

A COMPARATIVE STUDY OF THE NOUN-CLASS
SYSTEMS OF HEILAN AND KISWAHILI

BY

~~YARED~~ YARED MAGORI KIHORE

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Department of Sudanese and African Languages
Institute of African and Asian Studies

University of Khartoum

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ABSTRACT

This study is intended to provide a detailed analysis of the noun-class systems of Heiban 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 I see the need 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 Heiban and the already widely described Kiswahili noun-classes.

This study will, therefore, be divided into the following three chapters:

CRITICAL

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- HEIBAN AND KISWAHILI

- 1- Phonology,
- 2- Previous views on the noun-classes of Heiban and Kiswahili.

Chapter III- A COMPARATIVE STUDY OF THE NOUN-CLASS SYSTEMS OF HEIBAN AND KISWAHILI:

- 1- The noun-class systems of Heiban and Kiswahili: a general outline.
- 2- Discussion of classes and their components.
- 3- Morphological and Semantic comparison.
- 4- Conclusion.

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ABBREVIATIONS

ALS	AFRICAN LANGUAGE STUDIES
JAL	JOURNAL OF AFRICAN LANGUAGES
ZES	ZEITSCHRIFT FÜR ENGEBORENEN-SPRACHEN
C.N.R.S.	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE
PB	PROTO-BANTU
PBC	PROTO-BINUE-CONGO
Cf.	Compare
ff.	and the following.

CONTENTS

Abstract	i
Acknowledgement	iii
Abbreviations	iv
Introduction	vii

CHAPTER ONE: Heiban and Kiswahili

1.1. <u>Heiban</u>	1
1.1.1. Phonology of Heiban	1
1.1.2. Sounds Characterizing the Heiban Class System	3
1.1.3. A Background Survey of Heiban noun-classes..	4
1.1.4. Affixes, Allomorphs and Variants in Heiban....	5
1.2. <u>Kiswahili</u>	6
1.2.1. Phonology of Kiswahili	6
1.2.2. Sounds Characterizing the Kiswahili Class System	8
1.2.3. Background Survey of Kiswahili noun-classes..	9
1.2.4. Prefixes, Allomorphs and variants in Kiswahili	16

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

2.1. <u>The Noun-class Systems of Heiban and Kiswahili.....</u>	24
2.2. <u>A Class by Class analysis</u>	25
2.2.1. Heiban Classes	25
2.2.2. Kiswahili Classes	37
2.3. <u>Comparison of the two Systems.</u>	55
2.3.1. Morphological Comparison	57
2.3.2. Semantic Comparison	61

2.4. <u>CONCLUSION.</u>	68
<u>POSTSCRIPT</u> <u>Noun-Classes: A Brief ^{Critical} Survey</u>	70 X ✓
References	108
Appendix A: .Proto-Bantu Class System	112
Appendix B: The Noun-Class Systems of the Kerdefanian Language-Groups.....	114
Appendix C Noun-Classes of Heiban by Rev. K.J. Nobbs	115

INTRODUCTION

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-Mande Niger-Congo is closer than any of them to Mande " (op. cit., 17). He added, however, that this relationship had yet to be proven.

From the noun-class systems of these language groupings, Greenberg (op. cit., 150-193) showed correspondences between the Kordofanian classes l-/gw-¹ and the Bantu classes li-/a-, ma-. He further traced the correspondence between the nasals /n/ and /m/ noted in these classes, and found them to occur in (a) the word for ' tongue'; (b) the second and third person singular pronouns; and (c) the suffixes - na and - ma which are respectively used to denote personal relationships in most Kordofanian languages and Niger-Congo languages like Likpe and Akpafu. Other noun-class correspondences were seen to exist between the Kordofanian class gw-/kw- and certain nouns in Niger-Congo languages with /g/ and /k/ initially - - such as Wolof gor ' man'; Luganda kabaka ' king' - - and between (Kordofanian) Katla b- and (Niger-Congo) Bantu bu-, used for deriving abstract nouns.

1- Given as n- by Greenberg, but see explanation in Chapter 2 section 2.

Greenberg's comparative procedure however leaves much to be desired, because its lack of details about the languages involved in the comparison render 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 Heiban (belonging to the Koalib-Moro group of Kordofan) and Kiswahili (belonging to the Bantu sub-group in the Benue-Congo group of Niger-Congo). The morphological and semantic facts that emerge from the analyses of these class-systems are then compared in order ^{to} show the extent of their relationships.

In this thesis, no attempt is made to establish a genetic relationship between Heiban and Kiswahili, 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 adduced reconstructions of noun-class forms. This method serves to indicate the likely outcome 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

HEIBAN AND KISWAHILI

1.1. Heiban

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

Consonants		Labial	Dental	Alveolar	Palatal	Velar
Stops	Voiceless	p	t̪	t	ç	k
	Voiced	b	d̪	d	j	g
Fricative		(f)				
Nasals		m		n	ny	ŋ
Liquids		l		r l	j	
Vowels		<u>Set A</u>		<u>Set B¹</u>		
		Front	Back	Front		Back
High		i	u	ɪ		ʊ
Mid		e	o	ɛ		ɔ
Central		õ			a	
			Low			

- 1- Stevenson who poses a seven-vowel system for the Kordofanian languages considers /ɪ/, /ɛ/, and /u/ in Set B to be allophones of /i/, /e/, and /u/, respectively. But the few word-pairs I have encountered in Heiban do suggest that they are phonemes in this language. The examples are, /ɲin/ 'blood' versus /ɲɪn/ 'dog' (the slight length in the former does not seem to distort the opposition); /ɛla/ 'coming' (noun) versus /ɛlã/ a word used for calling a dog. The /u/ and /ɪ/ also contrast and more examples involving /ɪ/ and /ɛ/ are noted in numerous word-pairs showing the occurrence of vowels of the same set e.g. /ɛllã/ 'descent' versus /ɛllɛ/ 'writing', /ije/ 'drinking' (noun) versus /ɪje/ 'herding' (noun). Although no attempt has been made to establish the vowel harmony rules in this language, there are clear contrasts between such pairs.

Tone

Prosodies: (High, Mid, Low), Vowel Length and Diphthongs.

Stevenson notes that in most Kordofanian languages "dynamic stress accompanied by High or Low tone plays a greater role than syllabic pitch as such ..." (Tucker and Bryan 1956:272). In Heiban, lexical tone appears to be prominent as shown by the following examples.²

<u>gàrò</u>	'vegetable'	(like Arabic <u>ajur</u>),
<u>gàrò</u>	'grunt'	(sound of a pig),
<u>gàrò</u>	'grass',	
<u>dri</u>	'blood vessels' versus <u>dri</u>	'lizard' (species of),
<u>libuq</u>	'pool, pond' versus <u>libuq</u>	'gourd',
<u>gulaq</u>	'seed' versus <u>gulaq</u>	'implement used for planting.'

Rising and falling tones are also noted in long vowel endings.
e.g. lirkò 'knee' versus lirkò: 'a cabbage-like plant whose seeds
only are used.'

2- Tone is marked as follows:-

High	[']
Mid	[-]
Low	[.]

Stevenson (1956/57:27) noted "pure palatal plosives" (/ɕ/ and /tʃ/) to occur in Kordofanian languages, but in Heiban these two sounds tend to vary commonly in elicitation, except in the minimal pairs /ɕ u/ 'intestines' and /tʃu/ 'breasts' - - where they become distinct.

Stevenson also noted voiceless / voiced and plosive/ fricative variations" (e.g. k/g, t/θ) to be common in Kordofanian languages. In Heiban, fricatives are rare: only two examples (/fure/ 'light' and /fure/ 'dust') have been encountered for /f/. Heiban shows some minimal pairs of voiced and voiceless velar sounds such as /gware/ 'clan' and /kware/ 'tree' and /gõl/ 'alone' and /kõl/ 'eye' upon which their distinction can be based.

Also noted to occur in Heiban are geminate sounds such as ll in /ulle/ 'descent', /ulls/ 'writing' (noun) /allo/ 'ascent.'. Only one case which shows a contrast between the geminate and single sound has been encountered: /qarra/ 'retention of anger after quarrel' /qara/ 'gum.'

1.1.2. The sounds characterizing the Heiban class system.

Of the sounds in the preceding inventory, the following characterize the Heiban class affix system: /g/, /k/, /l/, /j/, /ɕ/, /d/, /ny/ and /ŋ/ with /ɕ/ and /tʃ/ as rare variants.

The nasals take a prominent place in the Heiban class system: three class - 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 Heiban classes.

Among the few who have studied the grammar of Heiban is P.A. MacDiarmid who is noted to have " failed to understand noun-classes " (Stevenson 1956/57:98, footnote) in a work for which she was awarded a D. Litt. from the University of Dunedin in New Zealand.

The Reverend K.J. Nobbs of the Sudan United Mission collected numerous vocabulary items of Heiban and published gospel translations and grammatical notes which have been included in a " short authoritative study " produced by Meinhof in his " Das Heiban in Kordofan " (ZES Vol 34, No. 2, 1944/45¹ pp. 94-130). Rev. Nobbs' collection of Heiban 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 Heiban, but his " unifying ideas of classes " (see Appendix C) are inadequately presented and in some cases not indicated for certain classes.³

Concord in Heiban.

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

-
- 3- Rev. Nobbs shows, for example, that the unifying idea for class gw-kv- to be 'personal descriptive', of class gw- , kv- to be 'trees', and no ideas are presented for classes such as l-/qw-, q-/ny-, etc.

Semantic Properties of Heiban noun-classes.

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

1.1.4. Affixes, Allomorphs and Variants in Heiban

<u>Class Affixes</u>		<u>Variants</u>
<u>Singular Classes</u>	a) gw-/kw ⁴ , ø-	-
	b) l-	-
	c) g-/k-	-
	d) q ⁵	-
	e) ŋ-	-
<u>Plural Classes</u>	f) li-	l- (prevocalic)
	g) j-/ɔ, ø-	y (in concord only with the vowel-initial nouns accommodated by ø)
	h) ŋw-	-
	i) d-	-
	j) ny-	-
	k) -ŋa	-

4- The sign (/) is being adopted here to separate prefix forms from their voiceless variants. The latter are apparently fewer in occurrence.

5- This class also accommodates nouns with initial /t/ and /t̥/.

Group class numbers are not used in this Chapter (but they are indicated in the following Chapter) for Heiban and Kiswahili 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 II 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.⁶

~~CHAPTER TWO~~
~~KISWAHILI NOUN CLASSES:~~

2.

1.2. ~~Kiswahili~~

2.1. ~~Background Survey~~

2.1.1

2.1.1. Phonology

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

Consonants	Labial	Dental/ Alveolar	Palatal	Velar
Stops Voiceless	p	t	ɕ	k
Aspirates	p ^h	t ^h	ɕ ^h	k ^h
voiced	b	d	ʃ	g
Fricatives Voiceless		f θ	s	ʃ
Liquids Voiced		ɾ	z	ɣ h
Nasals	m	n	ny	ŋ
Sonants non-nasals	w	r l	j	

- 6- An example is u- class in Kiswahili which has always been listed as PB classes 11 and 14. It is given only one place in this system to indicate its established synchronic position. The unnumbered and unlisted Kordofanian classes in Stevenson's (1964) list, are also accommodated in this manner.

Vowels	Front	Back
High	i	u
Mid	e	o
Low	a	

Prosodies: stress, pitch (in the sense of intonation) and juncture. It is claimed that tone has been lost (Ashton 1944) by all major Kiswahili 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⁽¹⁾

The treatment of voiceless aspirate phonemes and the borrowed phonemes /p/, /t/, and /tʃ/ require some additional comments.

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

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

b) " in contrasts between nouns belonging to the n- class and their augmentatives" ⁽²⁾ (op.cit., 39, 40).

Polomé 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 ~~older~~

7-⁽¹⁾ Tucker and Bryan (1970), for example, tentatively mark tones for Ngazija, a Kiswahili dialect spoken in the Comore Islands.

8-⁽²⁾ For examples see Polomé (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. Polomé'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 Polomé 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.

2.1.2

1.2.2. 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: /a/, /w/, /k/, /v/, /n/, /u/, /j/ and /p/. All are consonants except /u/ - - which

represents a merger of two proto-Bantu (PB) classes 11 (* lu) and 14(* bu) - - and which therefore appear in Kiswahili 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 /i/, /a/ or /u/.

In Kiswahili, (as in Heiban,) the nasals appear to take a prominent position, in the class system. De Wolf (1971:37) lists four nasal prefixes as N₁ (m - of PB⁹⁽³⁾ class 1), N₂ (m - of PB class 2), N₃ (n- of PB class 9) and N₄ (n- of PB class 10). The nasals are, however, also noted to occur in combination with vowels in three other classes, namely PB classes 4 (mi-), 6 (ma-) and 18 (ma-).

The Kiswahili concordial system of affixes itself shows, together with those mentioned above, the phonemes /a/, /i/, /u/ and /s/, of which the last three function in combination with vowels. → /j/

2.1.3

1.2.3. (A Background Survey of) Kiswahili Noun-Classes

Since the 1840's the grammar of Kiswahili has been widely studied, with varying treatments being accorded the nature of nouns and their organization into discrete classes.

As a Bantu language, Kiswahili has been noted to show an inflection "... characterised by the Bantu class prefix system " (Polomé 1967:94) and its noun-class prefixes "... appear to include all that is widespread in Bantu..." (Madan 1921:11). The

9⁽³⁾

P.B. = Proto-Bantu: referring to an outline of the reconstructed class system based on comparison of individual class systems of ~~several~~ Bantu Languages (Welmers 1973:163). The outline is reproduced in Appendix A.

nouns of the "Bantu dialects"^{10 4} have been noted to possess a formative initial syllable or prefix not belonging to the root. Madan 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 Loogman(1965)- that "the precise number of differentiable classes in Swahili (viims) and the order in which they may best be presented are debatable and much debated topics" (op.cit., 17). However, Loogman 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 Wolf notes, the results of such attempts will depend upon the number of elements taken into consideration.

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

⁴ 10- The term used by Madan to refer to Bantu Languages.

concern about the precise number of differentiable 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.*, 33/34). The lists of Kiswahili noun-classes appearing in the works 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 M-/MA-, M-/MI-, KI-/VI-, N-/N- and, in some analyses, JI-/MA-, U-/MA- and U/N-. The single class noun-classes have included KU-, KU-, PA; MU; and in some cases, U- and NA-. 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 Bleek-Neinhof 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 Polomé's (1967) follows this system of presentation.

The table below which 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 their having " typical but by no means completely consistent semantic correlations" (Welmers op. cit. 166), often involving autonomous and non-autonomous living beings, respectively--which project them as the most widely attested classes in languages with class systems. Although wide attestation may also be claimed for other classes, their rank-ordering (if the definition of noun-class as " rank-ordering in the quality of beings holds) (see Postscript section 2) is 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 preoccupation of traditional scholars. Ashton (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 affixes (op.cit., 10). She begins her detailed discussion of noun-classes by explaining that she introduces the KI-/VI- class first "because it so happens that the pronominal concords have the same form as class prefixes" (ibid., 13). Then follow the discussions of the M-/MI-, M-/WA- and JI- and MA- classes, which in her original list are numbered 2, 1 and 4, respectively.

Table 1.1, 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 evidences, as was noted earlier, no difference of opinion over the

precise number of differentiable classes of Swahili, it does however, 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-, MU-, U- and MA-. As a part of the general examination of the whole system, the noun-classes of Kiswahili will be considered in some detail.

Table 1.1. Variant Numbering of the Noun-Classes of Kiswahili.

Noun-Class Prefixes	Numbering System					
	Krapf (1850)	Madan (1921)	Ashton (1944)	Brain (1961)	Loogman (1965)	Polomé (1967)
M/WA	1	1	1	1	1	1/2
M/MI	2	2	2	2	2	3/4
(JI)/MA	4(Ø/MA)	5(-/MA)	4(JI and MA)	5	3	5/6
KI/VI	5	3	3	3	4	7/8
N/N	3	6	5	4	5	9/10
U/(N), MA	6	4(U/NT)	6 (U/N)	6	6(U/N) 7(U/MA)	11/14
KU(Infin- itive)	8	8	7	7	-	15(KU infin.) 17(KU, Place)
MAHALI (KU, PA, MU)	7	7	8	8	8	16 PA 18 MU

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 Krapf (1850) in the following statement:-

"... this classification is recognized by the various forms which put the nouns grammatic monarchy or 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 the Postscript).

Kiswahili is noted to have "two distinct sets of concord"^{11 5} (Madian op. cit., 13) which may be distinguished broadly as:-

-
- (5) 11- Polomé (1967) notes "three kinds" of concord in Kiswahili which he names a) "nominal (with nouns, locatives, and adjectives - including some numerals),
- b) "pronominal (with connective and referential particles, demonstratives, possessives and the interrogatives as well as as-ote -eye and -eyowe), and
- c) "verbal" (op. cit., 94).

Polomé'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, Polomé's first two kinds equate Madian's "sets" 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 PERSON" (De Wolf op. cit., 42).

- (i) " the nasal or noun set, identical (except in [Madan's] class 4 singular (or U class)) with the class prefixes used with all adjectives proper..."
- (ii) " the non-nasal or pronoun set ~~or~~ used in all other cases, i.e. with pronominal adjectives (i.e. demonstratives, possessives, etc), with verbs, with relative -o, with variable preposition na and as one form of the copula"¹² (ibid., 13, 14).

Madan notes these two sets of concord to 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." Madan 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 far more widely and deeply into the structure [of Kiswahili] than the the former [the noun set]" (ibid.). Concordially, therefore, Kiswahili X differs from Heiban which has only one set.

The Semantic Properties of Kiswahili noun-classes.

Polomé (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., 96). *However, such of the shifts as seem to be noted are the result of semantic change.*

- 6 (12) For his part, Welmers (1973) refers to set (i) as " primary" and to set (ii) as " referential " or secondary.

Not only the U. class. The assumption (Polomé 1967) seems to stem from the presupposition that at "the beginning of Bantu language" the world was clearly cut into pieces, these divisions were represented by the morphemes which had to be

Before Polomé, Ashton (1944) had observed that each class in Kiswahili is associated with one or more underlying ideas. Ashton, cautioned 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 (op. cit., 10,11). These observations are comparable to those on the semantic properties of Heiben classes (See 1.1.3.).

such general view on the semantic basis of class is disputed by early scholars as disputed in the footnote
 1.2.4. Prefixes, Allomorphs and Variants in Kiswahili

	<u>Class Prefixes</u>	<u>Variants</u>
<u>Singular Classes:</u>	A) M-	MW-, MU- (prevocalic)
	B) M-	MW-, MU- (prevocalic)
	C) JI-, ϕ -	J- (prevocalic)
	D) KI-	CH- (prevocalic but see notes)
	E) E-, ϕ -	several (which see notes)
	F) U-	W- (prevocalic)
	G) KU-	KW- (prevocalic)
	H) PA-	-
	I) KU-	KW- (prevocalic)
	J) MU-	-
<u>Plural Classes</u>	K) WA-	-
	L) MI-	-
	M) MA-	-
	N) VI-	VI- (prevocalic but see notes)
	O) N-, ϕ -	several (as E above).

The above table shows that, compared with Heiban, Kiswahili has more allomorphic variants.

In a table of Kiswahili prefixes and their allomorphs drawn up by DeWolf (1971:37), it is indicated that out of the twelve classes listed for this language ten have allomorphic variants. There are, however, allomorphic variants marked for certain classes in De Wolf's list -- such as those listed for classes m -, n- ji- , ma - , ki- , vi- and u- - - about which more information is needed.

2.1.4.1

1.2.4.1. Allomorphs of nasal prefixes.

De Wolf poses the mw-form as the allomorph for m- prefixes. The prefix m- (in the two classes in which it occurs) is itself known to appear as / mu-/ in both the preconsonantal and prevocalic positions in most Bantu languages, but in Kiswahili it occurs as a syllable by itself before consonants other than /j/ and /w/ (Polomé, 1967:67), e.g. m-ganga 'medicine man', m-zee 'old man', m-chawi 'witch doctor', m-mea ' plant'. In prevocalic positions, however, the m- prefix is usually accompanied by /u/, which is retained before stems with initial back vowels /u/ and

/p/, but labialized into /w/ before other vowels¹⁷ e.g. mu-umba 'creator', mu-uguzi 'nurse', mu-ungano 'union' and mu-ana 'child', mw-inbaji 'singer', mw-enge 'torch'.

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

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

However, it has also been recorded that mw- is a form which originally had /u/ instead of /w/ and that it assumes this form only in words whose forms have been affected by contraction. Contraction is itself defined by Duke as "the process of shortening a word ... by reduction in number of syllables" (as quoted by Ashton 1944: 20b). This process is known to apply frequently to stems with initial /a/, /e/ and /i/ and is recorded to involve cases where the prefixes contain vowel /u/ or /i/. The effectiveness of this process before stems with initial /u/ or /o/ is nonetheless questionable, as it cannot be realized with ease on an articulatory basis. The view here, therefore, is that Whiteley's examples -- mu-umba 'creator' but mw-uma 'seller', mw-ungano 'confession' (indicating the occurrence of both mu- and mw- allomorphs before stems with initial /u/)-- certainly required reasons beyond mere free variation.

mune seems to be the only exception in class 1. In class 3 (also m-), however, there are several cases which can be considered exceptional due to the absence of mw- before their stems which have initial vowels. Involved in this are the words m-oyo 'heart', m-oto 'fire', m-oshi 'smoke', and m-ungu 'god'.

Ashton considers the forms m-oyo, moto, and moshi to indicate an elision of /w/ (which she thought accompanied m-) before o. The elision of /u/ [and not /w/] from the prefix m- in the environment of a following back vowel is also seen to account for these cases. Mune and munu (known to occur as mu-lune and mu-lungu¹⁴, respectively in certain Bantu languages), on the other hand, could have their exceptionality attributed to morphological changes in Kiswahili. Alternatively, however, an elision of /u/ accompanying the prefix m- (in instances where its retention is not totally obligatory) remains another possibility. In fact Krapf (1882) gives two forms -- mungu and munu -- for the word mungu (and no other form for mune), which indicates the acceptability of both forms.

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

mungu is also recorded in Kikongo, one of the old Kiswahili dialects (see Mkelie, 1976:73). The loss of /l/ in intervocalic position is said to be common in Kiswahili (Mkelie, 1967:73).

/ɸ/ only before voiceless stops, fricatives, nasals, trills and bilabial semi-vowels¹⁵ (op. cit., 162). It is only in prevocalic positions that /n/ is palatalized in all cases but one¹⁶, resulting in the phoneme /ny/¹⁷ before the stems concerned.

2.4.2

1.2.4.2.

For the other classes previously listed for further investigation - - ji-, ma-, ki-, vi- and u- - - De Wolf notes the respective allomorphs to be j-, m-, ch-, vy-, and w~aw-

-
- 15- Polomé (1967:67-70) shows more sound forms resulting from the combination of /n/ with other sounds. These include the nasal compounds.
 - 16- This one exceptional case is the word nj-ema 'good' which should have appeared as * ny-ema with nouns of the n- class; Polomé says this exception " cannot be accounted for" (op.cit., 70).
 - 17- Polomé (1967), in challenging Meinhof's reconstruction of class 9 as (*ne) says: " the main reason for positing {ne} instead of {n} is the palatalization occurring before the roots with vowels like /ama/ e.g. in Swahili nyama 'meat'; if proto-Bantu had a palatal nasal phoneme the /ny/ in nyama could be part of this phoneme and reflect the same morphophonemic change of {n} before vowels, as occurs in Swahili" (foot note 163).

De Wolf rightly lists j- as an allomorph of prefix ji-. However, this allomorph occurs in this class only before a few stems (see Chap. 2 section 2) which have initial vowels. The prefix ji- is itself known to occur only before monosyllabic stems having initial consonants: ji- does not appear before polysyllabic stems, its allomorph being marked as Zero.

De Wolf's presentation of m as an allomorph of the ma- prefix is questionable. His decision seems to have been influenced by the occurrence of words like meno 'teeth' (ma + ino) and meko 'hearths' (ma + iko) showing coalescence of /a/ and /i/ into /e/. Examples showing a similar coalescence with words of the ma class were also observed in Yao by Whiteley (1961:2) who posited me as an allomorph of ma- 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 m nor me¹⁸ can satisfactorily represent the allomorphic concept as it is known to apply in all other classes.¹⁸

As far as the ki- and vi- prefixes are concerned, it is necessary to point out that in Kiswahili, their respective allomorphs ch- and vy- occur only before vowels other than front high -

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

ri-ithori/ma-ithori 'tear'.

ri-itho/ma-itho 'eye'.

/i/, in which case the prefix form is retained - - e.g. in ki-ini/vi--ini 'core', 'kernel' as opposed to ch-ungu / vy-ungu '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-oo / vi-oo 'glass' versus ch-oo / vy-oo 'latrine';
ki-ambo / vi-ambo 'settlement' versus ch-ambo / vy-ambo 'bait';
ki-elezo / vi-elezo 'explanation' versus ch-elezo / vy-elezo 'buoy', etc.

Of these, Polomé says: " it seems preferable to interpret the forms with ki- as reflexes of [ki] before a / - / juncture " (op. cit., 182).

Finally, the allomorph of the u- prefix is presented by De Wolf as w- which alternates with uw-. Both of these forms are known to occur in Kiswahili nouns, but although the occurrence of w as an allomorph of u- is indeed common, there is only one word in Kiswahili for which the form uw- is recorded: the word

uw-anda/ ny-anda¹⁹ 'open space'. In all other cases where the form uw is marked, the u- component retains its prefix status while w is an initial consonant of the stems concerned, eg. :

u-wingu 'cloudiness', 'darkness' 'gloom' (\angle wingu/ma-wingu 'cloud' or 'what resembles cloud');

u-wezo 'ability' (\angle weza 'be able');

u-wambo²⁰ 'act (manner) of stretching over' (\angle wamba ' spread over'), etc.

19- A controversy recently developed involving the acceptability of the word ki-wanda (plural vi-wanda) now used to mean 'factory.' This word, if accepted to exist, could provide us with the stem-wanda. Had there been a relationship between this stem and either uwanda (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-wanja (plural wanja) defined as 'courtyard' (which is also an open space). This word is semantically related to the word uwanda. But uwanja can only be realized in the Southern dialects, the Northern dialects regularly showing /nd/ where the Southern ones have /nj/. (The cognate status of these words is confirmed by Slavikova and Bryan (1973) - - a comparative study of the two dialects which shows that kivanda (7/8 in Kimvita), Kivanja(7/8) Kiunguja), uwanda (11/6 Kimvita) and uwanja (11/10 Kiunguja) to be cognates.) This rules out the existence of uw- indicated by De Wolf.

20- This word has been thought to be singular, pairing with mambo ' pegs 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 NOUN-CLASS SYSTEMS OF

HEIBAN AND KISWAHILI

2.1. The Noun-Class Systems of Heiban and Klawehill.

2.1.1. Heiban

2.1.2. Klawehill

Class Affixes		Proto-Bantu	Concord	
Singular Classes		Singular Classes	Numbering	Set A
a) gw-/kw-, ø	(1, 3)	A) m-	(1)	m-
b) l-	(5)	B) n-	(3)	n-
c) g- / k-	(7)	C) ji-, ø	(5)	ji-, ø
d) q-	(9)	D) ki-	(7)	ki-
e) ŋ-	(listed but not numbered)	E) n-	(9)	n-
		F) u-	(11, 14)	u-
		G) ku-	(15)	ku-
		H) pa-*	(16)	pa-
		I) ku-	(17)	ku-
		J) mu-	(18)	mu-
Plural Classes		Plural Classes		
f) li-	(2)	K) wa-	(2)	wa-
g) j-/ø-, ø	(4, 8)	L) mi-	(4)	mi-
h) ŋw-	(6)	M) na-	(6)	na-
i) d-	(10)			
j) ny-	(not listed)			
k) -qa	(not listed)			

* It should be noted that Stevenson's (1956/57) version of Kordofanian classes contains all

2.2. A CLASS BY CLASS ANALYSIS

2.2.1. HEIBAN CLASSES:

2.2.1.1. Class prefix gw-, kw-

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 Bantu as comparable in his statement: Kordofanian class 3 is "reminiscent of Bantu mu-/mi- class in having the same singular prefix as the 'Persons Class' (class 1)" (1956:123). However, the situation involving prefix gw-/kw- in Kordofanian languages appears to differ somewhat from that involving mu-prefixes in Bantu. The Kordofanian prefix gw-, kw- is known to operate, as do all other class prefixes in the system, only one concord form similar to it. The two Bantu mu-classes, on the other hand, do operate different concord each except in languages with a 'double set' of concord in which a similarity is noticed in one of the set. It is therefore noted here that without the morphological difference, such as that occurring in Bantu languages, there do not seem to be any grounds for treating Kordofanian "classes 1 and 3" as distinct and therefore comparable to Bantu.

In this study the Heiban class - prefix gw-/kw- 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) (ibid). Heiban may, therefore, be considered as one of these languages.

Class gw-, kw- in Heiban contains all names and references to persons except the 'personal relationship' terms¹ and terms which denote persons with physical abnormalities², all names of animals, trees, and insects except those which are named according to their 'prominent' characteristic features³ and those that are traditionally given a special treatment in the Heiban society.⁴ This class also contains some parts of the body and some names of diseases.

Examples of this class are:⁵

- a) Human beings: kw-iji 'person', kw-oma 'man',
kw-eleny 'chief', gw-uma 'medicine man/woman',
gw-onor 'warrior', kw-a(i) 'woman', gw-uram 'thief',
 etc. These pair with li- class in plural.
- b) Animals: gw-ida 'animal' (generic), kw-aral 'gazelle',
gw-aiyan 'antelope', kw-uruel 'baboon',
kw-ira 'leopard', kw-iriny 'bushhog', gw-ula
 'wild cat', etc. These also pair with li- in plural.

-
- 1- For these see plural class suffix - na.
- 2- These belong to class g- : k-.
- 3- These also belong / class g- : k- and number of other classes^a
- 4- These belong to class n-.
- 5- In this class items in categories (a), (b) and (d) compare semantically with items in n- class (2.2.2.1) in Kiswahili. Morphologically, however, the items in (b) and (d) compare with items in class n- (2.2.2.5) in Kiswahili. Some items in categories (c) and (e) compare with items in m- class (2.2.2.2) in Kiswahili.

- c) Plants: kw-are 'tree' (generic), kw-ukulu 'pumpkin',
gw-ono 'sahab tree', kw-eredeny 'kash-kash tree',
gw-uda 'wild fig', etc. These pair with j- class in plural.
- d) Insects and reptiles: gw-odo 'worm', 'caterpillar', gw-ido
'frog', gw-ai 'bee', kw-auwa 'mosquito',
gw-udulum 'spider'; gw-urul 'large lizard',
kw-em 'python', etc. In plural these pair with
li- class.
- e) Parts of the body and diseases:
gw-iriny 'waist', gw-urol 'bladder', gw-idom
'back of throat'; gw-adili 'cold in the head'
gw-otimile 'syphilis', etc. These pair with
li- class in plural.

2.2.1.2. Class prefix l-

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. Also contained in this class are some parts of the body that occur in sets or pairs. 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-öl 'eye', g-öni 'ear', g-inai 'tooth', etc), 'length' (e.g. g-öl 'arm', g-imani

' thigh', etc.) All items in this class pair with qw- class in plural.

Examples of this class are:⁶

- a) Objects generally: l-udum 'star', l-ony 'egg',
l-iboran 'grain stalk', l-on 'durra grain',
l-ulan 'seed', l-en 'village', l-ura 'cane',
' stick', l-un 'porcupine quill', etc;
- b) Animals, birds, and insects which stay or move in groups:
l-ima 'lion', l-imu 'hedgehog',
l-uthiny 'lizard', l-ugiru 'crow', l-anwar
'partridge', l-ibirthan 'vulture', l-athagaruiny
' mosquito and other water larvae', l-idinamini
' soldier ant', l-obalon ' tick', etc.
- c) Parts of the body occurring in sets or pairs:
l-ora ' leg', l-inyu ' mouth', lip', l-inena 'cheek'
l-urle 'testis', l-amun ' finger', l-aul 'nose, nostril'
l-ibidire ' ankle', etc.

2.2.1.3. Class prefix k-, g-

This is a singular class-marker.

Stevenson sees this class in Kordofan^{ian} to contain " a large proportion of names of objects, utensils, tools, weapons, etc, and in Koalib- Moró, nouns indicative of personal abnormality or bodily defect

6- A few items in categories (a) and (c) in this class compare with items in ji- class (2.2.2.3) in Kiswahili.

like the Bantu ki-/vi- class " (op.cit., 125). 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 Heiban 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?

a) parts of the (human or animal) body which ' protrude ' and those that are ' hollow ', and hollow objects such as k-ari ' belly ' g-ile ' shoulder ' k-ibo ' wing ', g-öni ' ear ' (also leaf), g-irel ' cheek ', g-una ' skull ', k-amun ' finger nail ' ; etc, and k-ima ' cave ', g-uri ' crack ', k-ide ' pot ', etc, pairing with ny- prefix; and k-arbeny ' arapit ', k-abina ' eye-lid ', g-u ' breast ', g-ulo ' throat ', k-uruel ' feather ', g-irile ' hoof ', g-ijogina ' mane ', k-öi ' eye ', etc, pairing with j- prefix in plural.

b) names of animals, birds, and plants with some protruding body parts such as:

g-ugur ' a pig ', k-amarainy ' hyena ', k-amila ' camel ', k-ajan ' civet cat ', k-imila ' tortoise ' k-un ' porcupine ', etc, g-ibudi ' bat ', k-agaro ' domestic fowl ', k-irjir ' ringdove ', k-(a)bran ' kite ', g-nyu ' owl ', etc; and k-aro ' grass ', g-iliny ' mushroom ', k-ukul ' long gourd '. These pair with j- while the other names of

-
- 7- A number of items in categories (c) and (d) in this class compare with items in ki- class (2.2.2.4) in Kiswahili.
- 8- This is also classified according to a different concept and by a different name; see class 1- (2.2.1.2).

of plants such as g-ado 'edible gourd', g-ide 'doleib palm' pair with ny- prefix in plural.

c) Names of tools, weapons, and articles with protruding features such as: g-idaga 'iron hoe', k-aude 'shoe' 'sandal' (usually wooden), g-unjur 'cap of cartridge' g-ola 'snare for birds', g-ibirlan 'razor blade', etc. These pair with j- prefix in plural.

d) Names of persons with abnormalities or defects involving protruding parts of the body or simply protuberant abnormalities e.g. g-urinar 'humpback', g-irila 'deaf' (involving ears), k-abluiny 'one-eyed person', k-arber 'aged person' (bent), g-madel 'sodomite', etc. These pair with j- in plural.

2.2.1.4. Class prefix d-

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

In Heiban this class is seen to contain 'long' things occurring as:⁹

a) Parts of the human or animal body which are conceived as long (in relation to other parts) such as: d-di 'hand', 'arm', d-imani 'thing', d-uro 'back' (back bone), d-ulun 'elbow', d-idin 'lower jaw', d-irra 'canine tooth', d-irila 'tongue', d-ugor 'heart', d-il 'horn', etc.

9- In this class, a few items in categories (a) and (b) compare with items in Kiswahili's u- class (2.2.2.6).

b) Long objects such as:

q-ai 'track' 'road', q-irgaka 'crack in the earth', q-imareny 'crack in the rock', q-ibilereny 'large anthill', q-ar 'cord or string', q-imetiny 'brass wire ornaments', q-eel 'pit' (for grave or well), q-aure 'axe-handle', q-uwe 'fence', q-lrainy 'boundary', etc;

c) Animals and insects which are either tall/long themselves or possess some long body parts, such as q-ugum 'a genet cat', q-ugwuni 'ant bear', q-upan 'anteater', q-upur 'elephant', q-ul 'giraffe', q-ri 'large lizard', q-uma 'snake', etc; and q-ulan 'small species of ant', q-irubiny 'guinea worm', q-umu 'scorpion', q-ama 'grass-hopper', etc.

2.2.1.5. Class prefix q-

This prefix occurs in this form in all environments.¹⁰ It is distinct from plural class prefix qw- (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 q- and qw-. 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 qw- (a plural class containing items occurring in 'sets' and in large groups) and

10- This includes the words with q- preceding the roots with initial back vowels /o/ and /u/ in which q- has always been recorded or heard as qw-. This is one of the facts which has led to the confusion over class q- and qw-. A closer examination of q- in these environments reveals the retention of the value of this sound.

Bantu class na- by including in the former the items designated 'mass liquids' and 'abstract'. However, the situation involving these items in the Kordofanian languages is quite different from that of Bantu: 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 1956/57 study of the Kordofanian noun-classes, Stevenson showed the class prefix ŋ- as representing four classes (15, 17, 20 and 21) of the total 26 classes. In his 1964 presentation of the Kordofanian classes in which he showed a total of eleven classes, Stevenson listed but did not number the ŋ- class.

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

- a) (class 15) " names of many domestic or small animals, the word ' boy' and ' girl' and in some languages (e.g. Tagoi) also diminutives;
- b) (class 17) " augmentative forms;
- c) (class 20) " liquids and abstract nouns" (op. cit. 137, 14)
In the 1964 version, class ŋ- was shown only to contain 'liquids ' (1964: 82).

Heiban class n- can be said to contain all items which are traditionally treated with respect or fear.¹¹ These occur as:¹²

- a) Domestic animals which are in most cases respected due to their relationship to the Heibanese, such as:
n-in 'dog', n-apoi 'cat', n-imiro 'cow', n-idri 'bull',
n-ö 'he-goat', n-ur 'goat', n-abagala 'mule', etc;
- b) Other animals and birds which are probably respected or feared for their shapes or actions such as:
n-ini 'hare', n-artumi 'fox', n-ilan 'nimas monkey',
n-irun 'squirrel', n-ira 'bird', (generic), n-irur
' swallow', n-irimide 'species of bird reputed to foretell death', etc.
- c) Human beings such as:
n-are 'child', 'boy', n-era 'girl', n-uramai 'dwarf',
n-irdai 'undersized person', n-ilan 'leper', etc;
- d) superstitious objects such as: n-uriny 'evil spirit',
n-uda 'plait of hair', n-ol 'temple', n-irainy 'boil'
(disease), etc;

11- Items in this class compare with items in various Kiswahili classes on an item to item basis:

- i) items in categories (a), (b), (c) and (f) compare with those in n- class (2.2.2.5) in Kiswahili;
- ii) items in categories (c) and (d) compare with items in Kiswahili's n- classes (2.2.2.1 and 2.2.2.2.);
- iii) items in category (g) compare with those belonging to Kiswahili's n- and ma- classes (2.2.2.6 and 2.2.2.15).

This view was obtained from Pastor Ndani Poku Kofi. G. Leach.

12- Items in categories (a) to (f) pair with class prefix ny- in plural.

e) Insects feared for their actions such as;

n-un 'flea', n-idoro 'lizard', n-aiciruiny 'cricket',
n-idirum 'weevil', etc;

f) Some domestic items which are valued for the special purposes they serve at home or for the village such as:

n-ilug 'grainstore', n-uni 'basket', n-ure 'axe',
n-ire 'spear', n-ilgu 'waterskin', n-ulo 'flute',
n-iride 'horn for blowing', etc;

g) Liquids, abstract nouns, and other items conceivable as 'mass' such as:

nem- 'water', nin 'blood', nela 'oil', nan
'milk', nire 'urine', noiny 'saliva', nidra 'pus
discharge', nurtede 'perspiration', niyu 'dew', etc,
nuremina 'colour', namiro 'fine dust', niya 'poison',
nadrigeny 'brain', ninyan 'saltpetre', niro 'work',
nirara 'sauce', etc; and noma 'strength', neleny 'authority',
nima 'witchcraft', nimiri 'love', etc. All the nouns in
this category do not take plural forms.

2.2.1.6. Class prefix li

This is the plural class - marker for all items in class gv-, kw- (2.2.1.1.) which refer to persons, animals, insects and parts of the body.

2.2.1.7. Class prefix j-.

This is the plural class marker for items in:

- a) class kw-, gw- (2.2.1.1.) which refer to plants ;
- b) class k-, g- (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 q- (2.2.1.4.) referring to names of insects and reptiles.

2.2.1.8. Class prefix gw-.

This is the plural class marker of class l- (2.2.1.2) in all its aspects.

2.2.1.9. Class prefix d-

This is the plural class - marker for all items in class q- (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 q- (2.2.1.5) except those designated ' mass', 'abstract', or liquids - - which have no plurals;
- b) items in class k-, g- (2.2.1.3) referring to some parts of the body, 'hollow' objects; and some plants.

2.2.1.11. Class suffix -na

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

2.2.1.12 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 and
- b) consonantal showing similarity to any of the established class - affixes.

All the nouns with initial vowels in Heiban are allocated to plural class j- (2.2.1.7). Their allocation is indicated by their use of the concordial element /j/ which seems to be an allomorph of /j/. In Heiban this allomorphic 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. omur ' sand', evr ' door', or ' passages', eru ' hair (s)', iga ' fire', uwa 'breath', 'air', ayinu ' body', oda ' thirst', adiny 'bullrush millet' etc.

The nouns with initial consonants showing exact or closer phonological similarity to any of the class prefixes are allocated to those particular classes. All nouns involved in this group

are loanwords e.g. lemu 'lemon' (l-class), dukan 'shop' (q- class), kitam 'book' (k-, g- class), tarabeza 'table' (q-class), etc.

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

This class has a zero allomorph. Involved here are nouns such as dönu 'house', nide 'life', nedigen 'a friend', megen 'a brother', murja 'horses', etc, and loanwords such as manga 'mango', burdukai 'orange', etc. The first two and the last two words do not take plural forms; the remaining take li- prefix in their plurals.

2.2.2. ^{2 2} KISWAHILI NOUN-CLASSES

2.2.2.1 ²⁻²⁻¹ Class Prefix m-

This is the singular class-marker, which denotes the "autonomous individualized beings" (Polomé 1967:96), occurring as 'human being' and also as the generic categories m-nyama 'animal' and m-dudu 'insect'.¹³

Examples of this class are:

m-tu 'person', m-afrika 'African', m-jumbe 'delegate', m-ke 'wife', m-zungu 'European', m-toto 'child', mwe-arabu 'Arab', etc; and deverbatives such as m-windaji 'hunter', (∠ winda 'hunt'), mu-okozi 'saviour' (∠ okoa 'Save'), etc.

13- The view considering the last two items as exceptional (cf. Whiteley, 1967:163) 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 " (Heine 1968:6), 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.¹⁴ Of these items only one, *m-ungu* ' god' (class 3), deserves comments -- the others being the contextual elements whose positions (will be) determined in the Postscript.

Morphologically *mungu* belongs to a class seen by some as still preserving the animistic conception of the deity (*op.cit.*, 97). Its treatment with class 1 concordial elements seems instead to relate it to the view that God is a deity 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 - introduced semantic concept.¹⁵

2.2.2 Class prefix *m-*

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

Valley (1967) lists a few representative examples such as *mungu* ' god' (class 3), *fundi* ' craftsman' (class 5), *shameji* ' blind' (class 7), *shameji* ' brother-/ sister-in-law' (class 9), etc.

At first, the usage of this word (and a few others) was only revived by the Christian denominations during their mission to ' de- Islamize' Kiswahili. The Muslims had long rejected this word on the grounds that it has a plural *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).

Polomé has noted that this class contains "non-autonomous individualized beings." This is to say, the items in this class are also seen to possess life just as those of the preceding class, but have a life confined only to certain spaces (and times). This semantic concept can be applied to a whole range of items including mungu 'god', m-mea 'plant' and m-ti 'tree' (and most members of their species), m-ji 'town', m-to 'river', m-oto 'fire', mw-aka 'year', mw-exi 'month', etc. Similar semantic connotations can also be applied to m-oyo 'heart', m-kia 'tail', m-domo 'mouth', lip', m-kono 'hand', which, although they are parts of the body are viewed as possessing some life of their own.

Ashton (1944) showed that m-ji 'town', m-lima 'mountain', mw-itu 'wilderness' indicated the idea that something spreads in space. This idea could also be applied to mw-aka 'year' and mw-exi 'month' -- for which Ashton declared "no explanation can be given" -- and to m-oahi 'smoke'. Mwaka and mwexi spread in time, but there seems to be a belief deep in the mind that behind such spread is some form of life which sets this process in motion and keeps it going. The life in towns, mountains and wildernesses is commonly related to that of the creatures and beings they accommodate and which influence their changing natures. Mlima and mwitu, however, can show, through phenomena like sound - echoes and volcanic eruptions, lives of their own. The items mwaka and mwexi which mark the seasonal changes with influence on the patterns of human life represent life, which turns continually.

The loanwords in this class such as m-fereji 'canal', 'ditch', m-sumari 'nail', m-tihani 'examination', etc, are allocated to this class on morphological grounds -- their initial forms. Although some of these items can be conceived as semantically close

to the items in this class, this is considered to be only a coincidence.

Concerning the deverbatives in this class, Ashton's observation that they take the suffix -o is valid although it has to be noted that the forms with such suffixation can also appear with the pre-fixes ki-, Ø- (an allomorph of ji-) and n- as in ki-zib-o 'cork' (∠ ziba 'stop up') siki-o 'ear' (∠ sikia 'hear'), nyund-o 'hammer' (∠ unda 'create'), etc. Suffix -o is shown by Polomé (1967) as indicating (a) the implement which performs the action and (b) the ultimate result of the action. It is only with the latter connotation that suffix -o is usually preceded by prefix n- of the class under discussion -- as in nw-end-o 'journey' (∠ enda 'go'), n-chez-o 'dance', 'game' (∠ cheze 'play'), n-shon-o 'seam' (∠ shona 'sew'), etc. There is also an example of a deverbative with suffix -e in this class -- the word n-tume- 'prophet' (∠ tuma 'send'), where the suffix expresses passivity.

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

2.2.2.3. Class Prefix ji-

Polomé (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 expended this semantic function to the indication of any of the constituent of group of things occurring in association

with prefix ma- " (op.cit., 97). 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 connotation is still well preserved by all items in this class whose singular forms can be said to show ji-~j- as a prefix. Such items are, however, very few¹⁶ in Kiswahili namely ji-cho 'eye', ji-fya 'cooking stone', ji-we 'stone', j-ino 'tooth', j-iko 'hearth', and a deverbative j-ambo 'matter' (amba '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 bega 'shoulder', goti 'knee', yai 'egg', tunda 'fruit' and deverbatives such as sikio 'ear', pigo 'blow' (piga 'strike'), elezo 'explanation' (eleza 'explain'), etc.

An interesting aspect of this class is its inclusion of the augmentatives. Kiswahili, unlike most other Bantu languages, lacks separate augmentative and diminutive classes. As a result, Kiswahili uses the ji element (viewed by Polomé 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) 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 Kiswahili only diminishes the already augmented forms¹⁷, e.g.

16- Loogman (1965) suggests that fifteen such items exist. This total is, however, disputed.

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. mmundu 'person', ka-mmundu 'manikin', li-kammundu 'very large person'. (ka-, a diminutive class prefix in Yao, is retained after li-, a class 5 prefix. Kiswahili retains ji- augmentative element after ki-, a class 7 prefix)

m-tu 'man' → ji-tu 'giant' → ki-ji-tu 'manikin',
ny-oka 'snake' → joka 'big snake' → ki-joka 'small snake',
m-toto 'child' → ototo 'big child' → ki-jitoto 'very small infant',
duka 'shop' (from Arabic) → (Ø-) duka 'big shop', kijiduka 'an insignificant little shop', etc.

There was an attempt by Whiteley (1967) to present the augmentative and diminutive forms in Kiswahili 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 ki-ji- 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 ^{to be} ~~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 singular class marker, which essentially refers to *inanimate* objects. In the grammatical studies of Kiswahili noun - classes, this class has been considered the easiest in that its pronominal concords have the same forms as the class prefix.

Ashton. (1944) 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-ti 'chair', etc;

- b) the diminutive forms of nouns in other classes e.g., ki-jiko 'spoon' etc, and
- c) words which appear to come under no particular category e.g. kiko 'smoking pipe', ch-ombo 'utensil', 'vessel', etc. (op. cit. 14).

The items in the last category can be put together with those of the first category. Concerning the second category it has been noted previously that the diminutive connotation, like the augmentative one, overrides all the usual basic connotations conveyed by the items concerned.¹⁸ This means that semantically the diminutive items do not require a treatment different from that given to inanimate objects in this class. Morphologically, however, the diminutive items are always distinguished by a ji element which has to follow the ki- prefix. This element ~~was shown earlier to imply~~^{is} that Kiswahili only derives its diminutives from the already augmented forms. It is this ji element which distinguishes the Kiswahili diminutive such as kijitoto 'small infant' from an adverbial kitoto 'childish', etc.

An important feature of diminutives in Kiswahili is that they are used to imply derogation: accordingly, we must reject ^{the} view held by all previous grammarians that derogation is implied in those deverbatives used to refer to " people suffering some disability." These latter items belong to their own category and are a product of ki- which functions with certain suffix - forms to derive " implements or beings " directly connected with

18- The only exception is the word ki-jana 'youth' derived from the augmented root- form - ana 'child'. The acquisition by this diminutive form of the connotation implied in the original item seems to be a recent development, marking a promotion of the word to represent the item for which diminution is not intended.

the process expressed by the verb, e.g. kiziwi 'deaf person', kilema 'lame person', kiwete 'cripple', kinyozi 'barber', kiongozi 'leader', etc. It should be further noted that such deverbatives receive the concordial treatments provided human beings in classes 1/2, which are never applied to diminutives.

All the forms connoting 'physical defect' in the preceding list, together with the other "adverbial-like" forms bearing similar connotations (such as kikono 'person with deformed arm', kiguru 'person with foot defect', kitumbo 'an obese person', kibiongo 'humpback', and kibogoyo 'toothless' (Loogman 1963: 34) 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 kisonono 'gonorrhea', kichowi 'pleurisy', kiungulia 'stomach disorders', kichaa 'lunacy', kifafa 'epilepsy', kitembe 'lisp', kitetemo 'trebling', kichocho 'bilharzia', etc. Most of these forms show verbal connections, which suggests that they are derivations. No plural forms for this category of nouns have been heard in actual use.

ki- is also used in forming adverbials, e.g. Kiswahili 'the coastal or Swahili way or manner', kiungu 'European way or fashion', kishamba 'the rural way', etc. Kiswahili also names languages by using a ki- 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 kifaru 'rhinoceros'. These two, the form kijana 'youth', and the deverbatives referring to persons with disabilities are the only items in this class which receive animate concordial treatment.

2.2.2.5. Class prefix n-

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

- a) names of animals such as nombe 'cow', nyati 'buffalo', nyoka 'snake', kaa 'crab', etc;
- b) names of insects such as nzige 'locust', nyuki 'bee', mende 'cockroach', mbu 'mosquito', etc;
- c) names of fruit such as ndizi 'banana', nazi 'coconut', tende 'date', etc;
- d) names of objects such as kengele 'bell', ndoo 'bucket', chupa 'bottle', mvua 'rain', mbegu 'seed', nta wax, etc.

There are also numerous loanwords in this class which have been allowed into this class by the zero (\emptyset) which occurs here as an allomorph of /n/. Examples are kahawa 'coffee', barua 'letter', dawa 'medicine', motokaa 'motorcar', picha 'picture', sent 'cent', etc.

The occurrence of many names in this class is seen to be due to its primary function - - ' to define the object or being by its most characteristic feature " (Polomé op. cit., 101). Polomé's note that this function is still transparent in Kiswahili is valid; for besides his examples mbega ' colobus' and nyuki ' bee' (the former being" a monkey whose typical feature is white shoulders (mabega)" and the latter " an insect whose main activity is to produce honey (uki)", there are many names in this class whose formations are still easily traceable. These include the names of items such as kengele ' bell' (named by its characteristic sound as expressed in many Bantu languages); pete ' ring' (by the way it is made - peta ' bend'), mbwa ' dog' (by its barking < Kiswahili bwaka), etc. There are other examples like nta 'beeswax' and nyoka ' snake' which, while appearing morphologically closer to the verb forms nata ' stick' and nyooka ' be straight', respectively, also show characteristics conceptually closer to the meanings conveyed by these verbs: beeswax being ' sticky' while a snake can 'straighten' itself (especially when in motion). The words baba ' father' and mama ' 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 /n/ 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.

2.2.2.6. Class prefix u-

This is a singular class. It is noted to result from the merging of two proto-Bantu classes 11(*lu-) and 14 (*bu-) . 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 *lu class origin only, has led scholars like Ashton (1944) to view u- 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 Kiswahili possesses two u- classes is considered here to be unnecessary. The reasons for this are:

- a) morphologically, the two original classes have effectively merged in Kiswahili, 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;
- b) syntactically, all the items in this class share similar concordial forms as opposed to the original situation;
- c) all the items in this class can be conceived as numerically 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 u- class in Kiswahili 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 *lu- class origin and have plural forms. Examples here are ukuta / (kuta) ' wall' unywele / (nywele) ' hair', ndevu / (ndevu) ' beard', ushanga / (shanga) ' bead', ulimi / (ndimi) ' tongue', etc. and deverbatives such as ufagio / (fagio) ' broom' (fagia ' sweep'), ufunguo / (funguo) ' key' (fungua ' open' etc. The latter involve the items which are of proto-Bantu *bu class origin and which have no plural forms. Examples are: uohu ' desire', ' boncupiscence', ume ' manliness', uchi ' naked- ness' and derivations such as wingu ' cloudiness' ' darkness', (wingu ' cloud'), utoto ' childhood' (toto ' child'), utu (mtu ' man'), upeo ' ideal', ' top' (pea ' to be completely developed'), upayukaji ' incoherence' ' indiscreetness' (payuka ' to talk foolishly'), ufugaji ' training', ' tame' (fuga ' to tame' ' to breed'), ujinga ' ignorance' ' folly' (jinga ' stupid'), ubaya ' badness' ' wickedness' (baya ' bad'), etc.

The underlying ideas of this class posed by Ashton deserve further discussion. Ashton (1944) wrote that the ideas underlying u- class items of *lu 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 Polomé's discussion of this class. Polomé (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 these cases to involve items such as ukuta 'wall', ulimi 'tongue', ufagio 'broom', wimbo, 'song', etc. Secondly, Polomé noted this function to have been extended to include mass nouns for which the component of the composite whole was usually not considered an individual item (op.cit, 102) e.g. unga 'flour', udongo 'clay', ugahi 'hard porridge', uji 'gruel', wali '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 udevu 'hair of a beard', ukuni 'piece of firewood', unywele 'hair', ushanga 'bead' etc; as conceptually different from other items such as ukuta 'wall', ulimi 'tongue', ufagio 'broom', uwati 'hut-pole', etc.- the former being the single items 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."¹⁹ Length is variably implied in items ranging from

19- Foreigners very often fail to grasp the way some of these concepts are applied to certain items. The example here is ushanga 'bead', which is usually not conceived of as a single grain - like object but as objects already strung together in lengths appropriate for the waist or neck.

upepo 'wind', uhavu 'rib', ushanga 'bead', etc., to ukuni 'firewood', uwati 'pole', etc. If, however, we remove the concept "mass" from this category of nouns, another place has to be found for mass items such as wali 'cooked rice', unga 'flour', udongo 'soil', 'earth', uji 'gruel', ugali 'hard porridge', umande 'dew', wino 'ink', etc. Apart from wali and wino which are marked as loanwords, evidence from various Kiswahili dialect - studies and from many other Bantu languages ^{(20) 22} shows all the other items in this category of nouns as belonging to the proto-Bantu class 14 (*bu). 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 ku-

This is a class of verbal infinitives which Welmers (1973) considers to share some of the grammar of nouns including the capability of having certain modifiers" (op.cit., 162).

2.2.2.8 Class prefix pa-

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

20- Bryan and Slavikova (1973) for example, mark udongo 'soil' as class 14 in Kimvita and as class 11 or 14 in Kiunguja. In other Bantu languages, Tucker (1960) records obusara 'porridge' as class 14 in Konzo; and Suba (the author's language) has obukima 'hard porridge' and obusie 'flour' as class 14 items. Obusie at least, seems to be a derivation from gie 'grind' (= Kiswahili saga). 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 derivations.

2.2.2.9. Affix ku-

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

Welmers notes that for Bantu this affix and the verbal infinitive affix 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 analysed as the locative of (PB class) 17 before the infinitive of (PB class) 15." (ibid, 163).

2.2.2.10. Affix mu-

This is a locative demonstrative referring to an internal location.

2.2.2.11. Class prefix wa-

This is the plural class - marker corresponding to u- class (2.2.2.1.) in all respects.

2.2.2.12. Class prefix mi-

This is the plural class - marker of class u- (2.2.2.2).

2.2.2.13 Class prefix ma-

Ma- is a plural class prefix. Polomé sees its main function to be "to provide a plural for ji- class" and adds, "this function of ma- has its origin in the early use of the prefix to indicate the whole set consisting of two objects" (op. cit., 97). This function of ma- can be extended as in the case of the prefix ji-. 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 PB class 5 by the zero which occurs in this class as an allomorph of ji-.

However, also listed as class ma- items are objects like maji 'water', mafuta 'oil', 'fat', maziwa 'milk' etc, which have been described by Polomé as indicating "non-itemizable 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 u- class items. However, Polomé'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 u- and ma-, u- 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 Polomé such as:

"ulezi 'tutorial activity': malezi 'training' education,'
ulaji 'act of eating' : malaji 'food', etc, are hardly
convincing. The derivations of this type which end up taking this
ma- seem to be quite independent of u- 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 u- class
items have been recorded as showing ma- prefix in their plural
forms. Out of the 950 indigenous items used by Bryan and
Slavikova (1973: 53-81) in a comparative study of Kimvita and
Kiunguja (the two major Kiswahili dialects) there are only three
items for which proto-Bantu class 14 (or class 11)²¹ items are
shown to pair with proto-Bantu class 6. These items are:

- a) usiku/masiku 'night': marked as 14/6 in both
Kimvita and Kiunguja but also as 11/10 in the latter;
- b) utope/matope 'mud': marked 14/6 in Kiunguja only,
but occurring as 9/10 in Kimvita;
- c) uta/mata 'bow': marked as 14/6 but only used in both
dialects as special alternative to 11/10.

21- Of these two classes (proto Bantu *lu- and *bu-) only lu
class items show a possibility of pairing with ma-. Welmers,
for example, notes "... in Swahili the plural
corresponding to lu- is n-. In some other Bantu languages
there is a parallel pairing of lu- with n- but there are also
a number of languages in which the singular lu- pairs with
plural ma-" (1973:162).

The pluralization of many other u- class items with ma- is seen to be only due to the confusion brought about by differences in dialectal usage; e.g.

ubongo 'brain': occurring only as (proto-Bantu class) 14 in Kiunguja but as 5/6 (bongo/mabongo) in Kimvita;

utaya 'cheek'/'jaw': 11/10 in Kimvita, but occurring as 5/6 (- taya / mataya ' jaw', ' jawbone') in Kiu'nguja;

uele ' illness': marked as 14 only in Kiunguja. In Kimvita it is (proto Bantu class) 9 (nduele) This class 14 form has regularly been given a ma- plural in the standard dialect;

uwele ' millet', 'eleusine': is shown to occur only as 14 in Kiunguja and only as 6 (mavele) in Kimvita;

unyasi ' grass': 11/10 in both dialects, but Kiunguja has a special form manyasi (proto Bantu class 6) which has no singular; etc.

2.2.2.14. Class prefix vi-

This is the plural class - marker (corresponding to class ki- (3.2.2.4) in all its aspects.

2.2.2.15. Class prefix n-

This prefix denotes the plural class which corresponds to:

- a) n-class (3.2.2.5) in all its aspects; and
- b) u-class (3.2.2.6) items which are of proto-Bantu *lu- class origin.

Table 2.1 Summary of Correspondences between Heiban and Kiswahili Classes

Heiban		Correspondence to Kiswahili	
Class	Meaning	Form	Meaning
<u>gw-/kv-</u>	Autonomous and Non-autonomous living things	<u>*</u>	<u>u-</u> ; <u>u-</u>
<u>l-</u>	One of a set or of a group	<u>ji**</u>	<u>ji-</u>
<u>g-/k-</u>	Protruding objects and creatures possessing protuberant parts	<u>ki-</u>	<u>ki-</u> ***
<u>n-</u>	Objects treated with respect or fear (taboo)	-	<u>n-</u> (animals, insects) **** <u>ma-</u> (liquids) <u>u-</u> (abstracts)

*- But comparable to Proto-Benue-Congo *gw- concord and to /g/ and /k/ initials in gor-ko 'man' (Fulani) and kabaka 'king' (Luganda)
Compare also with Kiswahili gwiye 'lion man' (see p 62).

** - Comparable to Proto-Bantu *li 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 'taboo'.

Heiban		Correspondence to Kiswahili	
Classes	Meaning	Form	Meaning
li-	Plural of autonomous living things in class gw-/kw-	-	wa-
j-	Plural of plants and trees in class gw-/kw- and of all living things in other classes	-	mi- *****
gw-	Set or group of things	-	ma-
d-	Plural of long things	n- *****	n-
ny-	Plural of taboo things	-	
-qa	Plural of personal relationship terms	-	ma, na *****

***** - The Kiswahili class does not include "all living things in other classes".

***** - Comparable to Proto-Bantu preprefix *di still retained as zi 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 Heiban's singular class prefixes, l-, g-/k-, and the plural class prefix d- correspond with Kiswahili's ji-, ki-, and the plural class- marker n-, respectively, in the manner described below.

2.3.1.1. Heiban's Class prefix l- and Kiswahili's prefix ji-

The Heiban prefix form l- morphologically corresponds to proto-Bantu (PB) and proto-Bantu-Congo(henceforth PBC) class*li. Kiswahili, a descendant of these language groups, does not itself show the form li- as its class prefix. The form li- has, however, been retained by Kiswahili as a pronominal concord affix for its class ji-, which matches Heiban's l--class.

2.3.1.2. Heiban's class prefix g-/k- and Kiswahili's class ki-

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

2.3.1.3. Heiban's plural prefix d- and Kiswahili's prefix n-

The Heiban class form here can be said to be morphologically correspondent to a reconstructed PB class 10 prefix*di-. This PB form occurs as a pre-prefix and is still being prefixed as si- to n- class prefix forms in certain Bantu languages(e.g.

Zulu inyonyi/izinyonyi 'bird'). A relationship between the Heiban prefix d- and PB (*di- ne) could be supported by the fact that both function semantically as plurals of some 'long' items in the languages concerned.

However, Kiswahili, which is said to have used the preprefix form in question (Polomé, op.cit., 98) now retains the form zi only as a pronominal concord affix for its class n- which matches Heiban class d-.

2.3.1.4. Other morphologically comparable forms.

Also regarded ^{here} as morphologically relevant for comparison at a diachronic stage is Heiban's class form gw-/kw- (2.2.1.1.) This class, although not directly corresponding to its Kiswahili counterpart - prefix n- (2.2.2.1), corresponds in form to a concord affix *gw- which has been reconstructed for the PBC²² class matching Heiban's (See De Wolf, 1971: 51). Although the reconstructed class prefix for this particular class in the PBC system is shown as a vowel (*u, *o), there is a number of reconstructed noun forms which show kw- initially, and which correspond morphologically but ^{are} not necessarily cognates to nouns in Heiban. These

22- PBC = Proto-Benue-Congo: referring to an outline of the reconstructed class-system based on comparison of individual languages of the Benue-Congo group in Niger-Congo.

The outline and the details of the procedures involved in its reconstruction appear in the book The Noun-class System of Proto-Benue-Congo, by De Wolf, P., Mouton (1971).

nouns are:

<u>P B C</u>	<u>Heiban</u>	<u>PB</u>	<u>Kiswahili</u>
* - <u>kwomo</u> 'chief'	<u>kw-oma</u> 'man' of	* <u>kumu</u> 'chief'	<u>fumo</u> 'chief' ²³
* - <u>kwasi</u> 'woman'	<u>kw-a(1)</u> 'woman' of.	* <u>kadi</u> 'woman'	<u>m-ke</u> 'woman/wife'.
* - <u>kwon</u> 'tree' ²⁴	<u>kw-are</u> 'tree' of	* <u>ti</u> 'tree'	<u>m-ti</u> 'tree'.

gw-/kw- prefix for 'persons' in Kordofanian languages has also been compared to noun forms with initial /g/, /k/ such as gor-ko 'man' in Fulani and kabaka 'king' in Luganda (Gregersen, 1972:71).

2.3.1.5

Another item worth considering here is the widely acclaimed correspondence between Kordofanian q- class and Bantu na- class (Greenberg 1963). It is however important to indicate at this juncture that the Kordofanian class in question should appear as qw-. Although this correction 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 nasals generally.

It was indicated earlier that the Kordofanian classes q- and qw- 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 na- in Heiban, for example, contains items like qau 'water', qela 'oil', qoiny 'saliva', qan 'milk', while class qw- contains items such as qw-ony 'eggs', qw-inena 'cheeks', etc, but all the Kiswahili equivalents of the

23- In Kimvita dialect.

24- All the examples show the alveolar sounds /r/, /r/, and /t/ in the root forms.

above-mentioned items (le-maji 'water', mafuta 'oil', mate'saliva, maxiwa 'milk', ma-yai 'eggs', ma-shavu 'cheeks') belong to class ma-. What requires attention here is the fact that it is not necessary to treat the initial forms of the n- class items above and those of their Kiswahili 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 /n/ and /m/. The environments for their occurrence may, however, be regarded as different from that involving the class-prefix forms.

2.3.1.6.

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 morphologically comparable features. (These are not necessarily cognates.)

English gloss	Heiban	Kiswahili	Proto-Bantu
man	<u>kw-oma</u>	<u>m-ume</u>	<u>*-duma</u>
mouth	<u>l-inyu</u>	<u>ki-nywa</u>	<u>*nywa</u>
clan	<u>gw-are</u>	<u>m-bari</u>	
shade	<u>kuwöl</u>	<u>ki-vuli</u>	
leaf	<u>g-öni</u>	<u>jani</u>	

From these few examples it is possible to say for certain that the m sounds in Heiban and Kiswahili 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 (= 4 in Heiban and 6 in Kiswahili), 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 Kordofanian 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 Heiban class gw-/kw- correspond semantically to items in Kiswahili m- 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 Heiban and Kiswahili also include some, although different, parts of the body in these classes (cf. Heiban gw-iriny 'waist', gw-ural 'bladder', etc. with Kiswahili m-kia 'tail', m-oyo 'heart', m-kono 'hand', 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 Kiswahili m- classes have been conceived of as containing 'autonomous' ^{and} non-autonomous living beings (Polomé, 1967), respectively. In Heiban, concepts somewhat related to these may be visualized through the way the items in class gw-/kw- pair. It is observed that in Heiban all non-autonomous living objects like trees in class gw-/kw- and all other living beings allocated to other classes (showing overriding of other concepts; See Postscript 1.4) take class prefix j- in their plural forms. The autonomous living beings (human beings, animals, insects) and parts of the body in class gw-/kw-, on the other hand, take li- prefix in their plurals.

Examples of semantic correspondences between items in these classes are:

<u>English Gloss</u>	<u>Heiban</u>	<u>Kiswahili</u>
person	<u>gw-iji</u>	<u>m-tu</u> → <u>mgwiji</u> = 'lion man' in Swahili, supplied by Prof. M.H. Abdulaziz.
man	<u>kw-oma</u>	<u>m-uma</u>
medicine man	<u>gw-uma</u>	<u>m-ganga</u>
chief	<u>kw-elony</u>	<u>m-tani</u> → <u>mw-inyi/mw-enge</u> 'chief' also by P. Abdulaziz
tree	<u>kw-are</u> (pairing with <u>j-in</u> plural).	<u>m-ti</u> (pairing with <u>mi-</u> in plural)

2.3.2.2.

Another conceptual correspondence is noted between the contents of class l- in Heiban and class ji-, Ø in Kiswahili. Both these classes contain one of items that occur in sets/pairs and in large groups, including some parts of the body.

Examples include:

<u>English Gloss</u>	<u>Heiban</u>	<u>Kiswahili</u>
egg	<u>l-oiny</u>	<u>Ø-yai</u>
flower	<u>l-aun</u>	<u>Ø-ua</u>
grain stalk	<u>l-uboran</u>	<u>Ø-bua</u>
trunk of tree	<u>l-urua</u>	<u>Ø-shina</u>
rooster	<u>l-ugugore</u>	<u>Ø-jinbi</u>
knot	<u>l-urū</u>	<u>Ø-fundo</u>
a hole	<u>l-ubiro</u>	<u>Ø-shino</u>

2.3.2.3 Heiban's class g-/h- and Kiswahili's class ki-

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 Heiban and Kiswahili names them according to the characteristics of and/or effects upon the body parts involved.

Examples are:

<u>English Gloss</u>	<u>Heiban</u>	<u>Kiswahili</u>
butterfly	<u>k-apipir(also moth)</u>	<u>ki-pepeo</u>
kite	<u>k-ubwanga</u>	<u>ki-panga</u>
bird's nest	<u>g-idul</u>	<u>ki-ota</u>

<u>English</u> <u>Gloss</u>	<u>Heiban</u>	<u>Kiswahili</u>
bush	<u>kedo</u> (no plural)	<u>ki-chaka</u>
shoe	<u>k-ande</u>	<u>ki-atu</u>
knife	<u>k-öda</u> (pairing with <u>ny-</u> in plural)	<u>ki-su</u>
pot	<u>k-ide</u> (")	<u>ch-ungu</u>
deaf	<u>g-irila</u>	<u>ki-ziwi</u>
humpback	<u>g-urinar</u>	<u>ki-biongo</u>
piece, section	<u>g-idria</u>	<u>ki-pande</u>
gourd	<u>k-ukul</u> (a long one)	<u>ki-buyu</u>

2.3.2.4. Long Things

The items designated as ' long ' in the two systems belong to Heiban's d- and Kiswahili's class u-.

The following examples can be said to correspond semantically:

<u>English Gloss</u>	<u>Heiban</u>	<u>Kiswahili</u>
rib	<u>d-iml</u>	<u>u-bavu</u>
jaw	<u>d-idim</u>	<u>u-taya</u> (Kinvita dialect only)
tongue	<u>d-ipila</u>	<u>u-limi</u>
wood	<u>d-uri</u>	<u>u-bao</u>
crack	<u>d-iraka</u> (in earth)	<u>u-fa</u>
cord, string	<u>d-ar</u>	<u>u-gve</u>

2.3.2.5 Abstract Nouns

Abstract nouns occur in Heiban's class n- and Kiswahili's class u-. 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 /n/ and /u/ initials) in the two systems is noted in the following examples:

<u>English Gloss</u>	<u>Heiban</u>	<u>Kiswahili</u>
witchcraft	<u>nima</u>	<u>uchawi</u>
love	<u>nimiri</u>	<u>upendo</u>
stealing	<u>nuram</u>	<u>wizi</u>
a quarrel	<u>niduro</u>	<u>ugomvi</u>
fear	<u>nideny</u>	<u>uoga</u>
idleness	<u>niduma</u>	<u>uvivu</u>

2.3.2.6. 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 li of PB class 5 (see Yao 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). Kiswahili which was noted to lack separate diminutive classes seems to be the only example at hand making use of ji.

element (cf. proto- Bantu * gi of augmentative class 21, *see* Appendix A) in deriving its augmentatives. But like its Bantu counterparts, Kiswahili allocates such derivations to PB class 5 - done on the basis of similarity between ji element and the class prefix ji-. Kiswahili then derives its diminutives from the augmentative forms by retaining ji element as a base after ki- prefix (see 2.2.2.3) and allocates them to PB class 7.

The augmentative and diminutive situations described here seem to involve a process which has affected these concepts in various Bantu class systems.

In Heiban, no particular classes can be said to contain items bearing augmentative and diminutive concepts in a manner comparable to Bantu. For while in most Bantu languages the items bearing these concepts are derivations from certain common forms (e.g. mtu 'person' \longrightarrow jitu 'giant' \longrightarrow ki-jitu 'manikin'), in Kordofanian languages the items designated augmentative and diminutive (Stevenson 1956/57) seem to have been designated *thus* on the basis of their physical sizes.²⁵

Place affixes, of which only one is reflected as a noun - prefix in one Kiswahili dialect (Kimvita) in a word of foreign origin (pa-hali, from commonly used Arabic word mahali), appear to hold very insignificant positions in Bantu noun-class systems generally. Heiban shows nothing in its class- system that is comparable to the concept of 'place' in Kiswahili.

2.3.2:7.

Some items in Heiban's class d- and Kiswahili's class n- correspond semantically as plurals for long objects.

25- Stevenson(1956/57), for example, notes sp-(class 15) which contains 'diminutives' in Tagoi to include 'small animals', etc.

2.3.2.8.

Heiban's li- class and Kiswahili's wa- class are both plural-markers for autonomous living beings in classes gw-/kw- and 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 gw- class and Kiswahili's ma- 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 j- class and Kiswahili's 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 Benue - Congo and Kordofanian language-groups. Nonetheless, because this study has considered only one aspect - - the noun - class system - - and that 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 Heiban and Kiswahili 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 Dalby (1970:147 - 171). The establishment of systematic noun-class relationships across the large number of languages thought to be genetically within the Benue-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:

	Kordofanian	Bantu	Plateau	Cross- River	Jukunoid	Bantoid
PBC	PB	(Heiban)	(Kiswahili)	(Irigwe)	(Boki)	(Kuteb) (Tiv)
*u, *o ⁺	*mu	gw-/kw ⁺⁺	m-	a, ø	o-	u- ngu
*li	*li	l	ji ⁺⁺⁺	ri-	le-	ri- ngi
*ki	*ki	g-/k	ki	ø	ke-	ki- ki

+ Has a *gw- concord.

++ Other Kordofanian descendants have labial prefixes p- and b- for this class.

+++ Has a li 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 Benue - Congo within the latter unit - - may be too distant. Kordofanian, rather, seems to be related closely to Benue-Congo, 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.

POSTSCRIPT

CRITICAL

NOUN-CLASSES: A BRIEF SURVEY

1.1. Noun-Class Languages

The notion of noun-class has been recognised for a number of languages and is seen to have a variety of morphological and syntactic realisations and semantic bases (Dixon 1968:106). 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 areas 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 Niger-Congo groupings except the Benue Congo - have been considered to show remnants 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 zones which include languages noted to show both the noun-classes and gender¹ in their structures (Tucker and Bryan 1966 : 188). 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 1.2.1.

Earlier studies of African languages possessing noun-class systems were essentially centred on the Bantu group. This group of languages has been considered important in the classification of African languages in that it shows a substantial amount of linguistic homogeneity of noun-class systems and grammatical functions (Welmers, 1973:159), and involves a huge population - - estimated to be over sixty million. Many Bantu languages are also seen to have a large number of noun-classes, a fact which has been regarded by some scholars as showing the maximum development of classes in these systems - - especially when viewed in relation to others which show only a few classes. But although noun-classes have remained a fairly typical criterion² for the classification of the Bantu group, this group has more recently been considered merely a subsection within a family of numerous and widely distributed languages (Greenberg, 1963). Although the affinity of these numerous languages had been sensed a long time ago, it is Greenberg who, basing his argument upon the classifying affixes as well as pronominal elements (op.cit., 10) and intending to establish a genetic relationship, grouped them into the family which he called Niger-Congo.

1.2. Definition of noun-classes.

The definition of a noun-class in reference to Bantu languages has customarily been based on one of its several characteristic features. A noun-class is indicated by the occurrence of affixes which are attached to most noun stems, and of the

2- This however, is not the only criterion in classification of languages. Other factors such as lexical relationship are also used (cf Greenberg, 1963:9).

concordial affixes which mark the agreement between the nouns and the other grammatical categories in the syntactic structure. A noun-class is also noted to show some degree of semantic correlation.

Scholars have often differed in their choice of which one of these features to use as a base in defining noun-class. Most of the early studies often dealt with nominal affixes in describing and analysing 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. Heine (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., 5,6)³. 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" (Barton and Kirk, 1976:161).

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. When 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.⁴ Prompted by this fact, some scholars have suggested recently that several of these elements should be taken together when defining noun-classes. Welmers(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" (op. cit., 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.

4- 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 analyse.

1.2.1. "Noun-classes" and "Gender"

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

Gender, which is generally understood to denote or at least to include a sex basis, (Lestrade, 1948 : 176) was used by the early Bantuists (Guthrie, 1948) to refer to noun-classes. Guthrie (op.cit.) also talks of "one-/two - class genders" with reference to noun-classes, but Dixon (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 Bantu and other noun-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" (De Wolf, op.cit., 27). De Wolf 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 analysing a noun-class system, De Wolf 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.

1.3.1. 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 (Welmers, op.cit., 166). 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 prefixes⁵ in a sequence (ibid., 168).

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. Kambari and a number of other Nigerian languages), some using only class suffixes (e.g. many of the Gur languages, Tula, Longuda, etc.) and some using both prefixes and suffixes in varying degrees (e.g. Tiv in Nigeria)" (op.cit., 252).

5- Most Kiswahili 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 Suba o-mu-ntu ' person ', while three prefixes are seen in Zulu class 10 i-xi-n- before a stem, as in i-xi-ny-enyi ' birds '.

Hoffman and others also note that Fula uses class suffixes but has a system of stem-initial consonant permutations which has been viewed as probably showing " a trace of a former presence of noun-class prefixes directly related to the present class suffixes " (ibid.) . Haiban, a Kordofanian language which is to be compared with Kiswahili, uses prefixes and a suffix.

Most of the formal presentations of nominal affixes of various noun-class languages have usually indicated only one prefix or suffix form. The other affix forms noted above have, in most cases, been ignored. The main reason for overlooking these extra affix forms seems to be the common desire among scholars "to permit an overall view of the total noun-class system, if only in a gross way " (Welmers, op.cit., 166) in their presentations. A presentation of this sort is seen to have been widely used in comparative studies which usually aim at specifying only those elements that are comparable in different languages. The comparative approach to noun-class analyses has, however, been regarded as awkward, leaving unanswered many questions in the synchronic description (Bennett, 1970:49).

However, some of these omitted affix forms have proved significant in deeper analyses of certain diachronic and synchronic aspects of noun-class forms. It is noted, for example, that " a semantic distinction based on the presence or absence of a 'preprefix' vowel (a reflex of proto-Bantu prefix) is attested in a few Bantu languages " (Welmers, op.cit., 168). The stem-initial consonant permutation previously noted to occur in Fula also evidences the significant position such forms may hold in any deeper analysis of class forms.

The occurrence of several prefixes before some stems in Bantu languages (See footnote 4) has often led to a demand that one of them be used in analysing 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 " (ibid). The ji element in Kiswahili (a proto-Bantu * gi), whose position has been controversial, is used in deriving augmentatives in Kiswahili. However, this same ji 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: 38) 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 2.2.2.3).

1.3.2. Subclasses

The systematic presentation of nominal affixes for various class systems has brought about other nominal class affix forms which are referred to here as subclasses⁶. The term subclass is

6. The term ' subclass' appears in F.D.D. Winston's paper " The nominal class system of Lokɔ " (1962:58) 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 Meinhof. The Proto-Bantu list of prefixes (See Appendix A) shows only five such classes: 1a and 2a (added by C.Doke), 2b and 8x (added by D. Cole) and 6a (added by Welmers), but similar class subdivisions have also been recently listed for individual languages.⁷

Bennett (1970) notes that subclassification in recent works involved only " the set of nouns lacking a trace of a prefix" (op.cit.,49), 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 * 2a and 2b, respectively only show a phonological difference from proto-Bantu (PB) 2 (va), and are said to be " very nearly in a complementary distribution among Bantu languages "(Welmers,

7- Whiteley, for example, identifies 5a/6a (ji-/ma-), 7a/8a (kiji- /
viji-) and 10a (n-) for Kiswahili. He had earlier (1961) identified 1a/2a (na-/acina-), 1b /2b (ø-/aci-) and 5a/6a
(likan-/makam-) for Yao.

op.cit., 166). Classes 8 and 8x (PB *u1 and *li 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 dialectal⁸ 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 affix 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

1.3.3 Other variant affix forms.

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

- i) allomorphic variations for certain established affix forms, usually determined by environments in which the affix form occurs;
- ii) the absence of affixes from certain noun stems - a feature generally marked by what has been termed a "zero morpheme."

⁸- These are shown as forms which occur in certain dialects only. Their position, therefore, differs from that of the allomorphic variants discussed in 1.3.3.

⁹- For Welmers' 6a 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 allomorphic variations¹⁰ which are due to the phonological conditioning of the affixes 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. Kiswahili, for example, is seen to have lost one or more sounds in words like mume 'husband', mungu 'god', moto 'fire', and obtained a new sound in a word like meno 'teeth' (from ma + ino): this has led to such words being considered exceptional or irregular.

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

10- For Heiban and Kiswahili variants see 1.1.4. and 1.2.4., respectively in Chapter 1.

11- Heine (1968:3,4), however, managed to present such class allomorphs for Basila. His presentation shows, for example, 5 allomorphs for Basila class A/BA, 3 for class N/A, 2 for class u/I and 1 for class BU/A.

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.*, 55) 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 analyse 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 (4) classes in Kikuyu 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 variant¹². 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)¹³, 9 (* ne) and 10 (* li-ne)⁺.

12- This seems to be true also of noun-class languages other than Bantu. For example, Tiv (Bantoid) has zero as an allomorph of its class 1 (NGU). Heiban (Kordofanian) also has 'Zero' as an allomorph of its class 1 (gw-/kv-); and, of the 4 'Zero prefixes' which Hoffmann (1967: 242 ff.) marks for Dakarkari (belonging to Plateau sub-group of Benue- Congo), one (ø - "i") is clearly an allomorph of ḡ- and/or ḡ-, all of which are shown to be plurals of V-. The others (singular ø - "v") and its plural ø - "a") clearly form one suffix case. Although Hoffmann regards this plural suffix of animate nouns as a " further exponent of the noun-class already indicated by the prefix " (op.cit., 240), the situation is quite comparable to Fula suffixes which are treated as suffixes although showing " a stem-initial consonant permutation. " It is therefore only the remaining one (ø - "u") which, on the basis of limited data, cannot be easily accounted for here.

13- Even the examples ithe/ma-ithe 'father', and hinya/ma-hinya 'strength' listed by Bennett (op.cit., 52,53) as belonging to group Ac and Cd (PB classes 1 and 3) respectively in his table I, are morphologically proto-Bantu class 5 items. The retention of the latter in that class, even concordially, is highly doubted here.

+ (* di-ne) " à la Guthrie "

The prefix forms of these classes in most individual Bantu languages have zero¹⁴ as their preconsonantal¹⁵ allomorph. In Kordofanian languages, and Heiban specifically, class 1 (gw-/kw-) has a zero allomorph; It is this class which accommodates non-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 nouns agree in concord.

1.3.4. Pairing, Gender and Number

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

" In many Bantu language grammars, accordingly, 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 Kiswahili by Whiteley (1967) in the statement: "zero affixes are possible only in three classes " (op.cit., 163). He lists these as 5, 9 and 10.

15- In most other cases the allomorphic variation tends to be a prevocalic feature (Cf. Welmers, op.cit., 166).

in addition there may be some 'classes' with only one prefix reflecting the identity of singular or plural or the absence of numerical distinction" (op. cit., 161).

In synchronic studies, class has been defined as " a set of nouns of a given concord showing a given prefixed morpheme" (Bennett op.cit., 54). Pairing has been defined as " a set of two class components constituting one gender " (De Wolf op.cit., 43); and De Wolf ~~sees~~ 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 agrees, nevertheless, that "for some pairs there is at least a partial semantic correlation" (op.cit., 161). Bennett (1970), on the other hand, thinks that pairing is irrelevant to class and questions the part pluralization plays in determining class affiliation.

Bennett's statements about pluralization require some co-ordination before any comment can be made: he notes pluralisation (in Kikuyu) 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., 54, emphasis supplied). Finally, Bennett - for reasons such as irregularities in pluralisation and its similarity to various

types of derivation in Kikuyu - suggests the separation of this process 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 " (ibid.), what else is there about these processes which makes them important for the complete description of a noun-class system and yet separable 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 morphemes 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 noun *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 Heiban (the Kordofanian 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. Heiban's class j- is one such class, and pluralizes, for example, all items referring to ^{plants} in the singular class kw-/gw- as well as those referring to plant products (fruit, wooden articles, etc) in the singular class k-/g-. 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 Tiv (Bantoid) which Arnott (1967:49) notes to show " two or three plural classes corresponding to any given singular class" may reveal a situation similar to that in Heiban 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 Arnott (1967) terms " abstract, collective and other nouns to which neither singular nor plural meanings can be assigned" (op.cit., 61). Bennett, for example, picks one of the classes (PB (* Ma) class or group F in his presentation) known to contain these categories of nouns and surmises :

16- There are, for example, items in Heiban's g-/k- class such as k-erbeny ' armpit', k-abina 'eyelid', g-u ' breast', etc, which pair with j- prefix in plural and others such g-ile ' shoulder', g-irel ' cheek', g-oni ' ear', k-ibo ' wing', etc, which pair with ny- in plural. (For details see Chapter 2 Section 2).

" A noun in group F whether plural or collective, whatever its singular if any, whether the singular prefix is present or absent, whether the plural of *a* derivative abstract or otherwise, behaves exactly the same concordially as do all other nouns in group F (op.cit., 54).

He uses this point of view to argue against pluralization 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 (cf. Welmers 1973) 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, Welmers marks as numerically neutral five out of twenty-three classes listed for proto-Bantu, and divides class 6 (PB *ma) 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. " Welmers further marks two (or even all the three) number labels¹⁷ for each of the few classes occurring

17- For example, he marks class 13 as " plural / neutral "; class 14 as " singular/plural/neutral "; and class 19 as " singular/plural " (op.cit. 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 what 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 seems 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 Kiswahili, liquid mass is syntactically treated with plural elements and is thus perceived as plural, while abstracts receive singular treatment syntactically, and thus are singular; in Heiban, both liquid mass and abstract nouns belong to a singular class n - .

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 pairing 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 Heiban and Tiv examples). This approach certainly satisfies the " semantic, statistical and pedagogical" conditions which Welmers sees to be the only merit in the pairing of forms. Otherwise " each singular and each plural [class] prefix has to be individually described in any case " as (Welmers, op.cit., 192) suggests.

1.3.5 Concord

Concord has been defined as " system in which two or more sets of inflexional class affixes (indicating gender and number) are attached to different lexical items, provided these lexical items comprise the noun stems of the class language involved and at least one type of modifiers or substitutes of these nouns" (De Wolf, op.cit., 41).

In his study of Kiswahili, Madan (1921) noted this language to have two distinct sets of concord, which made Kiswahili more difficult than those having only one set. He further posited one of these concord sets ¹⁸ - the pronoun set - as entering far more widely into the structure of the language " (op.cit., 14) .

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

18- For the way ' 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 (1968) view that the definition of noun-classes based on concord helps reduce the number of classes considerably confirms the view advanced by De 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 kept (and may continue to keep) concord prominent in discussions of these noun-class systems which have concord is its undoubted 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 [Benue-Congo] languages without concord" (op.cit., 29). Elugbe (1975) says of Degema: "There is no concord of any type in Degema...." (op.cit., 226) (Degema is an Edo Language belonging to the Eastern section of the Kwa branch of Niger-Congo).

20- This is the position taken by Gerhardt (1968-1969) 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 overt a zero (Ø) feature is often assigned to the pronominal position. But, while the emphasis upon the affixes making the "category" of gender selective" may well justify the exclusion of concord,²¹ 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 morphemes (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

21- De Wolf omits concord in order to allow the inclusion (into his analysis aimed at reconstructing a proto-class system from features shown by a substantial number of languages) "of those languages that do manifest the full array of class prefixes with nouns manifesting these gender classes but showing no concord" (op. cit., 35) 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 systems.

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 nouns. 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 unlocked²² in analysing 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.

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 preto-Benne-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 (Lestrade 1948; Worsley 1954) 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., 117).

What seems to be the real issue, however, is whether such semantic correspondence can have its rules 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 Bantu 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 memberships. 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 Denny (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 where they do in the noun-classes of ^{the} Dyirbal 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 on 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 systematization" (op. cit., 23).

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

Krapf (1850) 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 Ohly (1965) terms the " assumption that class is a linguistic category which represents some semantic value ^{and} 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 ultimately 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-ascription 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,²³ 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 connection 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 affect 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 knew about.

similarity of words " (Barton and Kirk, 1976: 157). 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.²⁴ 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

24- Whiteley (1967) does this for Kiswahili and finds, for example, that:

"Items in class 1/2 designate human animates . . . Items designated human animates may however, be allocated to any of the classes 3-10. . ." (op. cit., 163).

elements of the main meaning with contextual elements" (^{as}quoted by Ohly, 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 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:

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

The situation involving the contextual element is, however, much more complex. One needs to analyse 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 deverbatives 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) Whitely (1967) simply remarked that "the quality of the augmentatives override the quality of human animateness" (op.cit., 163). This 'overriding' of the augmentative and diminutive connotations can be illustrated by the Kiswahili example m-toto 'child' (class 1) which has an augmented form toto (belonging to class 5) and a diminutive form kijitoto (belonging to class 7). 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 differ, with one concept overriding the basic concept. In Heiban, too, examples of this sort are noticed; some animals in Heiban are classified on the basis of concepts such as those involving body shapes (i.g. q-ul 'giraffe' for its 'long' body parts', etc) or attitudes towards them (e.g. q-in 'dog', and most tamed animals; respected due to their relationship with the Heibanese). These 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 conceptions 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 underlying 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 'deverbatives.' In Kiswahili, for example, most names of animal species belong morphologically to classes 9/10. Polomé (1967) notes the essential function of the prefix n- (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 Heiban such as those mentioned above, with the characteristics of prominent body features playing a major role. Kiswahili also uses the ki- 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, Kiswahili names for animals such as gombe 'cow', nyati 'buffalo', and mbwa 'dog', all receive animate treatments, although morphologically they belong to classes 9/10. It also explains why beings such as ki-ongozi²⁵ 'leader', 'guide' (∠ongoza 'lead'), ki-nyosi 'barber' (∠nyoa 'shave'), and ki-zivi 'deaf' (∠ziba 'stop up'), - - morphologically belonging to classes 7/8 - - receive human treatment while their implement counterparts such as ki-zibo²⁶ 'cork' (∠ziba) and

25- This same word can also be used to refer to a 'thing' guiding a person. The personal connotation, however, has an alternative form mw-ongozi (class 1) which also has a 'thing' - counterpart mw-ongozo (class 3).

26- Concerning the 'deverbatives', it should be noted that the suffixes functioning with such prefix elements also have a role in distinguishing, for example, implements from beings. This appears to be the case with the suffixes -i and -o in the above examples.

ki-funiko 'lid' (< funika 'cover') remain in the inanimate classes 7/8 in all their aspects.

The situation involving the personal relationship terms - usually belonging morphologically to classes 5/6 and 9/10 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) overridden by the semantic correlations 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 Heiban (Ø)/-ŋ^a, which also refers to personal relationships.

The preceding discussion has shown that the affix shapes of nouns are not without semantic importance. Each of these affix forms conveys 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 nominals 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 nominals - do not themselves seem to distort the underlying form/meaning correspondence in any way. Instead, they mark 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.

1.5. 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 " (op. cit., 380).

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

- a) the type of the class system: whether a prefix or suffix system, or both, and
- b) the shapes of individual prefixes or suffixes in such systems.

The allocation of loanwords to classes is seen here 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 is seen 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 treated 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 Kiswahili examples:

- a) Kiswahili's class 3 (prefix m-) has:
m-tihagi 'examination' (/ Arabic / mtiha:n/),
m-fereji 'ditch', 'canal' (/ Ar. /mfir(j)/),
m-shahara 'salary' (/ Ar. /mša?hrah/);
- b) Class 5, (ji-, j- element and \emptyset allomorph) has
sharti 'binding contract' (/ Ar. /šart/),
japani²⁷ 'japanese' (/ japa:n/),
jarumani 'a German' (/ jerman /),
kabati 'a cupboard' (/ Engl. /k^b^rd /);

27= These forms are in use although they can alternatively take the m-/wa- prefixes of classes 1 and 2. In this class, plurals are formed by the ma- prefix before the singular forms, their presence signifying the relevance of the initial form in allocating loanwords.

c) Class 6 (prefix ma-)²⁸ has:

mahari ' dowry' (< Ar. / mahr/),
maisha ' life' (< Ar. / maʕīshah/);

d) class 7 (prefix ki-/ch-) has:

kitabu ' book' (< Ar. / kitaʔ/),
cheti ' note', ' chit' (< Hindi / dīṭ/);

e) Class 9 (prefix n-, allomorph) :

kalamu²⁹ ' pencil', ' pen' (< Ar. / qalam/),
bakshishi ' tip' (< Ar. / bakāshīṣ/),
lugha ' language' (< Ar. / luyāq/),
wiki ' week' (< Engl. / wɪk/),
eroplani ' aeroplane' (< Engl. / ɛrɒplən/);

f) Class 11 and 14 (prefix u-, w- allomorph) has:

wakati ' time' (< Ar. / waqt/),
umri ' age' (< Ar. / ʔmr/),

28- There are, however, many other loanwords with initial ma which receive n- class (9/10) treatment such as madini 'metal' (< Ar. / maʕdīn/), mali ' property' (Ar. / mal/), makala ' written article' (< Ar. / makāl/) and maschine ' machine' (< Engl. / maʃiːn/), a treatment which allows the number (singular/plural) distinction for these words.

29- What seems to matter about kalamu ' pen' (class n-, \emptyset) and kabati ' cupboard' (class ji-, \emptyset) is the zero prefix they are provided. Each one then settles into one of the classes with zero allomorph without their original ka initials 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 to which they are allocated this is viewed here only as a coincidence. This view disputes the inclusion of Arabic loanwords in the Bantu classes which "best fit their semantic content" (Polomé, *op.cit.*, 171). The example which Polomé uses to justify this position is itself a Kiswahili creation from a borrowed form³⁰; even so it does not seem to deserve the naturalised status which is usually accorded to certain loanwords in the suffix systems (discussed below) on the basis of their meaning.

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

- a) KA class has: giya 'beer', jiiba 'pocket',
hujja 'excuse' etc;
- b) NGAL class: -a jangal (<Hausa jangali 'cattle tax')
(*op. cit.*, 55).

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

30- Polomé uses the word mtofaa 'rose-apple tree' from Arabic /tuffaah/ as the only example to support his case. However, the retention of the original borrowing tofaa in Kiswahili, as a class 9 item referring to the fruit, seems to depict mtofaa only as an 'automatic' reference to the tree of the borrowed fruit name.

borrowed words are naturalised by means of a class suffix", adding, " in such a case they take the same class as a Fula word of similar meaning " (ibid., 55). Here it is the semantic connotation of the borrowed word which is taken as basis 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. Fula examples are:

- Class 'O' alkaali-j ' a judge' (person);
- Class NDE leem-re 'orange', 'lemon' (fruit);
- Class NGAL teebur-wal ' table' (object made from wood);
- Class KI durmi-hi ' figus tree' (tree) (ibid.)

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

The other category of class-system seen to be worth examining here is that system which utilizes both prefixes and suffixes. Examples of languages known to possess such a system are Tiv and Heiban. Arnett sees Tiv to take loan nouns in the same form as in the source language and places them in class 1 (NGU) no matter what the meaning" (ibid., 56), while Welmers (1973:205) notes

this Tiv class to have a zero affix. Arnott 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. Heiban, which also has a zero for its class 1 (gw-/kw-), 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 whom 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 patterns³¹ which are comparatively close to those of

31- The English language is representative of languages in this category. It is on these grounds that Canon B.W. Bloomfield suggested that Kiswahili should only borrow from Arabic, which as far as the initial forms of the nouns are concerned, has more nouns showing close similarity to Kiswahili 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 permanently³² 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 Kiswahili readers the following instruction:

"Remember that many nouns are not kept rigidly in either this [ji-/Ma-] or 'H' class and may easily be placed in either class as considered appropriate" (op.cit. , 234).

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

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APPENDIX A

PROTO-BANTU (PB) CLASS SYSTEM
(After Welmers Wm E. 1973:165).

Class	*PB
1	no-
1a	Ø
2	va
2a	ʋa-
2b	ʋo-
3	no-
4	ne
5	le-
6	na-
6a	na-
7	ke-
8	ʋi-
8x	li-
9	ne-
10	li-ne (di-ne' à la Meinhof)
11	lo-
12	ka-
13	to-
14	vo-
15	ko-

16	pe-
17	ko-
18	mo-
19	pi-
20	go-
21	gi-
22	ga-
23	ge-

APPENDIX B

THE NOUN-CLASS SYSTEMS OF THE KORDOFANIAN LANGUAGE
GROUPS (After Stevenson R.C. 1964:82)

<u>Moro</u>	<u>Talodi- Masakin</u>	<u>Lofofa</u>	<u>Tagoi</u>	<u>(Meaning)</u>
gv (u)-	p-b-	p-,b	w-	Persons
gv (u)-	g a-, y-	g-	y-	
gv (u)-	p-b-	p-b-		
gv (u)-	k-	k-		Trees and plants
gv (u)-	o-,j-,h,d-	t-,d-	y-	Unit/
gv (u)-	a-	a-	q-	Collective
gv (u)-	k-	k-	k-	Tools and Weapons
gv (u)-	w-,l-,h-	h	a-,h-	
gv (u)-	t-, f	t-,f	t-	Long Things
gv (u)-	r-	r-	y-,q-	
gv (u)-	t-	q-py	q-	liquids

APPENDIX C

NOUN-CLASSES OF HEIBAN

(after Rev. K.J. Nobbs, of Sudan United Mission)¹

<u>No</u>	<u>Singular</u>	<u>Plural</u>	<u>Unifying idea of class</u>
1-	gw, kw	l	Personal Descriptive
2-	gw, kw	j or c	Trees
3-	g, k	j or c	
4-	l	rw	
5	dh	d	Length
6 a	ŋ	ny	
6 b	ŋ, ŋw (pl)		Mass-Liquids, Abstracts,
7	g, k	ny	Round and Deep things (and flat thin things)
8	dh	j or c	Harmful things
9-	-	li-	
10-	-	-ŋa (suffix)	Relationship and occupation

11a- Nouns beginning with vowels unchanged

11b. With initial consonants other than classes above

12 nouns derived from verb stems - abstract.

¹ - A manuscript supplied by Dr. R.C. Stevenson.

