. cit., 163]). He lists these as 5, 7 and 10.

15. In most other cases the allomorphic variation tends to be a pronounceable feature (cf. Welmers, [op. cit., 163]).
In synchronic studies, class has been defined as "a set of nouns of a given concord showing a given prefixed morpheme" (Bennett, op.cit., 94). Pairing has been defined as "a set of two class components constituting one gender" (De Wolf, op.cit., 43). However, this set to signal singular and plural alternation, as well as class.

However, the position of a paired set as an entity has been questioned recently. Welmers (1973), for example, notes that 'pair' is only evident statistically and not on any formal basis, although most noun prefixes in Bantu languages function as members of a singular - plural pair. He adds, nevertheless, that "for some pairs there is at least a partial semantic correlation" (op.cit., 181). Bennett (1970), on the other hand, thinks that pairing is irrelevant to class and questions the part pluralisation plays in determining class affiliation.

Bennett's statements about pluralisation require some co-ordination before any comment can be made; he notes pluralisation (in Kiwuyu) to be comparatively easy to predict; it is for him only a formal change caused by substituting one prefix for another. He accordingly defines gender or pairing as "a set of noun stems belonging to one specified class and group in the singular and another in the plural" (op.cit., 74; emphasis supplied). Finally, Bennett - for reasons such as irregularities in pluralization and its similarity to various
types of derivations in Kikuyu – suggests the separation of these processes from class, if it has to be described at all.

The separation which Bennett thinks necessary here raises questions about his concept of these processes in relation to class. For instance, apart from the prefixes which Bennett notes to accompany these processes (pluralization and derivation) and which when substituted or added lead to "a semantic change and a shift in group of the nouns concerned" (1958), what else is there about these processes which makes them important for the complete description of a noun-class system and yet separate from, and irrelevant to, class?

The realization of these processes is only possible by way of affixes which accompany them and upon which the groupings of the nouns concerned are based. What is seen to be inconsistent in Bennett's position is that although he acknowledges the necessity of determining "the prefix morpheme in question," he goes on to base his definition of pairing on "a set of noun stems." Such a position could be understood to imply a marked significance of nominal stems (as opposed to that of nominal affixes) in the analysis of nouns in a noun-class; the noun stems are, however, not a class characteristic, and although various invariable stems (from which different nouns having different affixes, and thus belonging to different classes, derive) are known to exist, their position as a point of reference when analysing a class is irrelevant. Yet it is this irrelevancy which Bennett seems to attribute to the processes which he notes to influence the stems.
Pluralization is seen to have a significant role in certain noun-class languages. In Hesban (the Korofarian language under study), for example, one particular plural class prefix is often used to pluralize all items which are basically related but are allocated to different classes on the basis of various concepts. Hesban's class 1- is one such class, and pluralizes, for example, all items referring to plants in the singular class by-/ay- as well as those referring to plant products (fruit, wooden articles, etc.) in the singular class ay-/-a-. These classes contain items which themselves become pluralized by other class prefixes16 - which may be interpreted as a distinctive role for plural prefixes in this language. A survey of the (Korofanian) which Arnett (1967:61) notes to show "two or three plural classes corresponding to any given singular class" may reveal a situation similar to that in Hesban concerning the role of plural prefixes.

What seems to have evoked concern about pairing in noun-class languages is the occurrence, in most classes, of what Arnett (1967) terms "abstract, collective and other nouns to which neither singular nor plural meanings can be assigned" (op cit, 61). Arnett, for example, places one of the classes (16 of 24) class or group in his presentation known to contain these categories of nouns and numerals:

16. There are, for example, items in Hesban's ay-/a- class such as l-ay- 'armpit', k-say- 'ears', g-ay- 'breast', etc., which pair with ay- prefix in plural and others such as gil- 'shoulder', g-ir-gi- 'neck', g-ir- 'ear', k-ir- 'wing', etc., which pair with ay- in plural. (For details see Chapter 2 Section 2.)
"A noun in group E, whether plural or collective, whatever its singular if any, whether the singular prefix is present or absent, whether the plural or a derivative abstract or otherwise, behaves exactly the same conversially as do all other nouns in group E." (Oyeniyi: 54).

He uses this point of view to argue against pluralisation and derivation, both of which he considers to be irrelevant to a consideration of class. But what seems to be worth investigating further here is whether or not number is involved in making all nouns in such a class behave exactly the same.

It has been observed that noun-class and number are general linguistic categories which are notionally quite distinct but that class and number may not be separable syntactically (Dixon 1968: 112). Dixon notes in this connection that "thus in many African languages 'noun-classes' is used to refer to a conflation of class and number" (ibid.). In the traditional studies, a noun-class has customarily been viewed as numerically either singular or plural only. However, in recent studies (of Wemmers, 1975) the term 'neutral' has been introduced and applied to cases involving the categories of nouns in the example above, and this has led to various numerical interpretations of noun-classes and of each of their content items. For example, Wemmers marks as numerically neutral five out of twenty-three classes listed for proto-Bantu, and divides class 6 (Fig. 2a) into two class 6— which he marks as 'plural', and 6a— which he considers to be neutral, the former containing countable items while the latter contains "liquid mass." Wemmers further marks two (or even all the three) number labels17 for each of the few classes occurring

17— For example, he marks class 17 as "plural/neutral"; class 18 as "singular/plural/neutral"; and class 19 as "singular/plural (Oyeniyi: 165)."
in the Proto-Bantu list, implying that the items are numerically different in each of these classes.

The issue which is less easy to comprehend is that a numerically neutral object is in the English language. Although it is always possible to view abstract, mass or collective nouns as numerically neutral, such neutrality means only a psychological impression — which can not attain syntactic expression. For example, while it is possible to view an object like water in English as numerically neutral its syntactic use with the auxiliary "is" implies its treatment as a single unit, and thus as numerically singular. In Kikuyu, liquid mass is syntactically treated with plural elements and is thus perceived as plural, while abstracts receive singular treatment syntactically, and mass are singular. In Kikuyu, both liquid mass and abstract nouns belong to a singular class X.

Accordingly, number appears to be the feature which causes nouns to behave in a consistent manner, for all nouns (including 'abstracts', 'collectives' and any other) are numerically realizable only as singular or plural, although all singular nouns do not have plural forms — and vice versa.

In concluding this subsection, it seems reasonable to accept Guthrie's (1967) approach to getting which first lists the prefixes which are generally considered to be singular and marks the prefixes with which they usually pair. In this list (op. cit., 346, 347) it is indicated that a singular class — prefix may or may not pair with any one or more plural prefixes. This is as
true of Bantu as it is of other noun-class language groups (see the previously cited Belmoe and liv examples). This approach certainly satisfies the "semantic, statistical and pedagogical" conditions which Velders notes to be the only merit in the pairing of forms. Otherwise each singular and each plural noun prefix has to be individually described in each case "as (Velders, op.cit., 192) suggests.

1.3.5 Concord

Concord has been defined as "a system in which two or more sets of inflectional class affixes (indicating gender and number) are attached to different lexical items, provided these lexical items comprise the noun stem of the class language involved and at least one type of modifiers or substituties of these nouns" (De Wolf, op.cit., 21).

In his study of Kiwahili, Madan (1921) noted that language to have two distinct sets of concord, which made Kiwahili more difficult than those having only one set. He further pointed out that both sets of concord - the pronoun set - as entering far more widely into the structure of the language (op.cit., 22).

Madan's appreciation of the extent to which concord enters into the grammatical structure of the language is noteworthy for this study because it involves the fundamental aspects relating to concord in particular and to noun-class systems in general. Concord

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18 For the say 'set' is used for concord in these languages refer to Chapter 1 section 2 and its footnote 11.
has often been used in defining noun-classes: Heine's (1964) view that the definition of noun-classes based on concord helps to reduce the number of classes considerably confirms the view advanced by Fle Wolf that when each element of a noun-class is taken into consideration, different results are obtained. This view also shows the manner in which the greater number of noun-classes -- distinguished on the basis of noun-affixes and to which problems of precise presentation have often been attributed -- could be handled to reduce inconveniences. However, the role of concord in distinguishing and defining noun-classes has been seriously challenged.

Further research on noun-class languages has found that they differ greatly in the various aspects which are related to concord; while some show concordial elements of various types and quantities, the others show none at all. 19 This confirms, at least, that a noun-class language does not have to possess concord to be a noun-class language. 20 However, what has been kept (and may continue to keep) concord prominent in discussions of those noun-class systems which have concord is its undeniable function in indicating agreement within the broad structure of languages. As far as the distinctive and the definitive functions are

19- De Wolf (1971) observes that there are "a few [Kwano-Dogu] languages without concord" (op. cit., 20). Hughes (1973) says of Degum: "There is no concord of any type in Degum..." (op. cit., 225) (Degum is an Edo Language belonging to the Eastern section of the Eba branch of Nigcr-Congo).

20- This is the position taken by Gerhardt (1965-1969) quoted in De Wolf (op. cit., 35).
concerned, concord has often been introduced only when and where the characteristics of nouns have proved to be inadequate in determining their class membership. This has always been the case with nouns which do not show any affixes, and those whose affixes have several variant forms. But while there may continue to exist a need for this function of concord in distinguishing noun-classes, the latter assertion by De Wolf that "all that is necessary is that the membership of a given noun to a given gender category must be shown by the noun itself" (op. cit., 35) appears to deny it a role.

The noun is always considered a combination of stem and affixes, and where the affixes are not overtly zero (φ) feature is often assigned to the nominal position. But while the emphasis upon the affixes making the "category of gender selective" may well justify the exclusion of concord, De Wolf’s suggestion that it is only the affixes which determine a "true noun-class system" (ibid.) is questionable. The main argument here is that the concordial neologisms (where they occur), although occasionally showing forms differing from those of nominal affixes and thus being considered distinct, are very closely interlocked with the latter. For this

De Wolf cites concord in order to allow the inclusion (into his analysis aimed at reconstructing a proto-class system free feature shown by a substantial number of languages) of those languages that do manifest the full array of class prefixes with nouns manifesting those gender classes but showing no concord" (op. cit., 55). It should not, however, be forgotten that the absence of the concordial elements in these languages has continued to be regarded as being due to their loss through the tendency towards the simplification of the noun-class system.
reason, one wonders whether they should not also be considered as characteristics of the noun itself in the broad structural contexts of these languages. Indeed, no matter how selective the affixes may make the category of gender, the fact remains that they limit the description of a noun-class system to some. But a true noun-class system necessarily involves the structure of the language concerned and thus can only be fully established when all distinguishable elements connected with such a system are included in its description. Accordingly, a logical option is to try to determine precisely how all these elements can satisfactorily be included in a description. So far, there has been an acceptable attempt to utilize some of the elements unlocked in analyzing particular aspects of noun-class systems, but there still remains a need to answer what Bennett has termed "many questions in synchronic description of noun-class systems."

1.4 The Semantic Properties of Noun-Classes.

There are a number of studies which have attempted to show the semantic properties of noun-classes, and this topic is as popular as it is controversial.

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22. What is termed "unlocked utilization of elements" refers to cases where only one of the noun-class elements is selected for use in achieving the aims one sets for his study. An example here is De Wolf's exclusion of concord when he sets out to establish the noun-class system of proto-Bantu-Congo. He only uses noun class affixes for this purpose.
The correlation between classes and ideas was first questioned by Guthrie (1948) who categorically stated that "there is no correlation of genders with sex reference or with any other clearly defined idea" (op. cit., 15). Later writers (Beattie 1968; Voreley 1974) criticized Guthrie for this statement, noting that he contradicted himself in this same work. Dixon (1968) later noted:

"Although noun-classes are recognized as a syntactic phenomenon ... it is an empirical fact that they seem to have some degree of semantic correspondence" (op. cit., 317).

What seems to be the real issue, however, is whether such semantic correspondence can have its roots established in the same manner as those of gender. It is widely known that in gender languages nouns fit into certain semantic patterns based on sex which are realized as masculine, feminine, and neuter. Studies of Anga and other noun-class languages have shown, on the other hand, that noun-classes have no semantic correlation with sex. Most of these studies have sought without success other semantic bases which might correspond to noun-classes in a regular pattern or provide rules for noun-class membership. The resolution of this topic has therefore, in most cases, been left to those who are born in and also understand the social and cultural environments of these languages (cf. Whiteley 1961; Dixon 1968; Creider and Penny 1976; Burton and Kirk 1976; ).

In fact, Dixon (1972) uses his knowledge of the socio-cultural environment to explain why certain items which appear exceptional belong in the noun-classes of a particular language of North Queensland, Australia.

Whiteley (1961) noted that the problem of meaning in classes had in the past been approached in two ways, which he describes in the following manner:
"By the first, underlying meanings are set out as the basis of samples to hand and exceptions noted but then dismissed. The second, on the basis of both the factor and the denotation of the exceptions suggests that the allocation of items to classes is quite arbitrary and not subject to systemization" (op. cit., 23).

On the basis of the data on Yeo classes which he studied, Whiteley continued to maintain a glimpse of hope that "there would appear to be some system in the arrangement of items into classes" (1914). He based his hope on the "exceptions" about which he further said: "it is surely on them that one ought to focus greater attention ...." (1914, 24).

Krapf (1860) attributed the meaning of classes to the "deeper recess of a South-East African mind." While meaning in every language is relatable to the human mind, its realization is usually through a syntactic structure; for example, most noun-class affixes tend to represent semantic properties, usually as indicators of certain generic categories and as derivative forms conveying some specific semantic connotations. These are the semantic connotations which one easily senses in the nominals of various forms appearing in a class system, and which have led people to operate on what Dally (1969) terms the "assumption that class is a linguistic category which represents some semantic value at the same time formally homogeneous." (op. cit., 7).

The constantly admitted failure of the pertinent research to establish the definitive identity of form and meaning is seen here to be due partly to the strict adherence to the above assumption and
partly to the scholars', general conception of certain nominals as semantically equivalent when, strictly speaking, they need not be so. While the reality of the above assumption is fairly admissible, its wholesale application to the analysis of form and meaning seems to be less realistic, especially when it comes to dealing with what are usually termed "exceptions." The exceptions to the assumed pattern are usually conveniently declared as possible cases of arbitrariness in the language. Although arbitrariness is admittedly known to operate more or less naturally in word-forming and meaning-exception procedures, its application to exceptions can be seen to imply that all possible semantic insights about the items have been exhausted. Such an implication surely contradicts the scholars' frequently admitted lack of intuitional insight into the language features in question, although it serves to justify the re-examination of "the problem of meaning in classes" via the semantic importance of elements which are exceptional in that their affix shapes differ.

Before moving on to investigate what may now be termed the "true semantic status" of the exceptions, it seems convenient to accept as a fact that the nominal affix shapes do themselves provide a system which can be generally regarded as reliable and relevant for both morphological and semantic analyses. It should be observed in this connexion that morphologically no class ever allows in it any nominals with differing affix shapes(excluding its allomorphic variants); also, as a recent work has pointed out, noun-classes may effect judgements which people make of the semantic

23- This mainly concerns the exceptions which have been shown to exist by all the previous works I know about.
similarity of words" (Burton and Kirk, 1996: 197). This systematic view of the class shapes seems to be a basis upon which a systematic treatment of exceptions can be developed, and so this survey operates on the premise that the nominals which are morphologically similar (i.e., class shapes) are also semantically related or might justifiably be so judged. First, we attempt to account for the semantic similarity which is usually claimed for morphologically dissimilar nominals.

The establishment of semantically similar items has usually followed the general but regular pattern of a scholar marking out a particular class as designating certain objects which convey semantic connotations such as "human beings" or augmentatives etc., and after a presumably serious survey of the whole class system in this manner, finding certain items which, although realized as semantically similar to the others already established, are morphologically allocated to other classes. These latter are the items which form the "semantic exceptions" that usually blur what should otherwise be a systematic correspondence between form and meaning.

However, Kurylowicz's (1955) remarks concerning the various impressions there are about meaning show that:

"The most important is the main meaning, that is to say, the meaning which is not determined by the context, while the remaining (specific) meanings supplement the semantic...

28- Whitley (1967) does this for Kiswahili and finds, for example, that:

"Items in class 1/2 designate human animals... Items designated human animals may however, be allocated to any of the classes 3-10..." (op. cit., 167)."
elements of the main meaning with contextual elements" (ibid., op. cit., 22).

What may be generally noted concerning the noun-class systems is that their representation of the "main meaning" is fairly genuine and precise; the occurrence of classes conveying semantic connotations such as 'animates', 'inanimates', 'augmentatives', 'diminutives', 'abstracts', 'infinitives', 'place', etc, is indisputable. But it must also be noted that the bulk of exceptions comprises the contextual elements, occurring usually (and this is true of both the Bantu and the Kordofanian) systems which are under study here) as:

1) 'personal relationship' terms and other 'specialized' references to humans;
2) names of individual species of animals, some vegetation, and their products;
3) 'derivatives' and loanwords, especially those relating to (a) and sometimes (b).

The situation involving the contextual element is, however, much more complex. One needs to analyze them further to discover why, for example, their concordial treatment is not uniform, so as to be fully in line with the items with which they are semantically conceived as equivalent. Scholars have, for example, been wondering why items designated as augmentatives or diminutives remain fully in these classes irrespective of whether they refer to human beings or not; or why personal relationship terms which, although having forms differing from those of humans, receive all but a possessive (in Bantu, at least) concordial treatment similar to that of human
Animates, or even why some deverbalites referring to humans are not derived by the use of animate class affixes as is done for other
forms conveying similar connotations.

Commenting on the situation involving the augmentatives (also applicable to diminutives) Whiteley (1967) simply remarked that
"the quality of the augmentatives override the quality of human
animateness" (op. cit., 163). This 'overriding' of the augmenta-
tive and diminutive connotations can be illustrated by the
Kiswahili example m-loto 'child' (class 1) which has an augmented
form m-loto (belonging to class 2) and a diminutive form m-loto
(belonging to class 2). All these forms remain in their respective
classes for all aspects, and although they all represent the basic
concept "child", the existence of different aspectual forms implies
that they are not intended to be conceived as semantically equivalent;
they are used in contexts which differentiate one concept overriding
the basic concept. In Hebrew, too, examples of this sort are
noticed; some animals in Hebrew are classified on the basis of
concepts such as those involving body shapes (e.g. q-an 'giraffe'
for its 'long' body parts, etc.) or attitudes towards them (e.g.
q-in'dog', and most furred animals; respected due to their relationship
with the Hebrews). Those conceptual connotations override the
basic concept of animateness.

The preceding examples appear to represent but one aspect
of the generation of nominals in noun-class languages. Here, the
idea conveyed by the derivative and generative affix outweighs all
other semantic connotations applicable to or possible for the items
concerned. There are, however, other derivational (or generative)
procedures in noun-class languages in which the ideas conveyed by
the derivative elements do not override the basic concepts under-
lying the items they are intended to derive; in these latter situations
the elements involved are those behind the generation of the contextual references, such as the names of individual species of animals and a substantial number of 'derivatives.' In Kiswahti, for example, most names of animal species belong morphologically to classes 9/10. Polonsky (1967) notes the essential function of the prefix in-(of class 9) to be 'to define an object or being by its most characteristic feature' (op. cit., 101). This is also true, to a greater extent, of animal species in Hebrew such as those mentioned above, with the characteristics of prominent body features playing a major role. Kiswahti also uses the wi-prefix in deriving implements or objects 'directly connected with the processes expressed by verbs' (ibid., 100) although the items derived by each of these elements are, in the final analysis, visualized differently as 'implements', 'objects', or 'beings.' With such differential realizations, these items demand appropriate semantic treatments as implements or beings although they retain derivative elements similar to their implied connotations. It is concord which specifies the semantic properties of the derived items, and explains why, for example, Kiswahti names for animals such as gamba 'cow', nyali 'buffalo', and abua 'dog', all receive animate treatments, although morphologically they belong to classes 9/10. It also explains why beings such as ni-ongogo 'leader', 'guide' (e. ongogo 'lead'), ni-ngogo 'barber' (Luyia 'shave'), and wi-siivi 'leaf' (e. siivi 'step up'), - are morphologically belonging to classes 7/6 - receive human treatment while their implement counterparts such as wi-si-ka 'cork' (e. si-ka) and

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25 - This case work can also be used to refer to 'thing' guiding a person. The personal connotation, however, has an alternative form ni-ongogo (class 7) which also has a 'thing' counterpart in-ongogo (class 7).

26 - Concerning the 'derivatives,' it should be noted that the suffixes -ing- with such prefix elements also have a role in distinguishing, for example, implements from beings. This appears to be the case with the suffixes -ing and -o in the above examples.
The situation involving the personal relationship terms — usually belonging morphologically to classes 5/6 and 7/8 in Bantu — which partially adopt human concordial treatments seems to point to the possibility that their basic human conception may have been originally (as in the previous cases) embedded by the semantic connotations behind their generative forms, but that a change of attitude may have begun to develop towards the items concerned over time. The same appears to be true of the only suffix class in Kikuyu (suffix -st, which also refers to personal relationships).

The preceding discussion has shown that the affix shapes of nouns are not without semantic importance. Many of these affix forms convey some specific semantic connotation which remains valid even when the items concerned are provided with semantic treatments that are exceptional to the classes to which they belong morphologically. It can therefore be said that the form/meaning correspondence of non-nouns in noun-class systems is a reality which is relatively firmly established for both the main and the contextual forms. The exceptions — which appear only when some basic conceptions (usually animateness) have to override the contextual ideas originally implied by the forms of the non-nouns — do not themselves seem to distort the underlying form/meaning correspondence in any way. Instead, they make some adjustments which have to be made over the semantic conceptions of the derived items, a process which is by itself both logical and systematic.
1.3. Noun-classes and Loanwords

Numerous views have been expressed about the allocation of loanwords to classes. Richardson (1967) states:

"... it would seem that the class affiliation of borrowing depends not only on linguistic and cultural characteristics of the language area but also on the total linguistic experience - traditional or otherwise - of each speaker of the language." (p. 514, 1967).

This statement needs to be elaborated so as to determine the procedures for allocating loanwords to classes concerning the linguistic characteristics of not only the recipient language but also of the source language, the important procedures are:

1) the type of the class system: whether a prefix or suffix system, or both, and

2) the shapes of individual prefixes or suffixes in such systems.

The allocation of loanwords to classes in some cases to be morphologically determined, and the role of semantic considerations seems to be confined to one particular noun-class situation. While the morphological criterion dominantly applies in the allocation of loanwords to classes in both the prefix and suffix systems, the restricted role of the semantic criterion seems to be only partially effective in the latter system. This can be illustrated by looking at specific examples from each of these types of class systems.
Bantu languages - all of which have prefix systems - show that what matters most in the allocation of a loanword is the nature of the initial syllable of that loanword. If such a form happens to be morphologically similar to any of the class prefix forms in a particular system, the form usually belongs to the class, in which its initial syllable will be created as a prefix. If, on the other hand, such an initial form shows no similarity to any of the class prefix forms in the system, the (loan-) word involved will be allocated to one of those classes which have zero as their allomorph. In Bantu, these have been established as classes 5, 9 and 10, illustrated by the following Kikuyu examples:

(a) Kikuyu's class 3 (prefix ma-) has:

- *mabanda* 'examination' (L. Arabic / mabinda/);
- *marugi* 'ditch', 'canal' (L. Arab. / maruq/);
- *mashubora* 'salary' (L. Arab. / masha'rub/);

(b) Class 5, (prefix na-) -amount and #= allomorph has:

- *nachtu* 'binding contract' (L. Arab. / Nicar/);
- *japuo* 'Japanese' (L. / japou/);
- *jarumari* 'a German' (L. / jarrumari/);
- *kati* 'a cupboard' (L. English / cupboard/).

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27 These forms are in use although they can alternatively take the m-/-ma- prefixes of classes 1 and 2. In this class, plurals are formed by the ma- prefix before the singular form, their presence signifying the relevance of the initial form in allocating loanwords.
c) **Class 6 (prefix **ma-**):**
   - *mabari* 'money' (**Ar. / mab/ba/**)
   - *maixa* 'life' (**Ar. / maixab/**)

d) **Class 7 (prefix **ki-**/**ah-**):**
   - *kitabu* 'book' (**Ar. / kita/bu/**)
   - *chetu* 'note' (**Hindi / chit/**)

e) **Class 9 (prefix **ar-**):**
   - *kalma* 'pencil' (**Ar. / qalam/**)
   - *bekhish* 'tip' (**Ar. / bekhi/s/**)
   - *lugga* 'language' (**Ar. / luwag/**)
   - *wak* 'week' (**Engl. / weik/**)
   - *epeplani* 'aeroplane' (**Engl. / aeroplan/**)

f) **Class 10 (prefix **un-**; **w-**; allomorph):**
   - *wakati* 'time' (**Ar. / waqati/**)
   - *umriage* (**Ar. / umriage/**)

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28- There are, however, many other lemmas with initial **a** which receive n- class (§10) treatment such as *naximli* 'new' (**Ar. / naximli/**), *nali* 'property' (**Ar. / nari/**), *naxfe* 'written article' (**Ar. / naxfe/**), and *masha* 'machine' (**Engl. / masha/**). A treatment which allows the number (singular/plural) distinction for these words.

29- What seems to matter about *kalma* 'pencil' (class **n-**; **/a/**) and *kabati* 'cupboard' (class **ka-**; **/a/**) is the *zero* prefix they are provided. Each one then settles into one of the classes with zero allomorph without their original **a** initial playing any role.
The allocation of these examples has been morphologically determined. Although some of the loanwords happen to bear semantic connotations similar to those items belonging to classes in which they are allocated this is viewed here only as a coincidence. This view disputes the inclusion of Arabic loanwords in the Kikuyu classes which "best fit their semantic content" (Polócié, op. cit., 17). The example which Polócié uses to justify this position is itself a Kikuyu creation from a borrowed term: even so it does not seem to deserve the naturalised status which is usually accorded to certain loanwords in the suffix system (discussed below) on the basis of their meaning.

The suffix systems on the other hand, are also seen to utilise the morphological similarities between their suffix forms and the final forms of the borrowed nouns in allocating these to classes. Amott (1967) records the following examples of this in Kikuyu:

a) class 1a: 
\begin{itemize}
\item givu 'beer',
\item jijia 'pocket',
\item bullia 'excuse, etc.'
\end{itemize}

b) class 1b: 
\begin{itemize}
\item jangal 'cattle tax (giver of cattle tax)' (Amott, op. cit., 56).
\end{itemize}

Besides the morphological criterion, the process which Amott (1967) terms "naturalisation" also functions in determining the classes of the borrowed nouns in the suffix system. Amott notes that in Kikuyu (a language with a suffix system) and great many

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Polócié uses the word stofa (rose-apple tree) from Arabic /tste/i as the only example to support his view. However, the retention of the original borrowing stofa in Kikuyu, as a class 9 item referring to the fruit, seems to depict stofa only as an 'automatised' reference to the tree of the borrowed fruit name.
borrowed words are naturalized by means of a class suffix", adding, "in such a case they take the same class as a Ful word of similar meaning" (ibid., 55). Here it is the semantic connotation of the borrowed word which is taken as basic for its allocation, leaving the suffix form to be applied only as an additional feature to complete the morphological appearance of the loanword. This is seen to be the only situation in which the semantic criterion can be said to apply in the allocation of loanwords. Ful examples are:

<table>
<thead>
<tr>
<th>Class</th>
<th>Fula Form</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>'O</td>
<td>akallari-jo</td>
<td>'a judge' (person)</td>
</tr>
<tr>
<td>NOE</td>
<td>keeomu-ru</td>
<td>'orange', 'lemon' (fruit)</td>
</tr>
<tr>
<td>NCMA</td>
<td>tekon-wal</td>
<td>'table' (object made from wood)</td>
</tr>
<tr>
<td>K</td>
<td>diurri-hi</td>
<td>'tome tree' (tree) (ibid.)</td>
</tr>
</tbody>
</table>

Arnott also shows Fula to have loanwords which retain their original form but are entered into what he calls nearer class or class 11N. And this class itself known to equate a zero or to possess a zero allomorph, such allocations could have been considered to be morphologically determined. Arnott, however, provides no clue to such an explanation.

The other category of class-system seen to be worth mentioning here is that system which utilizes both prefixes and suffixes. Examples of languages known to possess such a system are Tiv and Wolof. Arnott sees Tiv to take loan words in the same form as in the source language and places them in class I (3NV) no matter what the meaning" (ibid., 56), while Kalama (1913:206) notes
this Tiv class to have a zero affix. Arnold also shows a few exceptions to this class, which have been allocated on the basis of the morphological similarities between their initial forms and certain class prefixes. Seihan, which also has a zero for its class 1 (gy/-gy-), behaves like Tiv in all aspects.

Certain inconsistencies have been noted by both Richardson (1967) and Whiteley (1967) about the ways in which individual speakers whose they interviewed handled borrowed items. Such inconsistencies are mainly of two types:

a) a newly-encountered word is moved around from one class to another before it is finally settled into a certain class;

b) in words which have a zero as Whiteley notes, "there is a difference of opinion as to which of the two classes is appropriate" (op. cit., 170);

As we have seen above, Richardson attributes the first type of inconsistency to the total linguistic experience of each speaker of the language. It is, however, suggested in this study that the main factor behind the uncertainty of speakers is the linguistic structure of the source language. When the source language lacks morphological patterns which are comparatively close to those of

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31- The English language is representative of languages in this category. It is on these grounds that Green, S.W. Bloomfield suggested that Kiwahili should only borrow from Arabic, which as far as the initial forms of the sounds are concerned, has more sounds showing close similarity to Kiwahili than does English.
the recipient language, the step of allocating its loanwords is usually preceded by some reflections in the speaker's mind about how they might be related to the native language. But there is a difference among speakers in the speed with which they sort out the technicalities involved, and it is perhaps this difference which constitutes what Richardson terms the "total linguistic experience" of each speaker.

The second type of inconsistency involves, instead, words whose relevant morphological characteristics have been determined. None of these classes deserves to be preferred. The problem here consists of deciding which one of the morphologically similar variants of the two different classes such words might belong to when morphologically such nouns eventually settle permanently 32 in either one of these classes. Finally, the situation involved here seems to reinforce the position which projects morphology as the most important criterion in the allocation of words to classes.

32 Wilson (1970) for example, gives his Klomkili renderer the following instructions:

"Remember that many nouns are not kept rigidly in either the gi-/go- or gi' nouns and may easily be placed in either class as considered appropriate." (pp. 258-259).

Instead of appropriateness, what has been observed is that the frequent and formal usage of such words in speech and writing usually demand their usage to maintain a certain regular pattern; this usually results in any of these nouns finding themselves restricted to either one of these classes."
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# APPENDIX A

*Afro-*Bantu (PB) CLASS SYSTEM

(after Wermers Wa,E. 1973:155)

<table>
<thead>
<tr>
<th>Class</th>
<th>PB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>mo-</td>
</tr>
<tr>
<td>1c</td>
<td>x</td>
</tr>
<tr>
<td>2</td>
<td>wa-</td>
</tr>
<tr>
<td>3</td>
<td>x</td>
</tr>
<tr>
<td>5</td>
<td>lo-</td>
</tr>
<tr>
<td>6</td>
<td>ma-</td>
</tr>
<tr>
<td>6a</td>
<td>ma-</td>
</tr>
<tr>
<td>7</td>
<td>ce-</td>
</tr>
<tr>
<td>8</td>
<td>n</td>
</tr>
<tr>
<td>8x</td>
<td>ti-</td>
</tr>
<tr>
<td>9</td>
<td>mo-</td>
</tr>
</tbody>
</table>
| 10    | ni-ns | (ni-nso 'la Reinhor')
| 11    | lo- |
| 12    | ka- |
| 13    | tc- |
| 14    | tc- |
| 15    | ko- |
\begin{tabular}{ll}
25 & \text{\textit{pi}-} \\
27 & \text{\textit{ko}-} \\
28 & \text{\textit{mo}-} \\
29 & \text{\textit{pi}-} \\
20 & \text{go} \\
21 & \text{gi} \\
22 & \text{ga} \\
23 & \text{ge}- \\
\end{tabular}
### APPENDIX B

#### THE NONN-CLAY SYMPTOMS OF THE NONNYALAN LANGUAGE

**CROSES (After Stevenson R.C. 1964:85)**

<table>
<thead>
<tr>
<th>Enati-Name</th>
<th>Zalodi-Name</th>
<th>Lokusa</th>
<th>Tagol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. kw(u), gw(u)-</td>
<td>p-, y-</td>
<td>p-, b-</td>
<td>-</td>
<td>Persons</td>
</tr>
<tr>
<td>2. 1(1)-</td>
<td>a-, y-</td>
<td>b-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. kw(u), gw(u)-</td>
<td>p-, y-</td>
<td>p-, b-</td>
<td></td>
<td>Trees and plants</td>
</tr>
<tr>
<td>4. c-s, d-s</td>
<td>k-</td>
<td>k-</td>
<td></td>
<td>Unit</td>
</tr>
<tr>
<td>5. 1(1)-</td>
<td>a-s, d-s</td>
<td>b-s</td>
<td></td>
<td>Collective</td>
</tr>
<tr>
<td>6. gw(u)-</td>
<td>m-</td>
<td>k-</td>
<td></td>
<td>Tools</td>
</tr>
<tr>
<td>7. k-s, d-</td>
<td>k-</td>
<td>k-</td>
<td></td>
<td>Weapons</td>
</tr>
<tr>
<td>8. j-s, y-</td>
<td>w-s, b-</td>
<td>b-</td>
<td>a-b-</td>
<td>Long Things</td>
</tr>
<tr>
<td>9. j-s, d-</td>
<td>b-</td>
<td>g-, y-</td>
<td>t-</td>
<td></td>
</tr>
<tr>
<td>10. m-s</td>
<td>m-</td>
<td>m-</td>
<td>y-s, m-</td>
<td>Liquids</td>
</tr>
</tbody>
</table>
### APPENDIX C

**HINDI-CLASSES OF NOUNS**

(Revised by St. P. H. London, 1983)

<table>
<thead>
<tr>
<th>No.</th>
<th>Singular</th>
<th>Plural</th>
<th>Unifying idea of Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>gw, jw</td>
<td>1</td>
<td>Personal Descriptive</td>
</tr>
<tr>
<td>2</td>
<td>gw, kw</td>
<td>jom</td>
<td>Trees</td>
</tr>
<tr>
<td>3</td>
<td>gw, kw</td>
<td>jom</td>
<td>Trees</td>
</tr>
<tr>
<td>4</td>
<td>l</td>
<td>qw</td>
<td>Length</td>
</tr>
<tr>
<td>5</td>
<td>d</td>
<td>d</td>
<td></td>
</tr>
<tr>
<td>6a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5m</td>
<td>j, jh(m.)</td>
<td></td>
<td>Mass-liquids, Abstracts</td>
</tr>
<tr>
<td>7</td>
<td>j, k</td>
<td></td>
<td>Sound and deep things, (and flat thin things)</td>
</tr>
<tr>
<td>8</td>
<td>nh</td>
<td>jom</td>
<td>Harmful things</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td>Relationship and occupation</td>
</tr>
</tbody>
</table>

### Notes:

11a. Nouns beginning with vowels unchanged
11b. Initial consonants other than class above
12. Nouns derived from verb stems - abstract

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1. A manuscript supplied by Rev. B. C. Stevenson.