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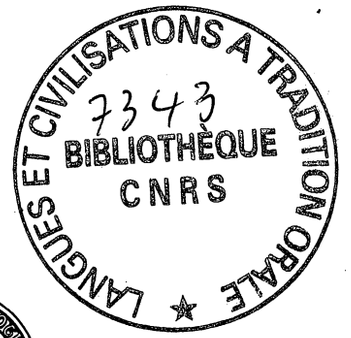
ORIENTALIA ET AFRICANA GOTHOBURGENSIA

13

# A Comparative Study of Bantu Noun Classes

by

JOUNI MAHO






ACTA UNIVERSITATIS GOTHOBURGENSIS

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## Abstract

*Author* Jouni Filip Maho
*Title* A comparative study of Bantu noun classes
*Key words* African languages, Bantu languages, Proto-Bantu, morphology, syntax, semantics, grammar, noun classes, grammatical gender, linguistic typology, comparative linguistics, dialectology, areal linguistics, historical linguistics, linguistic reconstruction

This is a typological survey of Bantu noun class (grammatical gender) systems. After two introductory chapters, the first of which introduces some theoretical preliminaries and the second of which presents the Bantu languages, there are three main chapters devoted to a linguistic overview of what Bantu noun class systems are (chapter 3), the geographical patterning of a selection of noun class related features (chapter 4) and a partial reconstruction of the noun class system in Proto-Bantu (chapter 5). Chapter 6 concludes the study.

The main objective is to achieve two goals, firstly, to describe typological variation and, secondly, to relate that variation to diachronic issues. Three main methodological approaches are pursued: structural linguistics, dialectology (areal linguistics) and historical linguistics (linguistic reconstruction).

The first goal is the concern of chapters 3 and 4. In chapter 3, the main typological features of Bantu noun class systems are discussed. This leads to the presentation of a typological matrix in which different types of noun class systems are placed in relation to each other. Chapter 4 traces the areal distribution of a selection of noun class related features and thus focuses on geographical variation.

The second goal is mainly pursued in chapters 3 and 5, but sporadically also in chapter 4. Chapter 3 concludes with a tentative diachronic model describing how Bantu noun class systems may change over time, based on the idea that animacy is a feature increasingly working itself into the noun class systems. Chapter 4 contains sporadic comments and discussions about the historical development of individual noun classes. Chapter 5 is solely devoted to diachronic issues in that the geographical patterning of features is used for reconstructive purposes. In sum, a slight revision of the conventional reconstructions is presented.

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# List of abbreviations and symbols

(See also supplementary section A.)

*Abbreviations*

| | | | |
|---|---|---|---|
| A | augment | MEP | map entry point |
| AC | adjective concord | NEG | negative |
| ANIM | animate | NP | noun prefix |
| APPL | applicative | OC | object concord |
| AUG | augmentative | PAST | past tense |
| BM (nos) | Bleek-Meinhof (numbers) | PB | Proto-Bantu |
| C | concord | PBC | Proto-Benue-Congo |
| COM | comitative | pc | personal communication |
| COND | conditional | PC | possessive concord |
| CS | common stem | PERF | perfect |
| D/A | dental/alveolar | PL, pl | plural |
| DC | demonstrative concords | PNC | Proto-Niger-Congo |
| DIM | diminutive | PRES | present tense |
| EC | enumerative concord | QC | quantitative concord |
| FUT | future tense | RC | relative concord |
| GAC | general animate concord | REC | reciprocal |
| GNP | gender-number-person | REC PAST | recent past tense |
| INAN | inanimate | REL | relative pronoun |
| INF | infinitive | SC | subject concord |
| INSTR | instrumental | SG, sg | singular |
| IPA | Int'l Phonetic Association | TMA | tense-mood-aspect |
| LOC | locative | XS | extra source |

*Symbols*

| | |
|---|---|
| N | unspecified nasal (one that adapts to its phonetic environment) |
| ø | zero-morpheme or morphological null-representation |
| ! | tonal downstep |
| = | merger of noun classes or concords (used as in '2=6' or '3C=14C') |
| ≈ | merger and/or near-merger of noun classes (used as in '4≈8') |
| ≠ | non-merged noun classes (used as in '8≠10') |
| * | reconstructed form (used as in '**lu-*') |
| ~ | variant forms/allomorphs (used as in '*ba~βa*') |
| × | ungrammatical form (used as in '×*trucksdrivers*') |

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Göteborg, October 1999
Jouni Maho

# Chapter 1

# Theoretical preliminaries

The present study is a selective typological survey of the grammatical gender systems in the sub-Saharan Bantu languages. The overall aim is to describe grammatical variation in terms of typology and geographical patterning. The secondary aim is to relate that variation to diachronic issues. Specifically, I will probe into the matters of reconstruction and language change. It should be stressed already here, however, that the relationship between language typology and language diachrony is not a straightforward one. In fact, problems are plenty. These are discussed in later chapters.

The present chapter is an introductory one and explains more specifically what I will do and what I wish to achieve. Thus I will discuss all the hands-on stuff like data and methods, as well as my aims and goals. The latter, aims and goals, are difficult to keep clearly apart from a discussion about methods; hence they are treated jointly below. Following that, there is also a section describing what others have done, that is, a brief historiographical background relating this study to some relevant predecessors (an issue that is re-addressed in the next chapter). Important terminology is introduced throughout the study wherever deemed appropriate.

## 1.1 Doing comparative typology: aims and methods

Somewhat roughly, there are five things I will do. These may collectively be referred to as the 'comparative-typological five-step'. It comprises the following:

1) the sampling of languages
2) the defining of the object under study
3) the gathering of data
4) the comparison of the data for the individual languages
5) the explaining of the results of the comparisons

This is the overall 'deep structure' of the entire study in fact, although the presentation is not strictly in that order. In the present chapter, however, they are presented and discussed in that order. Aims and goals are discussed following steps 2 and 5.

### 1.1.1 The sampling of languages (a brief note on step 1)

The Bantu languages are presented and discussed more fully in chapter 2, as is the language sample. Thus I will consider them only briefly here. Since the key issue of interest here is the variation and geographical distribution of typological features within the Bantu language group as a whole, the major concern has been to cover as much of the Bantu-speaking area as possible. Using, for instance, linguistic-genetic criteria to secure a consistent "time-depth" among the sampled languages would only be malplaced in a study like the present one. Thus a complete-ish geographical coverage has been the main target, and the inclusion of languages has been dictated only by what relevant data have been available. Hence any limits of empirical material are a consequence of the unavailability of data. Some 333 languages are included in the total language sample, almost half of which (159) are represented by full or nearly full noun class descriptions. I return to this issue in chapter 2.

As for the distinction between languages and dialects, I have made no serious effort in trying to keep them apart. Thus a language in the present study is equivalent to any speech form with a name of its own; for instance, the three dialects Chichewa, Chinyanja and Manganja are usually embraced by the name 'Chichewa'. In the present study, they are considered separate languages.

### 1.1.2 Defining the object under study (step 2)

As introduced above, this is a study of grammatical gender in Bantu languages. This particular phenomenon is formally realized in Bantu languages with different types of morphological markers, for instance, on nouns, as in the Kiswahili noun *ugonjwa* 'illness', in which we find a gender marker *u-* prefixed on a noun stem *-gonjwa*.[1]

| *ugonjwa* | = | *u* | + | *gonjwa* |
|---|---|---|---|---|
| | | ↑ | | ↑ |
| | | gender marker | | noun stem |

There are usually different prefixes appearing on singular and plural nouns, so that

1 The Kiswahili data used in this chapter derives mainly from Lodhi & Otterbrandt (1987) and Perrott (1957).



the plural form of *ugonjwa* is *magonjwa*, with a prefix *ma-* (instead of *u-*).

| *magonjwa* | = | *ma* | + | *gonjwa* |
|---|---|---|---|---|

Another noun belonging to a different gender would require different prefixes. For instance, the singular noun *mti* 'tree' has a prefix *m-*, while its plural counterpart, *miti*, displays a prefix *mi-*.

| *mti* | = | *m* | + | *ti* |
|---|---|---|---|---|
| *miti* | = | *mi* | + | *ti* |

Each of the just-exemplified prefixes represents a so-called noun class and these usually group into singular/plural pairings.[2] Some noun classes occur in several pairings, while others do not pair at all; the latter concern mainly uncountables, such as mass nouns and infinitives. Non-paired classes are usually referred to as 'single classes'. Most Bantu languages exhibit about 15 or 16 distinct noun classes, and these normally group into 10 or more pairings. A handful of languages in the northern Bantu area have considerably fewer noun classes than that, and they are best regarded as languages with highly reduced or simplified systems. I return to these in chapter 3.

Sometimes each noun class is referred to as a gender, although most often the pairings are referred to as such. With reference to the above-used Kiswahili examples, we could talk of the u-gender, the ma-gender, and so on, or we could talk of the u/ma-gender, the m/mi-gender, and so on. For simplicity, I do neither. One factor involved in this choice is that the term '(grammatical) gender' has at least two different meanings.[3] Gender can be thought of as a grammatical category, as in "German is a gender language", but it can also be thought of as specific instantiations of that grammatical category, as in "German has three genders: feminine, masculine and neuter". In order to preserve some kind of terminological clarity, I use 'gender' in the former sense only and retain the traditional terms 'noun class' and 'noun class pairing' in as many contexts as possible. There are other reasons for maintaining the traditional terminology but I will return to this issue at the end of chapter 3.

Bantu noun classes are traditionally referred to with a numbering system originally devised and used by Wilhelm Bleek (1851; 1869). This was later amended by Carl Meinhof (1899; 1932), as well as others. Thus it is sometimes

2 Not all people agree that Bantu noun class pairings mark a singular/plural distinction; see Mufwene (1980b) and, more recently, Amidu (1997). I partly agree with these authors and return to this issue in chapter 3.

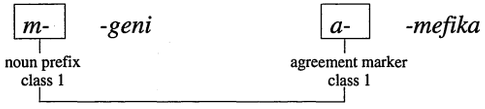
3 A comprehensive and well-balanced monograph on grammatical gender has been written by Corbett (1991).

known as the 'Bleek-Meinhof system'. The numbers are here referred to simply as 'BM numbers'. The main advantage of the BM numbers is their powerful utility in comparative studies. Ideally, a noun class labelled '7' in one language equals etymologically classes labelled '7' in other Bantu languages. Thus we can safely assume that the nominal prefix of class 7 in Kiswahili (which is *ki-*) is cognate with the corresponding class 7 prefixes in Setswana (*se-*) and Lwena (*chi-*). However, this presupposes that the assigning of BM numbers in each individual Bantu language is a straightforward process. This is not always so, as we will see in chapters 3 and 4. Presently, however, we may brush aside this disturbing fact.

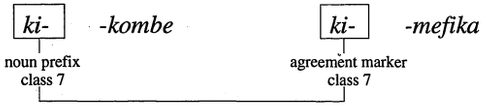
In addition to prefixes occurring on nouns, there is also a system of agreement markers occurring in and outside noun phrases, examples of which can be seen in the table in figure 1. For instance, in the Kiswahili phrase *kisu kirefu* 'a long knife' the adjective stem *-refu* 'long' is prefixed with a marker *ki-* agreeing with the noun class of *kisu* 'knife' (class 7).




Verb phrases include agreement markers indicating the noun class belonging of the grammatical subject (and occasionally one or several of the grammatical objects also), as in *mgeni amefika* 'the visitor has arrived'. Here the verbal stem *-mefika* (in which the *-me-* is a perfect tense marker) is prefixed with a subject marker *a-* of class 1 agreeing with the noun class of *mgeni* (which is class 1).




Had the subject been, say, *kikombe* 'cup' which belongs to class 7, the subject marker on the verb would have been different, namely, *ki-* (class 7), as in *kikombe kimefika* 'the cup has arrived'.




In Bantu linguistics, the agreement markers are usually referred to as 'concordial elements', or simply 'concords', a term that will be used here too. The main



| PAIRINGS AND NOUN PREFIXES | | CONCORDS ON ADJECTIVES | & VERBS | EXAMPLES WITH UNDERLINED PREFIXES AND CONCORDS |
|---|---|---|---|---|
| **1/2** | m- (1) | m- | a- | *mtu mrefu anatosha*<br>'a long person is enough' |
| | wa- (2) | wa- | wa- | *watu wawili wanatosha*<br>'two persons are enough' |
| **3/4** | m- (3) | m- | u- | *mti mkuukuu unatosha*<br>'an old tree is enough' |
| | mi- (4) | mi- | i- | *miti mikuukuu mitatu inatosha*<br>'three old trees are enough' |
| **5/6** | ji- (5) | (ji)- | li- | *jicho jema (ji)moja linatosha*<br>'one good eye is enough' |
| | ma- (6) | ma- | ya- | *macho mema mawili yanatosha*<br>'two good eyes are enough' |
| **7/8** | ki- (7) | ki- | ki- | *kisu kirefu kinatosha*<br>'a long knife is enough' |
| | vi- (8) | vi- | vi- | *visu virefu vinatosha*<br>'long knives are enough' |
| **9/10** | N- (9) | (N)- | i- | *nyumba ndogo inatosha*<br>'a small house is enough' |
| | N- (10) | (N)- | zi- | *nyumba ndogo zinatosha*<br>'small houses are enough' |
| **11=14/6** | u- (11=14) | m- | u- | *ugonjwa mkali unatosha*<br>'a severe illness is enough' |
| | ma- (6) | ma- | ya- | *magonjwa makali mawili yanatosha*<br>'two severe illnesses are enough' |

Figure 1 A selection of noun class pairings in Kiswahili
The 11=14 merger may be contested for Kiswahili (see comments in supplementary section A).

usefulness of retaining the traditional terminology, especially with reference to the verbal concords, is that the grammatical phenomenon called 'agreement' is not sufficient to explain their use, and thus calling them 'agreement markers' would be somewhat wrong. There is much more to be said about concords, but I leave this to chapter 3.

The noun classes found in present-day Bantu languages are presumed to have derived from an original Proto-Bantu noun class system, which is customarily said to have consisted of 19 or more noun classes (see more on this in chapters 3 and 5). During the course of time, there have been several changes in this original noun

class system, so that there is now much variation when comparing modern Bantu languages. This also means that when we look at individual noun class systems we must postulate a number of changes to have occurred since Proto-Bantu times. In Kiswahili, for instance, classes 12 and 13 are completely lacking, and the original noun classes 11 and 14 are assumed to have merged.[4] The merger is notated '11=14' here.

Some languages have undergone more changes than others, which has resulted in quite complex notations. In Myɛnɛ, for instance, we find the postulated pairing 1=3=11=14/10=19 (Jacquot 1983: 38). There are also languages that have lost most or all noun classes, like Mbati which exhibits two classes marking grammatical number only (Richardson 1957: 39f). While singular nouns are unmarked, plural nouns are marked with a prefix *ɓa-*. One could, of course, notate this by way of assuming massive mergers, say, 1=3=5=7=9=11=12 for the singular zero-prefix and 2=4=6=8=10=13 for the plural one. I will not do this. Instead, I have decided to make the notation of mergers dependent on my sources, which means that unless there is an explicit mention of a certain merger it is not noted.[5] Thus noun classes not mentioned are simply lacking in such languages. I return to this more fully in chapter 4.

There is not always a one-to-one correspondence between the set of noun prefixes and the set of concords; that is, each and every noun class in any given language is not necessarily associated with a unique set of concords.

| NOUN CLASS | NOUN PREFIX | ADJECTIVE CONCORD | NUMERAL CONCORD | POSSESSIVE CONCORD | SUBJECT CONCORD |
|---|---|---|---|---|---|
| 3 | *mu-* | *(wa)u-* | *u-* | *wa-* | *u-* |
| 14 | *u-* | *(wa)u-* | *u-* | *wa-* | *u-* |

Figure 2 A selection of concords in Lwena (White 1949)

If we look more closely at the various series of concords in Lwena (which are tabulated in figure 2), we can see that the concords associated with the noun prefixes of classes 3 and 14 are in fact identical, a phenomenon that keeps recurring in many Bantu languages. This type of merger is notated '3C=14C' here, and it means that the concords associated with noun prefixes of classes 3 and 14 are identical.[6] An alternative notation used in some maps is '3+14C', meaning that the noun prefix of noun class 3 is associated with concords that are identical to those associated with the noun prefix of class 14. Thus '14+3C' means basically the same thing. This particular concord merger (or near-merger) is also found in, for instance, Kamba, where there is also a full 11=14 merger, so that for Kamba the proper notation is '3+11=14C' or '11=14+3C' depending on the noun class dealt with.

4 This particular merger is contested by some Kiswahili scholars, like Amidu (1997: 79ff); see comments in supplementary section A and the discussion of 11=14 mergers in chapter 4.

5 With some reservations, I must hasten to add. See further below, when discussing data gathering.



### 1.1.3 Narrowing the scope and setting the first goal

There are two basic goals with the present study, both of which have already been alluded to above. The first goal is to present a coherent description of the typological variation with regard to Bantu noun class systems (which is the main subject of chapters 3 and 4). The range of typological variation within the Bantu language group is often underestimated in that individual Bantu languages are taken as exemplars of the entire Bantu group. There are indeed many similarities, depending on the level of analysis, but not to the extent that a single language can represent the whole range of typological variation. Thus there is good reason to set the first goal. The second goal is to relate patterns of typological variation to a diachronic and historical setting (which is the main subject of chapter 5). In the present section I will only concern myself with the first goal. The second goal is discussed further below.

There are of course many ways in which typological variation with regard to Bantu noun class features can be dicussed and shown. Since an exhaustive study would require more money, time and energy than I have had at my disposal, I have been forced to narrow down the scope a bit. Thus by necessity, this is not an exhaustive study of Bantu noun class systems. The level of analysis, in terms of linguistic structure, is difficult to pinpoint exactly. The chapters below include phonological, morphological, syntactic as well as semantic analyses, so possibly a conglomerate term could be used, but the fairly noncommittal 'grammar' (or perhaps 'structural typology') seems to be the simplest choice. Specifically, what I will be looking for is what noun classes and noun class pairings are present in what languages, what grammatical and/or semantic functions they are used for, as well as other related issues. This is the main subject of chapter 3. There I will try to explicate the major typological characteristics of Bantu noun class systems, what they look like and how they work.

The typological variation is to a large extent presented and discussed by way

6 The term 'merger' does not imply a previous phonological change, at least not by necessity. In morphological theory the more oft-used term is 'syncretism' (see Matthews 1991: 27f; Spencer 1991: 194f) but I find 'merger' more transparent.

of marrying linguistics and geography, so to speak. That is, information about various noun class features is plotted into maps, at least where I have been able to gather enough data to make it interesting. These maps serve as graphic representations of typological variation, and as such they (can) form illustrative bases for discussion and drawing conclusions about various issues. In particular, the maps serve to identify what are here termed '(typological) coherence areas'. A coherence area is an area which is typologically uniform with regard to a selected linguistic feature. The term 'coherence area' is used here in replacement of the more familiar 'linguistic area', 'convergence area' and others. The latter term is, or can be, misleading in that it implies a dynamic process leading towards similarities, that is, convergence (in the literal sense). The standardized use of the former term also implies this. Any typological coherence within any particular area could in fact be the result of common retention, rather than convergence, in which case the attribute 'convergence' is really not correct. From this perspective, 'coherence area' is the more general term and convergence areas are best seen as subtypes of coherence areas. I continue this discussion in chapter 4.

### 1.1.4 Gathering the data (step 3)

The main body of the data is culled from published sources, which include language-descriptive material as well as other comparative studies. The initial sources have been Guthrie (1971) and Kadima (1969), in that order, both of which are major comparative studies of Bantu languages. These have been supplemented with information from grammar descriptions and dictionaries. The latter sources are referred to simply as 'extra sources' (abbreviated 'XS'), and they are listed in supplementary section A, where also the main body of the data can be found together with annotations and commentaries.

One particular advantage of using published sources is that the object under study (Bantu noun classes) is already identified by the various authors. In fact, the relevant data are more or less offered on a silver plate, under a special heading titled 'noun classes', 'nominal morphology', or the like, so the culling of data has sometimes been less of a pain. However, the data are not seldom offered incomplete, described within an obsolete framework, or simply inaccurate.

Some sources do not employ BM numbers to identify noun classes. Usually this applies to old sources such as the Bobangi grammar by Whitehead (1899), but there are also modern works falling into this category, for instance, Fisch's (1977) Thimbukushu grammar and Hullquist's (1988) Chichewa grammar. Usually such grammars identify the various noun classes according to noun prefixes, for instance, the ma-class, the u-class, and so forth. In such cases I have been forced to do the BM numbering for them, which has sometimes been done with the help of additional extra sources.



Other sources use obsolete and/or idiosyncratic BM numbering systems, such as Ittmann's (1939) Duala grammar and Jacquot's (1967) Laadi grammar, in which cases I have been forced to re-label some classes. The most oft-occurring obsolete labelling concerns classes 12 and 13, which are labelled 13 and 12 respectively in some works. The obsolete numbering order derives from Bleek (1869). It has since then been changed (see more on this in chapter 5).

Some sources have clearly misidentified some noun classes. Where I have gathered sufficient arguments to make reinterpretations, I have done so. This concerns, for instance, the existence of classes 8 and 10 in some South African Bantu languages, and the existence of class 15 in some languages of the north-western Bantu area.

For some languages, I have used several sources. Often these are consistent with each other, but when they are not I have resolved conflicts of data in the best way possible. All such resolutions as well as all deviations from facts stated by my sources are duly noted and explained in supplementary section A.

One disadvantage with using printed sources is that the analyses offered thereby constitute a kind of synthesis of linguistic facts as they exist in the literature rather than "out there", that is, a synthesis of already synthesized analyses. Thus their relationship to actual linguistic facts as they might occur in reality is dependent on the quality of the sources used. That this is an important aspect to keep in mind will be made evident in the chapters to follow.

A second disadvantage is that some printed sources do not provide all the necessary details. Actually, fragmentary data are something that all sampled languages, to varying degrees, are affected by. Different grammarians write for different audiences, for different purposes, and with differences in background as well as skill. This makes it sometimes difficult to elucidate all the relevant data for all languages, for which reason there are gaps in the material. However, the material at hand is still sufficient for comparative work, indeed even more so than I have been able to include here.

Due the nature of the sources, there is a slight temporal skewing in the material, that is, different sources stem from different time periods. The oldest material comes from Whitehead's Bobangi grammar published in 1899 and the latest source used is Mchombo's overview of Chichewa published in 1998. While individual language descriptions have been easy to date, much of the data culled from the comparative studies by Kadima (1969) and Guthrie (1971), which contain hardly any references to their respective sources, has therefore been impossible to date. Nevertheless, an attested hundred-year span seems acceptable for a

comparative study of this kind.

Another type of skewing that is more serious than the temporal one is what might be labelled the 'factor of standardization'. For instance, Otjiherero is often divided into four main dialect areas: North-Western Otjiherero, Central Otjiherero and Eastern Otjiherero (= Otjimbanderu) in Namibia, and Botswana Otjiherero. It is the Central Otjiherero dialect that has provided the basis for the current standardization, and also for most descriptive works. Specifically with regard to the eastern dialect Otjimbanderu, "[o]nly 80 years ago, the phonological system, the pattern of class prefixes, and the subordination of concepts to classes ... differed considerably [from the Central Otjiherero dialect]" (Ohly 1988: 19). For instance, while the word for 'bow-string' is classified in noun class 3 (*omuko*) in Central Otjiherero, it is classified in noun class 5 (*ephuko*) in Otjimbanderu. Similarly, the word for 'cattle' is in Central Otjiherero *ozongombe* (class 10), but *omakhophe* (class 6) in Otjimbanderu. Since the standardization of Otjiherero, however, "the dialect distance between these two dialects has almost ceased to exist" (idem: 21), so that today the differences are mainly prosodic and lexical. It seems somewhat unclear how extensive the grammatical differences may have been, but the basic implication is nonetheless that standardization has a tendency to create pan-dialectal grammars that can obscure true linguistic variation.[7]

Another case in point concerns the South African Bantu languages. There are nine officially recognized Bantu languages in South Africa: Tshivenda, Setswana, Northern Sotho, Sesotho, Isixhosa, Isizulu, Siswati, Sindebele and Xitsonga. All of these have standardized spellings and grammatical descriptions. Usually linguistic surveys of South Africa include only these, but there are Bantu dialects/languages in South Africa that differ quite extensively from any of these (see, for instance, Doke 1954). These other dialects are usually embraced by one or other of the officially recognized languages, so they tend to "disappear" in language surveys.

There is unfortunately not much I have been able to do to counter the factor of standardization. In the case of the South African languages, I have added one non-standardized dialect (or language), Pai, to the sample since Doke (1954) provides a fairly good description of its noun classes. Other than that, it is difficult to counter any levelling effects without engaging in massive field work.

Whenever linguistic data occur in tabular form in the chapters below, the sources used are the same as those given for the individual languages in supplementary section A, unless explicitly stated otherwise. Most of the linguistic examples (especially in chapter 3) are presented in a standard linguistic format

[7] Janda (1982: 161) makes a very relevant point when he says that "linguistic descriptions should eschew the practice of constructing pan-dialectal grammars, on the one hand, and the practice of citing forms from one dialect as evidence for some particular analysis of another dialect, on the other hand, since both of these methods can have, ultimately, only a Procrustean effect."



generally known as 'interlinearization'. Different authors use different variations of this. The one that I will be using is a four-line version which can be schematically represented as follows:

1. *linguistic example* — language (source)
2. segmentation
3. analysis
4. translation in English

Thus, for instance, the Kiswahili noun *mti* 'tree' exemplified above would be rendered as follows:

*mti* — Kiswahili (Perrott 1957: 10)
m ti
NP.3 tree
'tree'

Occasionally I use sources written in some other language than English, in which case that particular language will appear in the third (analysis) line,[8] with an English translation appearing in the fourth line. Note also that whenever several consecutive examples are taken from the same source and refer to the same language, I will not repeat the language name and the source reference in every example. Thus, when that information is missing, the data from previous example(s) apply.

Moreover, all linguistic examples are given in the orthographical conventions used by my sources; that is, I have not tried to re-transcribe them into any consistent orthography since phonology/phonetics is not at issue.[9] Whenever it is important to note sound distinctions, I use the orthographical conventions set by the International Phonetic Association (IPA); see, for instance, Ladefoged & Maddieson (1995).

### 1.1.5 Comparing languages and explaining patterns (steps 4 and 5)

Croft (1995: 86f) identifies three uses for the word 'typology' in linguistics. He

[8] This is accompanied with an abbreviation indicating the original source-language: "Afr." for Afrikaans, "Fr." for French, "Ger." for German, "Ital." for Italian, "Port." for Portuguese, and "Swed." for Swedish. These abbreviations also occur in the running text, together with translations given in other languages than English.

[9] There are a few minor deviations from this source-based orthography principle. For technical reasons, the character < a > appears as < *a* > in italicized text, and < g > appears as < *g* >. Moreover, the so-called close vowels in Bantu are by many authors rendered with a hook (cedilla) below the vowel characters. Again for technical reasons, these hooks are replaced here with acute accents, as in < *j* >.

paraphrases these as 'typological classification', 'typological generalization' and '(functional-)typological approach'. Taken together, they "can be thought of as representing three essential stages in scientific analysis: the classification of the phenomenon being studied, the formulation of generalizations over the data and the explanation of those generalizations respectively" (idem: 87). The comparative-typological five-step given above is essentially an extension of this.

Typological classification is simply the classification of languages according to typological features, as in "Swedish is an SVO language". It is a necessary pre-stage to the actual comparison. Before you can compare two or more languages with regard to a certain specified typological feature, you need to identify that particular feature in each individual language first. This may, perhaps somewhat crudely, be equated with the data gathering (step 3) described above.

Typological generalization is the establishing of typological patterns across languages. This corresponds to step 4 of the comparative-typological five-step, and is in fact an effectuation of the first goal set above (describing typological variation). Greenberg's (1966b) study of word/morpheme order typology in the world's languages, in which he establishes a number of universals of different kinds, is a classical exemplar of typological generalization. The generalizations that I will offer, however, are slightly different in that I aim to establish cross-linguistic patterns within a genetically related group of languages, for instance, by establishing typological coherence areas. Thus I make no claims about universals.

The typological approach to language studies refers to the explaining, tentative or not, of typological patterns in terms of, say, cognition, anatomy, social factors or something else. The tentative explanations that I offer are mainly dressed in diachronic and historical terms. This corresponds to step 5 in the comparative-typological five-step and is at the same time an effectuation of the second goal of the present study, which is the subject of the next subsection.

### 1.1.6 Setting the second goal (more on step 5)

The second goal (relating typological variation to language diachrony and history) consists of two major sub-goals, both of which are fairly speculative in relation to the first goal set above (describing the range of typological variation).

The major theme underlying the first sub-goal focuses on the dynamics of language change. This will, however, be dealt with only briefly. The idea is to discuss some of the more obvious geographical patternings in terms of how and why they may have come about. Thus it touches on issues like the diffusion of typological features, centres of origins, language contact, movements and migrations, and so on. This discussion concludes chapter 4.



The second sub-goal will be dealt with in more detail, and is the subject of chapter 5. It comprises a reconstruction of the noun class system of Proto-Bantu, the putative proto-language of all Bantu languages, or at least some of its possible features. This has already been done by, in particular, Meeussen (1967) and Guthrie (1967b/1971; 1970). However, the distributional data regarding Bantu noun class systems (as presented in chapters 3 and 4 of this study) provide us with new insights into this particular issue.

Both sub-goals require a range of additional discussions about method besides the basic comparative-typological five-step. This I return to in chapters 4 and 5.

## 1.2 A short historiographical background

There are several previous studies dealing with Bantu noun classes, or studies including discussions of Bantu noun classes as part of wider a research focus, and which are thereby directly related to the present study. Most such studies have focused only on a handful of languages. There are, however, some that contain data from a wide variety of Bantu languages, and these in particular merit special mention.

I will not go into too much historiographical detail here. I will mainly concern myself with those works that have been of major relevance for the present study. These comprise mostly modern twentieth-century works, but a few noteworthy pre-twentieth-century studies are initially mentioned (while others are discussed in chapter 2).

### 1.2.1 Noteworthy early studies

The subject matter of the present study, that is, Bantu noun classes, was first described in a Kikongo grammar titled *Regulae quædam pro difficillimi congensium idiomatis faciliori captu ad grammaticae normam redactæ*,[10] published in 1659 by the Italian Capuchin priest Hyacintho Brusciotto à Vetralla. "[H]e coined the term 'principiationes' to indicate the categories into which the nouns fell, according to their first element ... [but] his division into principiations is made according to concord ... and not noun prefix" (Doke 1959b: 117). More particularly, Brusciotto classified nouns according to the form of concordial elements appearing in possessive constructions.

The first major comparative study including Bantu noun classes was presented by the German philologist Wilhelm Bleek in the (unfinished) *A*

[10] The title of the book translates as 'Some rules for the more easy understanding of the most difficult idiom of the people of the Congo, brought into the form of a grammar' (Doke 1959b: 116).

*comparative grammar of South African languages* (1862; 1869), in which Isixhosa was compared with twenty-odd other Bantu languages. He came to many important conclusions about the structure and classification of Bantu languages (see Doke 1960b: 81; see also chapter 2 below). For specific relevance to the present study, Bleek was the first to reconstruct a noun class system for what he called 'Ancient Bantu'. It consisted of 18 noun classes numbered 1 to 18 in what is now the Bleek-Meinhof numbering system (which was explained above). With a few modifications, it has provided the basis for comparative Bantu studies ever since. In fact, Bleek's entire comparative grammar "is still of immense value to students of Comparative Bantu" (idem).

The Jesuit Father Julius Torrend later published his *Comparative grammar of South-African Bantu languages* (1891), which is a comparative study similar to Bleek's but based on Gitonga. It covers several levels of linguistic analyses, namely, phonetics/phonology, lexicon, etymology and grammar. "This is a large and comprehensive study, embracing a good deal more of Bantu morphological structures than Bleek had covered" (Cole 1971: 10). However, "[w]hile a rich and extensive treatment, it is a work that suffers from more than its share of idiosyncracies" (Hamp 1970: 276), particularly with regard to its fanciful and inaccurate etymological statements (see also Guthrie 1971: 112). Moreover, Torrend "developed some strange convictions regarding Bantu. One was that the correct order of the Bantu noun classes tallied with the 'days of creation' " (Doke 1960b: 85), an idea that apparently kept his mind busy for the better part of his career.

The next important step in comparative Bantu studies includes two works by the renowned German philologist Carl Meinhof, namely, *Grundriß einer Lautlehre der Bantu-Sprachen* (1899; revised 1910; revised and translated to English 1932) and *Grundzüge einer vergleichenden Grammatik der Bantusprachen* (1906; revised 1948). Both studies were attempts at reconstructing the properties of a presumed proto-language that he called 'Ur-Bantu'. The grammatical reconstruction, which contains a wealth of data for many Bantu languages, has not survived the test of time (see also Greenberg 1951). His phonological reconstruction, however, is still regarded as standard reading in comparative Bantu studies. The first edition (1899) includes detailed studies of Northern Sotho, Kiswahili, Otjiherero, Duala, Nyekyosa (called 'Konde' by Meinhof) and Sango. The more widely accessible translated edition from 1932 excludes Duala, Otjiherero and Sango, while including Isizulu and Kikongo. It also contains many reconstructed roots for Ur-Bantu, which are still considered fairly valid (see Cole 1971: 11). He also reconstructed a noun class system for Ur-Bantu, thereby



revising Bleek's earlier one. It is still oft-cited and used as reference (see more on this in chapter 5).

### 1.2.2 Modern comparative studies of Bantu noun classes

A major comparative study of relevance for the present study is Malcolm Guthrie's four-volume *Comparative Bantu* (1967b/1971; 1970), which at a first glance seems very complete. It is the synthesis of many years' research and contains a wealth of data with the main focus being on comparisons of various lexemes and morphemes. Guthrie work is like a big dictionary, rather than an explanatory grammar, but as such it contains plentiful information about the phonology and morphology in a multitude of Bantu languages. Occasionally, however, it fails also in its encyclopaedic endeavours. In particular, the coverage is somewhat fragmentary, with some languages being described in more detail than others. Still, much of the data used in the present study is drawn from Guthrie's work, especially the second volume of his *Comparative Bantu*. Thus references to Guthrie are abundant below.

Marcel Kadima's doctoral dissertation *Le système des classes en bantou* (1969) is one of the few comparative studies focusing specifically on noun classes and at the same time aiming to cover the entire Bantu area. It is also the study most obviously related to the present one. Kadima's study deals chiefly with the phonology of noun class prefixes and their derivation from Proto-Bantu. However, Kadima's coverage too seems somewhat fragmentary, but his many descriptions of individual noun classes and noun class affixes have proven highly useful as an additional data source for languages that would otherwise have been left out. Many of his conclusions are also relevant and discussed in later chapters.

Irina Toporova's "Correlation of classes in the Bantu languages" (1987) is another important study related to the present one. However, it is written in Russian and has unfortunately therefore been inaccessible to me. But there is a recent publication titled "Typology and Bantu noun classes" (1997) which constitutes the paper version of a keynote lecture given at the *First World Congress of African Linguistics* held at Kwaluseni in Swaziland, July 1994. Her main focus is on typological characteristics of Bantu noun classes systems. In fact, she discusses many of the issues that I take up below.

There are other comparative studies that directly or indirectly deal with Bantu noun classes and which therefore merit brief mention (see also chapter 2). Among those studies that deal with empirical material drawn from the whole of the Bantu area we find, for instance, Meinhof's (1948) reconstruction of the morphological properties of Proto-Bantu, Růžička's (1956; 1959; 1960) studies of locatives and

infinitives, Meeussen's (1967) reconstruction of the grammar of Proto-Bantu, De Blois's (1970) study of augments, Creider & Denny's (1975) reconstruction of the semantics of the Proto-Bantu noun class system (slightly revised by Denny & Creider 1986), Bastin's (1980; 1983) dialectological surveys of various phonological and grammatical features, Polak's (1986) study of object concords, Hendrikse & Poulos's (1992) analysis of the semantics of some Bantu noun class systems, and of course Guthrie's many publications (see bibliography for a selection). There are many more studies of Bantu noun classes, many of which focus only on single languages.

Studies specifically focusing on the way Bantu noun class systems change include, for instance, Richardson (1967), Alexandre (1967), Givón (1971), Okhotina (1975), Wald (1975), Stucky (1978), Herbert (1985; 1991) and Bokamba (1988; 1993). To the best of my knowledge, none of them use data from the whole of the Bantu area. Most studies deal with Kituba, Lingala, Kiswahili, and only occasionally other languages, like the Bantu languages of Ngamiland, Botswana; studied by Vossen (1991/1992). To these could be added studies dealing with child language acquisition, so-called ontogenetic studies. Most known to me deal with southern Bantu languages, like Siswati (Kunene 1979; 1986), Sesotho (Demuth 1983; 1988; Connelly 1984), Setswana (Tsonope 1987; 1991/1992) and Isizulu (Suzman 1982; 1991); see also Demuth, Faraclas & Marchese (1986) and Herbert (1991) for comparative discussions based on the studies just referred to. Idiata (1998) discusses language acquisition in Sangu, a north-western Bantu language. Second language acquisition is studied by Orr (1987), who focuses on Malawian Chichewa.

The present study relies heavily on the above-mentioned ones, as well as the many language-specific grammars and dictionaries listed in supplementary section A. The most obvious relation is with Kadima's (1969) major survey and study of Bantu noun class morphemes. In fact, the present study may in more than one way be seen as some kind of continuation of his study. I have sought to fill Kadima's empirical lacunas, and while Kadima focuses on phonology and reconstruction, my study is primarily concerned with grammatical categories and areal linguistics (or rather, dialectology) as well as reconstruction.

## 1.3 A brief overview of remaining chapters

Following this preliminary chapter, chapter 2 includes a general overview and presentation of the Bantu languages, in terms of both demography and linguistic-genetic classification. It also includes a description of the language sample. Thus



both chapters 1 and 2 are introductory to the rest, specifically chapters 3, 4, and 5, which constitute the conceptual bulk of the study.

Chapters 3 and 4 aim to describe the range of typological variation with regard to Bantu noun class systems. The discussion in chapter 3 is organized so as to provide a general overview of the grammatical typology of Bantu noun class systems, that is, their structure, function and use. Chapter 4 is an expansion of issues treated in chapter 3 in that it traces the geographical distribution of a number of selected features. The methodological approach in chapter 4 is basically that of the dialectologist. Chapter 5 tries to reconstruct some of the properties of a putative Proto-Bantu noun class system. The discussion is mainly based on implications that can be drawn from the distributional data discussed in preceding chapters. Chapter 6 completes the study by summarizing and concluding previous chapters.

To this, there are two supplementary sections. The first (A) contains the bulk of the collected noun class data, which are presented individually for each Bantu language. The second (B) provides a description of how the diagrammatic map used in this study has come about, together with some justifications for why it looks the way it looks. Bibliography and index follow last.

# Chapter 2

# The Bantu languages: an overview

Probably the most well-known Bantu language is Kiswahili. Other Bantu languages known to common man and woman outside Africa include Kikongo, Isizulu, Setswana, Otjiherero and Chishona.[11] Probably also Isixhosa has gained some international fame in recent times, being Nelson Mandela's mother tongue. However, the Bantu languages are many more than the ones just mentioned. The present chapter aims to present the Bantu languages in terms of demography and linguistic classification. Also included is a description of the language sample, that is, the languages used in the present study, criteria for their choice, and so forth.

## 2.1 Where to find them and how to address them

### 2.1.1 Some demographic data

The Bantu languages are spoken in an area that covers approximately nine million square kilometres, which is roughly the same size as China or the United States (see the map in figure 3). The total number of Bantu languages is difficult to calculate. Various estimations exist, most of which pend roughly between 300 and 600 (see Hinnebusch 1989: 450f). Distinguishing languages from dialects is of course one problem, but perhaps the most important difficulty derives from the fact that even though Bantu languages have been studied and described for more than 300 years (recall Brusciotto's grammar from 1659 mentioned in chapter 1), we still know very little of the linguistics and the demography of many Bantu-speaking areas. Still, a definite number of the Bantu languages is not really relevant for the present study, so the above-mentioned range of 300 to 600 can serve as a handy estimate. What is of importance is the total number of languages used in the

[11] These languages are perhaps better recognized by the following names: Swahili, Kongo, Zulu, Tswana, Herero and Shona. See under "A note on Bantu language names" below for a discussion about the difference.



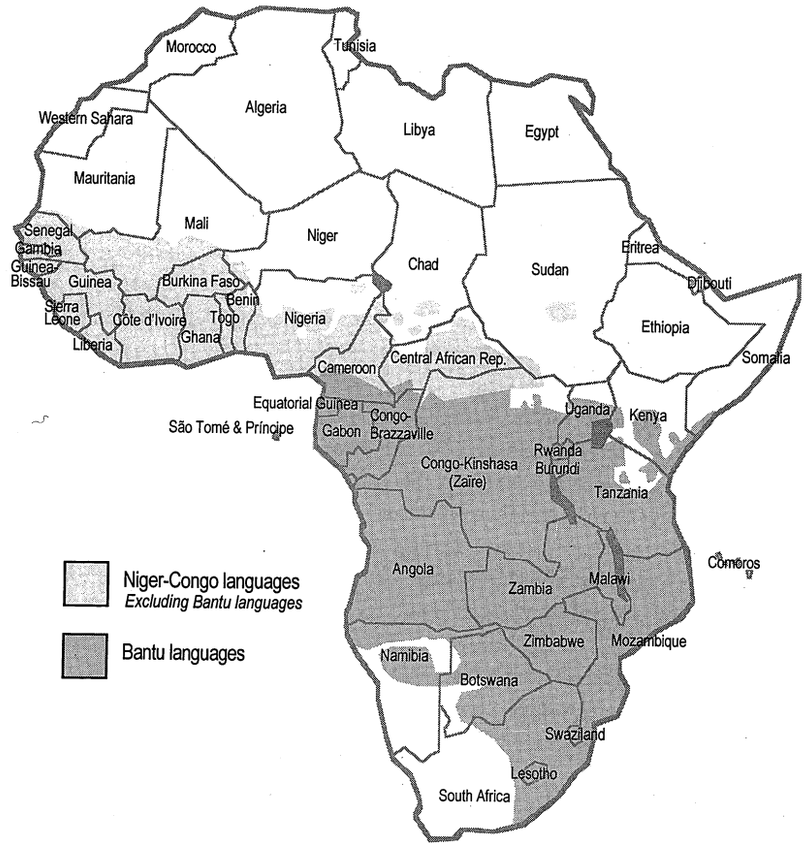



Figure 3 Approximate distribution of the Bantu languages
Cape Verde Islands, Madagascar, Mauritius and Seychelles excluded from map.

| TOP-TEN BANTU LANGUAGES | | TOP-TEN BANTU MOTHER TONGUES | |
|---|---|---|---|
| Kiswahili | 30.0 million | Kinyarwanda | 9.3 million |
| Kinyarwanda | 9.3 million | Isizulu | 9.1 million |
| Isizulu | 9.1 million | Chishona | 8.3 million |
| Lingala | 8.4 million | Isixhosa | 6.9 million |
| Chishona | 8.3 million | Luba-Kasai | 6.3 million |
| Isixhosa | 6.9 million | Kirundi | 6.0 million |
| Luba-Kasai | 6.3 million | Kikuyu | 5.4 million |
| Kirundi | 6.0 million | Kiswahili | 5.0 million |
| Kikuyu | 5.4 million | Chinyanja/Chichewa | 5.0 million |
| Chinyanja/Chichewa, Kituba and Kesukuma | 5.0 million *each* | Kesukuma | 5.0 million |

Figure 4 Two top-ten lists of the most spoken Bantu languages
The figures are extracted from the *Ethnologue* (Grimes 1996) and should be read as approximations only.

present study, which amounts to 333. Of these, 159 are represented by fairly complete and reliable data regarding their noun class systems, the others being represented only by fragmentary information, something that a quick browse through the data in supplementary section A makes clear. I return to a discussion about the language sample further below.

The total number of Bantu-speakers is also difficult to estimate, but a general estimate between 150 and 200 million people should not be too far off. The Bantu language with the largest number of speakers is undoubtedly Kiswahili, which is spoken by approximately 30 million people all over eastern Africa. Most of these, however, are second language users, so the number of mother-tongue speakers of Kiswahili is considerably lower, circa 5 million people. The Bantu languages with the largest number of mother-tongue speakers are Kinyarwanda and Isizulu, both with over 9 million speakers (see data in figure 4).

The ten most spoken Bantu mother tongues comprise approximately 66 million speakers in toto. Adding ten more languages, we get a top-twenty list comprising languages spoken by about 104 million people; the additions being Mɔngɔ and Nkundo (jointly 4.9 million), Kikongo (4.7 million), Kituba (4.2 million), Sesotho (4.2 million), Setswana (3.9 million), Northern Sotho (3.9 million), Xitsonga (3.2 million), Luhya (3.1 million), Luganda (3.0 million) and Kimbundu (3.0 million). Evidently, the majority of the 300-600 Bantu languages are spoken by fairly small groups of people, like Holu, which is spoken by 12,000



people in northern Angola and western Congo-Kinshasa (Grimes 1996: 162), and Kahe, spoken by a mere 2,700 people in north-easternTanzania (idem: 392).

### 2.1.2 A note on Bantu language names

When referring to individual Bantu languages, one immediately stumbles on certain problems involved in choosing a suitable name form. One could of course circumvent the problem of a name choice by using a code system like the one devised and employed by Guthrie (1948; 1967b/1971; 1970), so that instead of talking about, say, 'Kiswahili', one would simply refer to it as 'G42'.[12] Such a stylistic choice seems an utterly clumsy one in my view and thus I use the full names instead. However, this leaves me with a few problems of name choice.

An oft-noted problem concerns whether or not to use prefixes. Thus one can choose between, for instance, 'Isizulu' in which there is a prefix *isi-* and 'Zulu' without it. Prefixless forms are undeniably the most familiar in the literature. However, I have not tried to be consistent in this respect. Some names appear with prefixes, others do not. Generally I have adopted the name form used by any given source but there are some exceptions to this; for instance, standardized names are used whenever possible. Thus Setswana is not referred to as 'Tswana' even though my source (Cole 1955/1975), which pre-dates the standardization, does so.

Sometimes the choice of language name has necessarily been an arbitrary one, especially where different sources use different names. For instance, what Guthrie (1971: 30) calls 'Mbo (cluster)' is named 'Manenguba' by Hedinger (1987). In this particular case, I have used the latter name since the latter source is my main source for this language. Occasionally ethnonyms are used also for languages. Thus, for instance, Tùnɛn is named 'Banɛn' by Guthrie (1971: 32), presumably because his sources did so, even though the name designates the people, not the language. I have tried to avoid ethnonyms whenever possible.

## 2.2 What are the Bantu languages?

According to the now current classification (Bendor-Samuel 1989), the Bantu languages belong to the Southern Bantoid languages, which are a subgroup of the Bantoid languages, a subgroup of the Benue-Congo languages, which in turn form a subgroup of the Niger-Congo language family. Figure 5 gives further details in the form of a traditional classificatory tree, which itself is a simplified overview of the current consensus. Even though the internal classification of Niger-Congo requires more work before it can be considered anywhere near definite, the

12 This particular coding system is described and explained in the next section below.

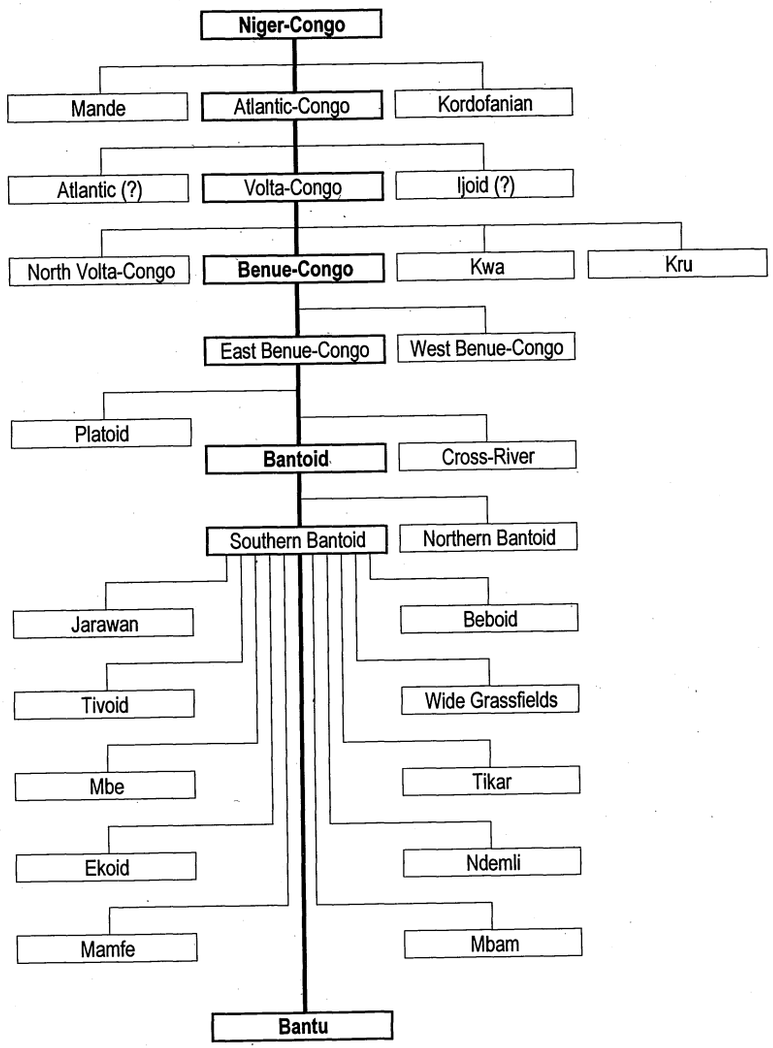



Figure 5 The place of Bantu within the Niger-Congo language family
Based on Williamson (1989ab), Watters & Leroy (1989) and Blench (1989). The question marks indicate uncertain classifications.



recognition of the groups Benue-Congo, Bantoid and Bantu, as well as their relative position towards each other, is nonetheless firmly established and accepted. However, there is a variety of classificatory problems with regard to the Bantu languages. In the following historiographical subsections, I will review some of these problems.

### 2.2.1 The term 'Bantu'

The term 'Bantu' was first used as a technical label for a certain group of languages in the mid-1850s by Wilhelm Bleek (see Silverstein 1968). He used it as a convenient label when cataloguing books in the library of Sir George Grey, who was British governor at Cape Colony during the early nineteenth century. Bleek derived the term 'Bantu' from what appeared to be a fairly widespread root for 'person' in the Bantu languages, for instance, *-ntu* in Isizulu, *-tu* in Kiswahili, *-ndu* in Otjiherero, and so forth. Modelling his term on the Isizulu form, he added a plural prefix *ba-* and got 'Bantu', which thus indicates 'people'.[13] In a linguistic context, 'Bantu' first appeared in Bleek's *A comparative grammar of South African languages* (1862; 1869), and it quickly gained general acceptance.

During the South African apartheid era, the term 'Bantu' carried derogatory connotations in that it came to be used as a category label for parts of the South African population based on pseudo-scientific and racist ideas. Thus some people came to prefer other terms, such as 'Sintu' and 'Kintu' (see Finlayson et al. 1986: 33). Nevertheless, the term 'Bantu' has gained international acceptance, in and outside Africa, and any change in usage has met with non-acceptance. Moreover, it should be emphasized that 'Bantu' is here, as it is elsewhere in the (modern) linguistic literature, used to refer only to a certain group of languages. Thus "[w]hile we speak of the Bantu-speaking peoples it is important to bear in mind that there is no Bantu race as such" (idem). It is a purely linguistic label.

### 2.2.2 Bantu à la Guthrie introduced and modified

The linguistic-genetic notion of Bantu as it is recognized today owes much to the works of the already-mentioned Malcolm Guthrie (1948; 1967b/1971; 1970). He made several major comparative studies. He also devised a classification that is widely used as a standard reference for identifying individual Bantu languages. This is the classificatory system that I have adopted in the present study. However, a few minor modifications have been necessary, especially since my language sample (for which see further below) contains languages that are not included in Guthrie's proposed classification.

13 The Isizulu word for 'people' is *abantu*.

**ZONE A**
Lundu-Balong Group (A10)
Duala Group (A20)
Bube-Benga Group (A30)
Basa Group (A40)
Bafia Group (A50)
Sanaga Group (A60)
Yaunde-Fang Group (A70)
Maka-Njem Group (A80)
Kaka Group (A90)

**ZONE B**
Myene Group (B10)
Kele Group (B20)
Tsogo Group (B30)
Shira-Punu Group (B40)
Njabi Group (B50)
Mbete Group (B60)
Teke Group (B70)
Tende-Yanzi Group (B80)

**ZONE C**
Ngundi Group (C10)
Mboshi Group (C20)
Bangi-Ntumba Group (C30)
Ngombe Group (C40)
Soko-Kele Group (C50)
Mongo-Nkundu Group (C60)
Tetela Group (C70)
Kuba Group (C80)

**ZONE D**
Mbole-Ena Group (D10)
Lega-Kalanga Group (D20)
Bira-Huku Group (D30)
Konjo Group (D40)
Bembe-Kabwari Group (D50)
Ruanda-Rundi Group (D60)

**ZONE E**
Nyoro-Ganda Group (E10)
Haya-Jita Group (E20)
Masaba-Luhya Group (E30)
Ragoli-Kuria Group (E40)
Kikuyu-Kamba Group (E50)
Chaga Group (E60)
Nyika-Taita Group (E70)

**ZONE F**
Tongwe Group (F10)
Sukuma-Nyamwezi Group (F20)
Ilamba-Irangi Group (F30)

**ZONE G**
Gogo Group (G10)
Shambala Group (G20)
Zigula-Zaramo Group (G30)
Swahili Group (G40)
Pogolo Group (G50)
Bena-Kinga Group (G60)

**ZONE H**
Kikongo Group (H10)
Kimbundu Group (H20)
Kiyaka Group (H30)
Kimbala Group (H40)

**ZONE K**
Chokwe-Luchazi Group (K10)
Lozi Group (K20)
Luyana Group (K30)
Subiya Group (K40)

**ZONE L**
Pende Group (L10)
Songe Group (L20)
Luba Group (L30)
Kaonde Group (L40)
Lunda group (L50)
Nkoya Group (L60)

**ZONE M**
Fipa-Mambwe Group (M10)
Nyika-Safwa Group (M20)
Konde Group (M30)
Bemba Group (M40)
Bisa-Lamba Group (M50)
Lenje-Tonga Group (M60)

**ZONE N**
Manda Group (N10)
Tumbuka Group (N20)
Nyanja Group (N30)
Senga-Sena Group (N40)

**ZONE P**
Matumbi Group (P10)
Yao Group (P20)
Makua Group (P30)

**ZONE R**
Umbundu Group (R10)
Ndonga Group (R20)
Herero Group (R30)
Yeye Group (R40)

**ZONE S**
Shona Group (S10)
Venda Group (S20)
Sotho-Tswana Group (S30)
Nguni Group (S40)
Tswa-Ronga Group (S50)
Chopi Group (S60)

Figure 6 Bantu zones and groups in Malcolm Guthrie's (1970a: 11ff) classification



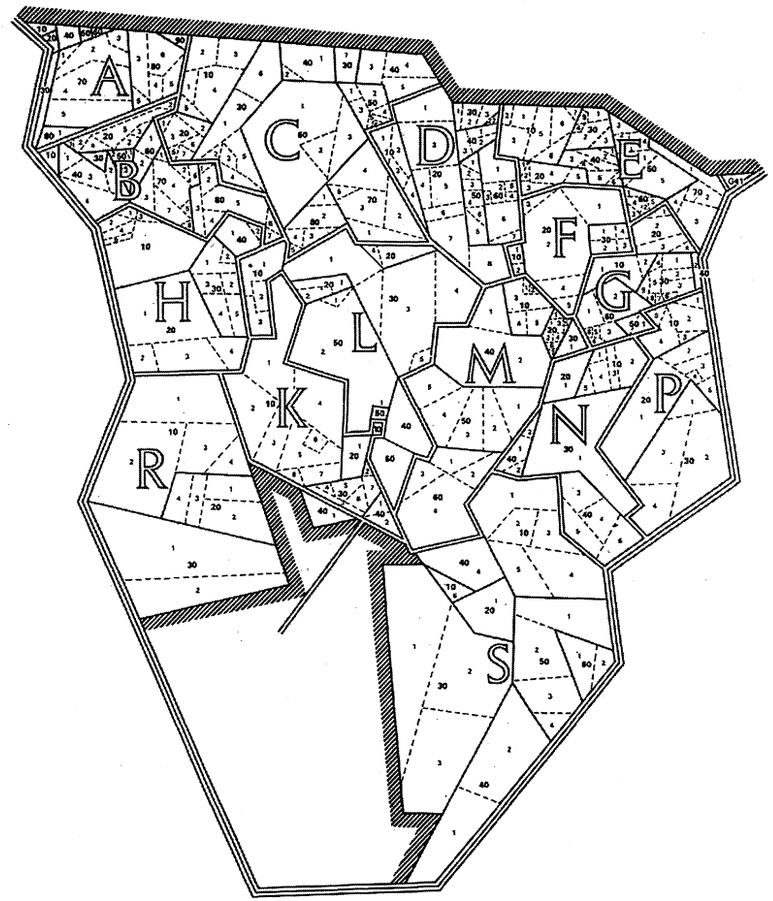



Figure 7 Malcolm Guthrie's (1967b: 65) diagrammatic map of the Bantu area

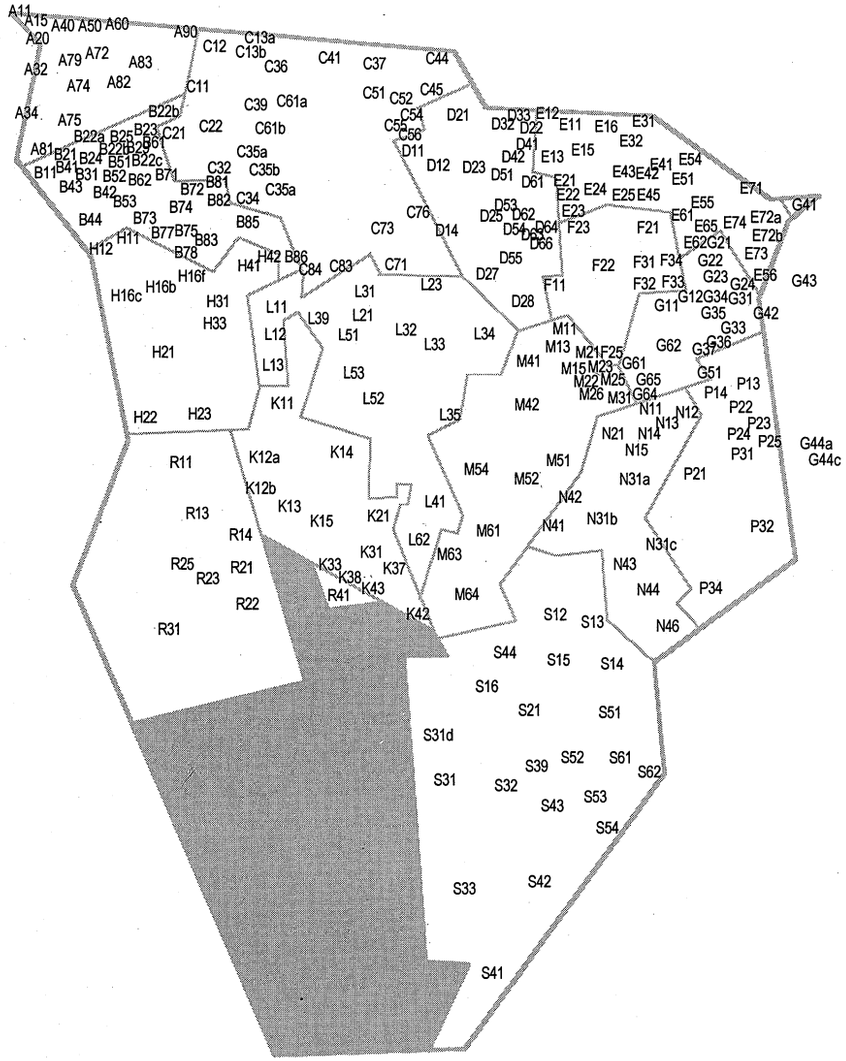



Figure 8 Simplified version of Malcolm Guthrie's Bantu map
See also supplementary section B.



In the 1971 version of his classification (tabulated in figure 6), Guthrie grouped the Bantu languages into fifteen zones labelled with Roman letters A to S (save I, J, O and Q).[14] These were further subdivided into various clusters and groups labelled with Arabic numerals. For instance, Guthrie's S40[15] group, or the Nguni group, is represented by Isixhosa (S41), Isizulu (S42), Siswati (S43) and Sindebele (S44). Kiswahili belongs to the Swahili group, or G40, and is coded 'G42'. Guthrie's coding system is very useful for identifying purposes. Not only does each language have a unique code of its own: the zonal letter simultaneously gives us a rough idea of where in the Bantu area a given language is spoken, since Guthrie also devised a diagrammatic map to follow his classification, which is reproduced in figure 7. This he used for many of his data presentations, a methodological strategy adopted in many Bantu studies since.[16] I have done the same, and in fact, I have used Guthrie's very map, or rather, a considerably simplified version of it (see figure 8). The simplification is that the map which I use contains information only about the sampled languages. These are represented in the simplified map by so-called map entry points that more or less equal the language codes devised by Guthrie. For instance, Isizulu bears the Guthrie code 'S42' and is thus represented in the simplified map by a map entry point labelled 'S42'. However, the system of map entry points used here displays a number of deviations and modifications when compared to Guthrie's original map/classification. These are described in more detail in supplementary section B, but I will make some brief notes here.

Some map entry points correspond to languages not found in Guthrie's original map. In fact, some of the sampled languages are not classified/coded at all by Guthrie (1971). Such languages have been given map entry points corresponding to codings suggested by other sources. For instance, Rugciriku is coded 'K38' according to Guthrie's classification by Möhlig (1983), and that code is also its map entry point here. Other languages not classified/coded by Guthrie have been tied to map entry points corresponding to already-existing codes. For instance, Xaayo and Isuxa (which are not classified/coded by Guthrie) are here grouped together with Hanga, following Tucker & Bryan (1957: 25ff). The latter language is coded 'E32' by Guthrie, so I have used a map entry point corresponding to that code also for Xaayo and Isuxa. There are also languages which Guthrie does indeed classify and code but which do not appear in his map, like Ombɔ, coded 'C76', and Siswati, coded 'S43'. All map entry points

14 His earlier classification from 1948 contained 16 zones, labelled A to T (save I, J, O and Q).

15 A point of detail: Guthrie has a dot separating the zonal letter from the rest, for instance, 'S.40'. I have opted for not using this dot.

16 See, for instance, the many Bantu studies appearing in journals like *Africana linguistica* (published in Tervuren) and *Sprache und Geschichte in Afrika* (formerly published in Hamburg, now in Cologne).

corresponding to additions to Guthrie's original map have been placed where deemed appropriate. In most cases, my sources provide all the relevant information.

Some of the language areas depicted in Guthrie's original map have been slightly modified for present purposes. More specifically, they have been split into several areas represented by several map entry points. For instance, while Guthrie (1971) classifies/codes Chinyanja (N31a), Chichewa (N31b) and Manganja (N31c) separately in his list of languages, they are jointly represented by a single area in his map (denoted 'N31'). Where I have found sufficient amounts of data , I have split such areas so that in this particular case, for instance, what appears as 'N31' in Guthrie's map corresponds to three map entry points in my map, namely, 'N31a' (Chinyanja), 'N31b' (Chichewa) and 'N31c' (Manganja) .

Eight sampled languages have not been given any map entry points at all either because I have not been able to locate them properly or, as is the case with Kituba, it was added to the sample too late for inclusion in the maps. None of these languages contain data that would significantly alter any of the resulting distributions. Still, data relevant to these languages (except Kituba) do appear in conjunction with the maps, although slightly displaced from where they would have occurred had they had their own map entry points (see the many figures in chapter 4 for examples). They are also discussed in the main text where necessary.

### 2.2.3 The Bantu languages as a linguistic-genetic grouping

The internal affinity of the Bantu languages has long since been recognized.[17] The Catholic missionary Abbé Proyart (1776) is the first known to have mentioned a possible parent language for some western Bantu languages. The German traveller/scholar Hinrich Lichtenstein (1808) came to the same conclusion about some eastern and southern Bantu languages. The (probably) first real "global" comparative study based on languages from many Bantu areas, however, was done by the English orientalist and antiquary William Marsden in the early nineteenth century. After comparing lexical items from various languages, he reached the conclusion that "[i]t is highly probable that all these mutually understand each other in conversation. Between the Congo language and that of the tribes on the eastern side, the affinity, although radical[,] is much less striking, and the people themselves must consider them as quite distinct; but the ... instances of resemblance, in words expressing the simplest ideas, may be thought sufficient to warrant belief, that the nations by whom they are employed, must, at a remote period, have been more intimately connected" (Marsden, in Tuckey 1818; quoted

17 The bulk of the next three paragraphs constitutes a condensed and selective summary of Doke (1960b) and Cole (1971).



by Doke 1960b: 73). Others, too, arrived at the same kind of conclusions.

Somewhat later, the English medical doctor James Cowles Prichard (1826; 1837) attempted a subclassification based on vocabulary comparisons. His material was drawn from a number of contemporary sources (Doke 1960b: 75ff). However, it was a series of articles by the Wesleyan missionary John Whittle Appleyard published during 1847 in *The South African Watchman and Missionary Magazine* that provided "the first serious detailed study ... with a view to classification" (Doke 1960b: 77). He clearly reckoned all the then known Bantu languages as being dialects of a so-called alliteral class of languages[18] which he divided into four main groups: 'Congo' comprising Kikongo, Mbunda and Ngangela (called 'Benguela' by Appleyard); 'Damara', being an erroneous name for Otjiherero often used in older literature; 'Sechuana' comprising Setswana and Sesotho; and 'Kaffir' comprising Isizulu, Isixhosa and a variety of related languages/dialects. To these he added a fifth category of unclassified dialects, comprising Ciyao, Kiswahili, Kauma and Kamba. Shortly after the publication of Appleyard's articles, the German philologist Ludwig Krapf writes of "the astonishing fact (which every new philological discovery seems to corroborate), that one common language lies at the bottom of all the idioms which are spoken from the Equator to the Cape of Good Hope" (Krapf 1850: v; quoted by Doke 1960b: 78).

Later, another German philologist, Wilhelm Bleek (1862; 1869), published a major, but unfinished, comparative study in which he compared twenty-four Bantu languages with Isixhosa. Basing his comparison largely on the contemporary literature, he arrived at a classification in which he recognized three large branches of Bantu languages: the 'South-Eastern Branch' containing Isixhosa (called 'Kafir'), Isizulu, a Setswana dialect called Sethlaping ('Seχ̀lapi'), Sesotho and Xigwamba ('Tekeza'); the 'North-Western Branch' containing Kɛlɛ, Benga, Duala, Isubu and Bobe ('Fernandian'); and a large 'Middle Branch' divided into five groups (or genera, as he calls them), namely, the 'Mosambique Genus' containing Nyungwe ('Tette'), Sena, Emakhuwa ('Makua') and Yao ('Kihiau'), the 'Zangian Genus' containing Kamba, Kauma ('Kinika') Kiswahili and Shambaa ('Kishambala'), the 'Interior Genus' containing only Siyeyi, the Bunda Genus containing Otjiherero, Oshindonga, Umbundu ('Nano') and Kimbundu ('Angola'), and finally the 'Kongo Genus' containing Kikongo and Mpongwe.

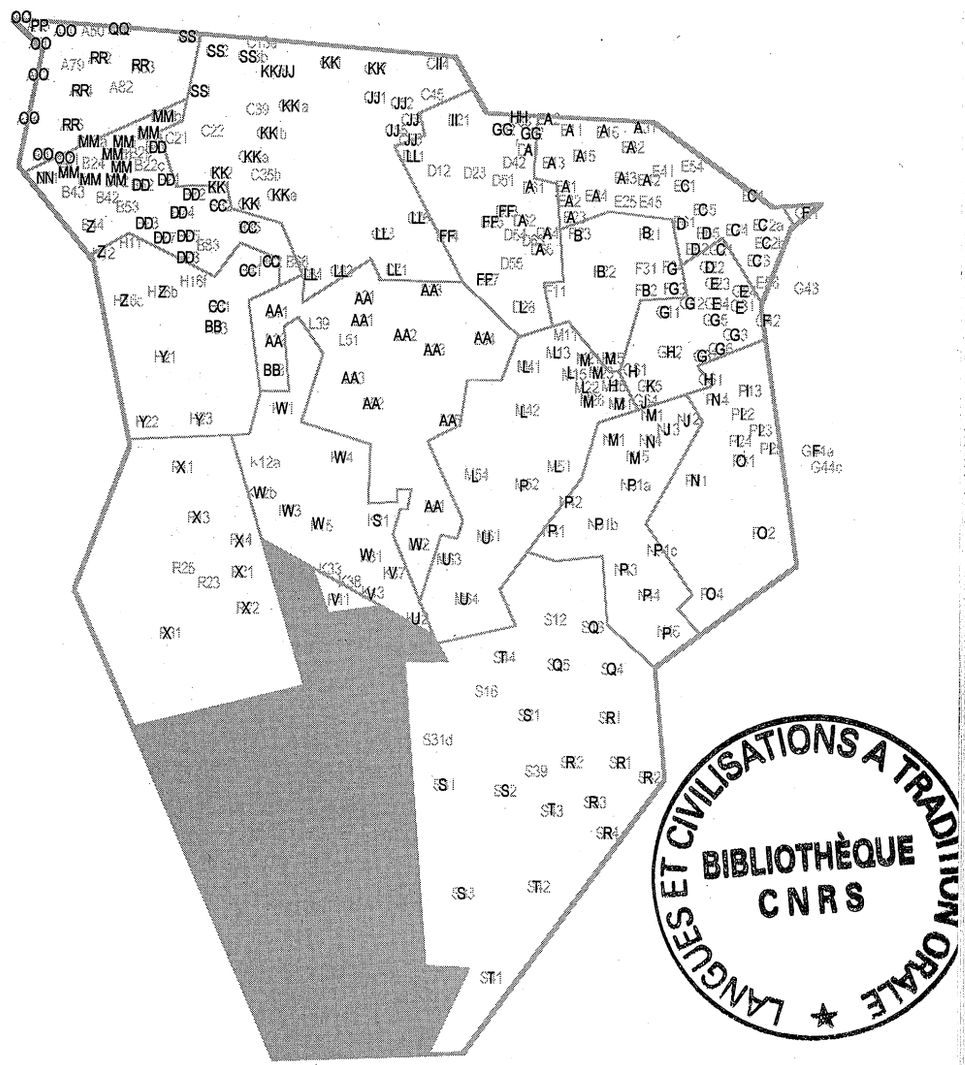
A comprehensive but less appreciated classification of the Bantu languages was presented by Sir Harry Johnston (1919/1922). He compared various lexical and morphemic roots from more than 200 Bantu languages. However, he

18 The term 'alliteral' derives from an Isixhosa grammar written by another Wesleyan missionary, namely, William Boyce (1834). 'Alliteral' (or 'euphonic' as he also called it) refers to the peculiar system of grammatical agreement in Bantu languages whereby noun prefixes appear to be "copied" onto adjectives, numerals, possessives, and so on.

| | | | |
|---|---|---|---|
| A | Nyanza Group [1-7] | AA | Luba-Lunda Group [104-111] |
| B | Nyamwezi Group [8-10] | BB | Upper Kwañgω Group [112-115] |
| C | British East Africa Group [11-16] | CC | Kwañgω-Kasai Group [116-121] |
| D | Kilimanjarω Group [17-18] | DD | Central Coñgωland Group [122-139] |
| E | Usambara Group [19-20] | EE | Middle Lωmami Group [139] |
| F | Swahili Group [21-22] | FF | Elila-Lωwa-Lualaba Group [140-144] |
| G | Usagara-Ugωgω Group [23-26] | GG | Ruwenzori-Semliki Group [145-147] |
| H | Upper Rufiji Group [27-31] | HH | Upper Ituri Group [148-150] |
| I | Rufiji-Ruvuma Group [32-34] | II | Ababua or Wele-Aruwimi Group [151-154] |
| J | N Ruvuma, N E Nyasaland Group [35-37] | JJ | Aruwimi-Lωmami Group [155-158] |
| K | Ukiñga Group [38] | KK | North Central Congoland Group [159-174] |
| L | Tañganyika-Bañgweulu Group [39-47] | LL | Kwa-Kasai-Upper ωgωwe (Teke) Group [175-182] |
| M | N W Nyasa Group [48-53] | MM | Central ωgωwe Group [183-190] |
| N | Yaω-Ñgindω Group [54-55] | NN | ωgωwe Gaboon Group [191-193] |
| O | Moçambique Group [56-57] | OO | Spanish Guinea-West Cameroons Group [194-212] |
| P | South Nyasaland Group [58-62] | PP | Maneñguba Group [213-215] |
| Q | South Rhodesia-Puñgwe-Sabi Group [63-68] | QQ | Middle Sanagá Group [216] |
| R | Şeñgwe-Roñga Group [69-71] | RR | 'Fañg' Group [217-220] |
| S | Becuana-Transvaal Group [72-74] | SS | Kadei-Sañga-Lωbai Group [221-225] |
| T | Zulu-Kafir Group [75-76] | TT | Fernandian Group [226] |
| U | West Central Zambezia Group [77-80] | | |
| V | West Zambezia Group [81-83] | | |
| W | North-West Zambezia Group [84-88] | | |
| X | South-West Africa Group [89-94] | | |
| Y | Añgola Group [95-99] | (SEMI-BANTU LANGUAGES) | |
| Z | Koñgo Group [100-103] | (Groups A-N [227-274]) | |

Figure 9 Bantu groups in Sir Harry Johnston's (1922: x+2ff) classification
The numbers in square brackets refer to Johnston's numbering of individual languages. See also figure 10.





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Figure 10 The sampled languages according to Sir Harry Johnston's classification

"contributed much in data and good will, but little in linguistic sophistication" (Hamp 1970: 277). He grouped the Bantu languages into 46 major groups, with subdivisions of minor importance. His major groups were coded with capital letters of the Roman alphabet. These are tabulated in figure 9 (see also the map in figure 10). Each language received an Arabic numeral with or without an additional lower-case Roman letter. For instance, Isixhosa is coded '75', Isizulu '75a', Siswati '75b' and Sindebele '75c'. Together they constitute what Johnston (1922: 6) calls 'Group T' or 'The Zulu-Kafir languages'. Kiswahili belongs to Group F (The Swahili Group) and is coded '21' (idem: 3).

Johnston used typological criteria for determining what was or was not to be included as Bantu. "There is no mistaking a Bantu language for a member of any African speech family. A momentary glance at the numerals, at a dozen word-roots with their prefixes or suffixes, determines the fact whether it is or is not a member of the Bantu family. The phonology also is as a rule distinctive, though appearances may be deceptive in the case of a few languages of the north-western part of the Bantu field ... outside the Bantu family there is no known speech group in Africa which displays all the characteristic features of Bantu word-construction and syntax and at the same time shows unmistakable affinity in word-roots" (Johnston 1919: 17). Languages that fullfilled only parts of his Bantu criteria, he grouped together as Semi-Bantu, which comprises about 50 languages in 14 groups, some as far west as Guinea and Gambia. A few languages included as Bantu languages in my sample are found among Johnston's Semi-Bantu groups, for instance, Kwakum (called 'Bakum' by Johnston) and Akwa, both of which Johnston places in a group labelled 'The Cameroons Borderland'.

While Johnston's classification is by and large forgotten, it is, as already mentioned above, Malcolm Guthrie's (1948; 1967b/1971; 1970) classification that has become the standard reference work in Bantu studies. The notational system has already been introduced above, so I will not repeat it here. As with previous classifications, however, neither was Guthrie's free from a typological bias. His method of grouping languages together is best described by himself: "Suppose we take the individual language as our starting-point, and then move outwards from it. It is possible in this way to group together with the language from which we started other adjacent languages which display similar characteristics. At some point we shall decide that we have moved into another group. The decision will, however, have an element of arbitrariness in it, because although we shall be able to assert that the group displays a certain set of common characteristics, the distribution of any of these may not be coextensive with the group" (Guthrie 1948b: 27). This particular passage was commented upon by Watkins (1957: 632) as follows: "The 'element of arbitrariness' exercised by Guthrie and his followers,



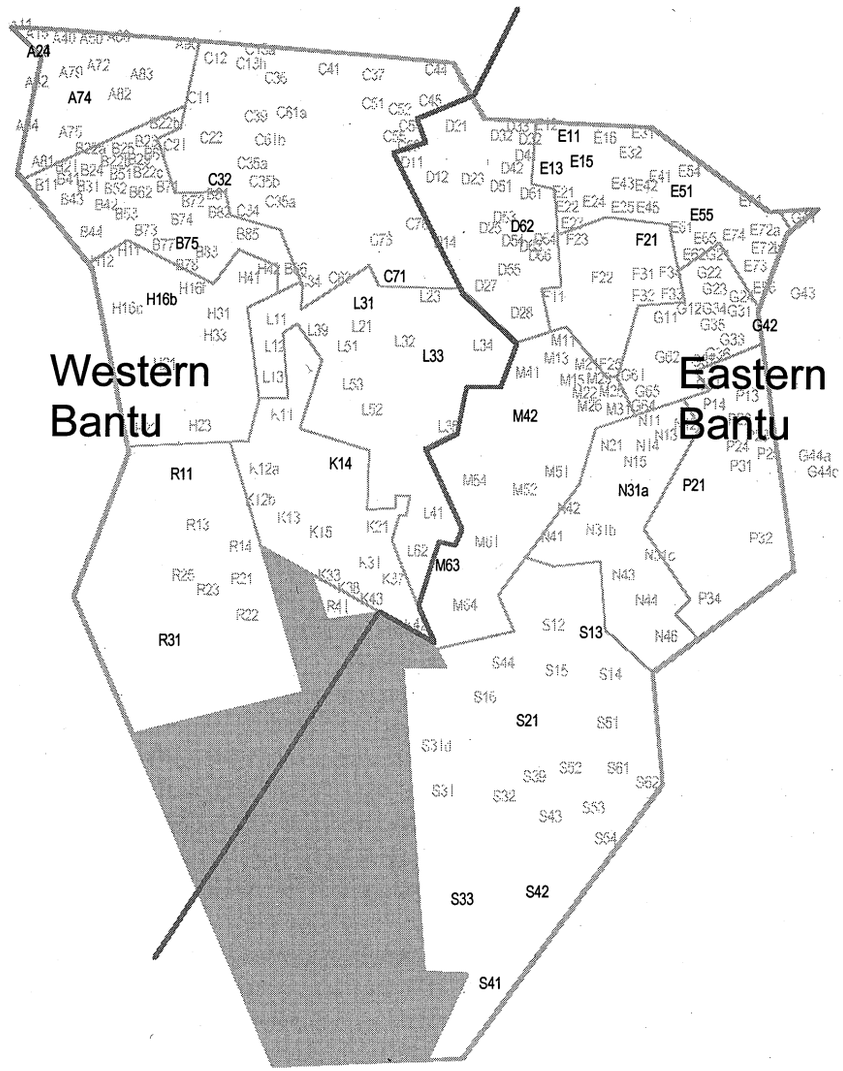



Figure 11 The distribution of Malcolm Guthrie's 28 test languages

and the weight that they give to the geographic proximity of languages, seem so great as to impose serious limitations on the resulting classifications." Thus it should be borne in mind that Guthrie's zones are on the whole geographical units rather than linguistic-genetic, something that he himself also stressed in fact. His groups and clusters, on the other hand, are generally assumed to be more or less valid in linguistic-genetic terms.[19]

One of Guthrie's main aims was to reconstruct the properties of Proto-Bantu. He was not the first to try, as has already been mentioned above. Bleek (1862; 1869) and Meinhof (1899; 1906; 1910; 1932; 1948), in particular, had already presented (partial) reconstructions of an assumed Proto-Bantu. Guthrie (1971: 114) criticized Meinhof for, amongst other things, not allowing dialectal variation in the former's proto-language.[20] Guthrie divided his own reconstruction of Proto-Bantu into two main dialects, called 'PB-A' and 'PB-B'. These became ancestral to what is now the great divide of eastern and western branches of Bantu languages (see Guthrie 1971: 7ff+27; see also figure 11). Guthrie's east-west divide has not, though, been generally accepted. It has even been explicitly contradicted by subsequent studies, for instance, by Henrici (1973) who did lexicostatistical counts based on Guthrie's own material. On the other hand, comparative studies by, for instance, Bastin, Coupez & De Halleux (1983) retain the east-west divide (see also Vansina 1995a: 180ff). The east-west divide is supported by some of the distributions that are discussed below, yet most of them cut right across it. Designations like 'western Bantu' and 'eastern Bantu' occur in many contexts throughout this study, but only as geographical pointers, together with 'northern Bantu', 'southern Bantu' and so on (see also figure 53 in chapter 4).

Although the totality of Guthrie's material includes some 200 languages, his grand geographical classification as well as his reconstructions are essentially based on only 28 test languages specially selected for the purpose (see figure 11). The group of test languages was not without its bias. The "highly differentiated group of languages spoken inside the tropical forest is represented only by five test languages, while the relatively uniform group of Savannah languages is represented by twenty-three test languages" (Möhlig 1979: 111). Further skewing is made for by the fact that also the Savannah languages are unevenly represented. As a result, the "most typical" Bantu language happens to be Icibemba (see Dalby 1975: 493) and thus some Bantu languages, in particular those of zones A, B and C, are relegated to the fringes of Bantu.

19 In order to counterbalance the nongenetic value of Guthrie's zonal groupings, the so-called Tervuren group of scholars, and others following them, have re-organized Guthrie's D40-D60 and E10-E40 groups into a new zone J; see, for instance, Bastin, Coupez & De Halleux (1983).

20 Canonici (1993: 11) makes the rather curious comment that "Guthrie's criticism of Meinhof has been declared invalid on the grounds that Historical Linguistics is an Art, not a Science."



A classification often referred to as "less known" is that of the South African scholar Clement Doke (see figures 12 and 13). He used a geographical classification initially devised for a bibliographical survey of linguistic literature dealing with Bantu languages (see Doke 1945). It was later revised and republished by Desmond Cole (1951) as a tool for librarians, before being published as a classification in its own right by Cole (1961). Doke's classification is based on seven major zones, plus a few subsidiary zones. The coding system is more or less entirely based on Arabic numerals, the exception being the use of lower case Roman letters to indicate dialects. Thus Isizulu is coded '60/1/1', Isixhosa '60/1/2' and Siswati '60/1/3'. Sindebele is classified as a dialect of Isizulu and thus coded '60/1/1d'. Kiswahili is coded '51/1/1'.

Doke's classification was completely ignored by Guthrie, so Anthony Cope (1971) set out to consolidate them both (see figures 14 and 15). "In such a consolidation, we must expect that Doke has to give way to Guthrie more often that [sic] Guthrie to Doke in matters of divergence, because Doke's material was most often second-hand and often fragmentary and unreliable ... whereas Guthrie's material is most often first-hand, if not in the original classification then in his revisions; or at least good second-hand, through his colleagues [at the School of Oriental and African Studies]" (Cope 1971: 150). The divergences were mostly at the level of zones; while Guthrie had fifteen, Doke had seven. In fact, "they hardly coincide at all" (idem: 151). Worth keeping in mind is that both classifications were on the whole geographical rather than linguistic-genetic, particularly on the level of zones.

At any ratè, Cope redrew the boundaries for Guthrie's and Doke's zones, while keeping most of their language groups, although not entirely intact (compare figures 13 and 14). He devised no coding system of his own, but used both Guthrie's and Doke's codes in referring to individual languages and language groups, although he did number his major areas with Arabic numerals 1 to 8. Cope "deserves to be much more widely known and cited. The author offers important critiques of both Doke's and Guthrie's approaches. Further, Cope brings an important problem to light, namely the poor intersection of relations among Bantu language subgroups postulated by linguists, anthropologists, and archaeologists" (Herbert 1993: xi). However, neither Doke's classification nor Cope's consolidation has received much recognition outside southern African linguistics.

There have been other classifications as well, for instance, by Henrici (1973), Heine (1973), Heine, Hoff & Vossen (1977), and Bastin, Coupez & De Halleux (1983). The one presented by Heine, Hoff & Vossen (1977) is one of the most oft-cited, and I return to some of its implications in chapter 5. Suffice it to say that their many branches, groups and subgroups (see figures 16 and 17) differ quite

| | | | |
|---|---|---|---|
| 10 | North-Western Zone | 50 | Eastern Zone |
| | | 51 | North-Eastern Zone |
| 20 | Northern Zone | 52 | East-Central Zone |
| 30 | Congo Zone | 60 | South-Eastern Zone |
| | | 61 | South-Central Zone |
| 40 | Central Zone | | |
| | | 70 | Western Zone |
| | | 71 | West-Central Zone |

Figure 12 Bantu zones in Clement Doke's classification

considerably from the units in Guthrie's classification. In particular, they establish eight major branches (labelled with Roman numerals), one of which, the Kongo branch, is itself composed of eight major groups (labelled with Arabic numerals). The overwhelming majority of the Bantu languages are found in only one of these groups, the East Highland group. Moreover, their notion of 'Bantu' differs somewhat from most other classifications in that they include two branches, Tiv and Ekoid, containing languages that are traditionally not considered to be Bantu (see more on this in the next subsection).

Many efforts have been done to try to refine or revise Guthrie's (1971) classificatory proposals.[21] Despite these efforts, however, no universally accepted classification of all Bantu languages has yet surfaced, but there are a few regional ones. Doke (1954) offered classifications of the southern Bantu languages, while for various parts of the eastern Bantu area, we have Nurse & Philippson (1980), Hinnebusch, Nurse & Mould (1981), Nurse & Hinnebusch (1993), as well as Schoenbrun (1994).

Most Bantu classifications rely, implicitly or explicitly, on the traditional Stammbaum-model in which all modern Bantu languages are thought of as being derived from an original proto-language by way of a series of (usually) binary splits. (The classificatory tree in figure 5 above is one such example.) Seldom are convergence phenomena taken into account. The German linguist Wilhelm Möhlig has chosen a somewhat different approach, an approach which he characterizes as 'multidimensional' or 'stratificational' (Möhlig 1979: 122). He does not, however, completely reject the traditional tree-model. His view on the history of the Bantu

21 There is a vast response-literature to Guthrie's proposed classification as well as many of his hypotheses. I return to this issue in chapter 5 below.



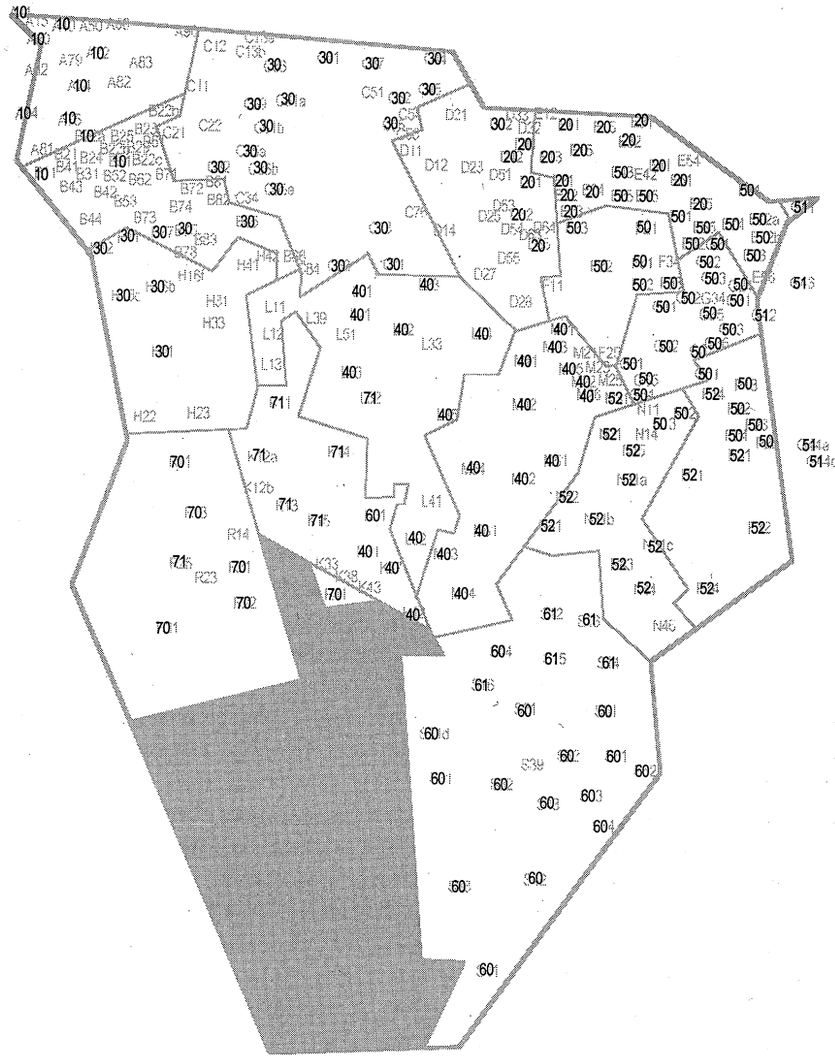


Figure 13 The sampled languages according to Clement Doke's classification

| | | | |
|---|---|---|---|
| 1a | North-Western (Extremity) Area | 5a | Central (West) Area |
| 1b | North-Western (Proper) Area | 5b | Central (East) Area |
| 2a | Northern (Extremity) Area | 6 | Eastern Area |
| 2b | Northern (Proper) Area | 7 | South-Western Area |
| 3 | North-Eastern Area | 8a | South-Eastern (North) Area |
| 4 | Western Area | 8b | South-Eastern (South) Area |

Figure 14 Bantu areas in Anthony Cope's consolidated classification

languages is as follows: "Besides periods of splitting into filial languages, there also existed phases of intensive convergence between such filial languages. And most probably, many a dialect owes its existence to the fact of some incomplete language shifting, i.e. to cases where speakers of a different language — Bantu or non-Bantu — took over a new Bantu idiom but kept some elements of their own language like pronunciation, phonemes, grammatical or lexical traits, syntax, idiomatic expressions etc." (idem). Thus languages "are shown to be related not only by the vertical genealogical lines between the different levels of the hierarchy of various ancestor languages but also by the horizontal lines of convergence and adstratification" (idem: 122f).

With dialectological studies based on a variety of phonological traits, such as the development of **p*, **t* and **k* before non-tense vowels and sound shifts in the domain of prenasalized stops, Möhlig (1981) arrives at a set of eleven stratificational nuclei divided into two main groups: three rainforest strata and eight savannah strata (see figure 18).[22] These are labelled with Roman numbers and letters. (For space reasons, these are notated with Arabic numerals in figure 18.) I will not review the details of his stratificational model, but merely note that I find it a much more convenient and "true" view of language change than that presumed by a Stammbaum-model. It also carries a lot more explanatory power when dealing with dialectological data that I use in this study. This will be fairly evident in chapters 4 and 5.

When Meinhof (1899; 1910; 1932) presented his reconstruction of the phonology of Ur-Bantu, he explicitly stayed clear of trying to classify the Bantu languages since in his opinion Bantu studies had not yet reached the stage of "all-

22 The distribution of Möhlig's nuclei is not transparent from the labels he uses. Thus there are languages belonging to rainforest nuclei also outside the rainforest area, as can be seen in figure 18.



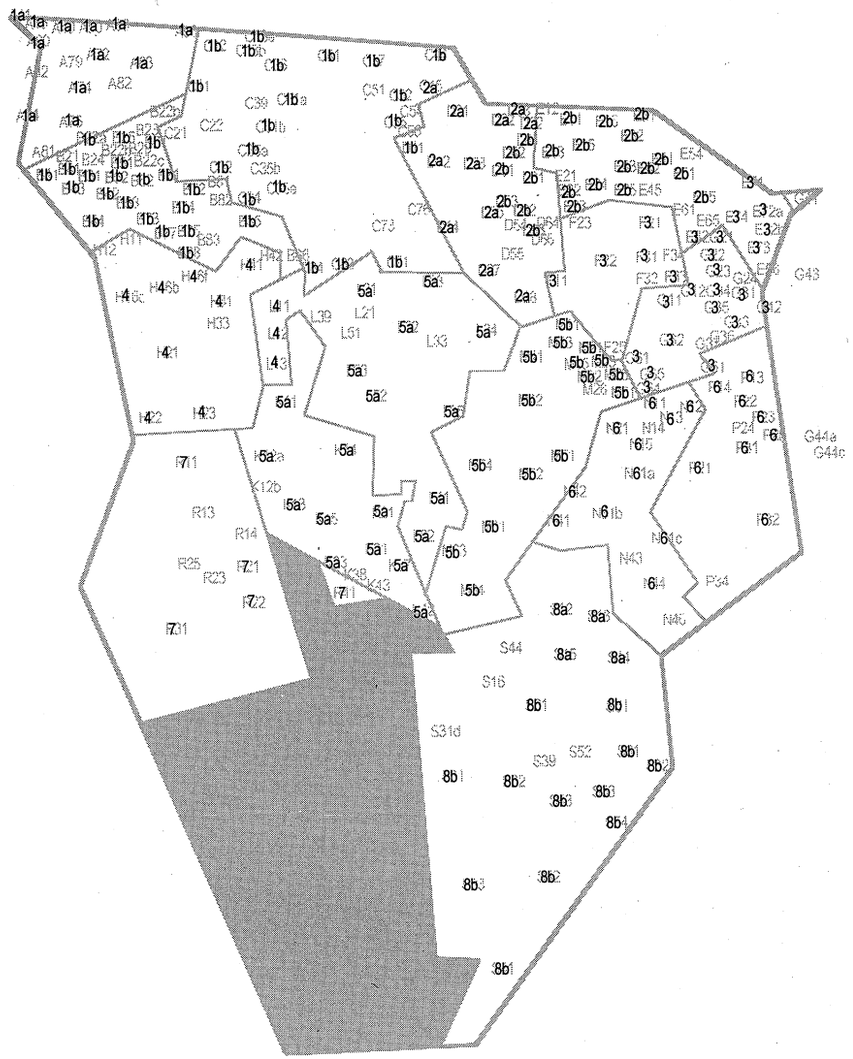


Figure 15 The sampled languages according to Anthony Cope's consolidated classification

| | | | |
|---|---|---|---|
| I | TIV BRANCH | VIII | KONGO BRANCH |
| II | EKOID BRANCH | 1. | Upper Kongo Group |
| III | BUBE BRANCH | 2. | Mbete Group |
| IV | SANAGA BRANCH | 3. | Kikongo Group |
| V | KANDE-MPONGWE BRANCH | 4. | Boma Group |
| VI | ARUWIMI BRANCH | 5. | Yanzi Group |
| VII | ITURI BRANCH | 6. | Lunda-Chokwe Group |
| | | 7. | West Highland Group |
| | | 8. | East Highland Group |

Figure 16 Bantu branches and groups in Heine, Hoff & Vossen's classification
See also figure 17.

round knowledge of all the languages" which underlies any sound classification (Meinhof 1932: 176). Much to his distress, one might assume, had he still been alive, we are still waiting for that level of knowledge. Many important contributions in various areas have been made, as summarily detailed above (see also chapter 1), and it is my hope that the present study too may be able to contribute its fair share to that aim.

### 2.2.4 The boundary towards other languages

Bantu is not a clearly defined group of languages, even though I have conveniently assumed so above. The major problem lies in how to draw the boundary between Bantu and non-Bantu. The difficulty in this respect concerns the northern Bantu area, which is mapped in figure 19. In the north-east, that is, north-eastern Congo-Kinshasa, Uganda, Tanzania and Kenya, the classificatory issue is fairly simple since many of the languages adjacent there are either Afroasiatic or Nilosaharan. Moving westwards into northern Congo-Kinshasa, the Central African Republic, Congo-Brazzaville and south-eastern Cameroon, we find Adamawa-Ubangi languages which are also fairly easy to separate from the Bantu languages, although the area is not entirely free from classificatory problems in this respect. In south-western Cameroon, we find several languages that are closely related to Bantu, and it is mainly here that we find disagreements among scholars. To these we can add pidgins/creoles and so-called mixed languages which also pose classificatory problems. These are excluded from the discussion here, however. (They are discussed in chapters 3 and 5 below.)

As already mentioned, the Bantu languages are today classified as a subgroup



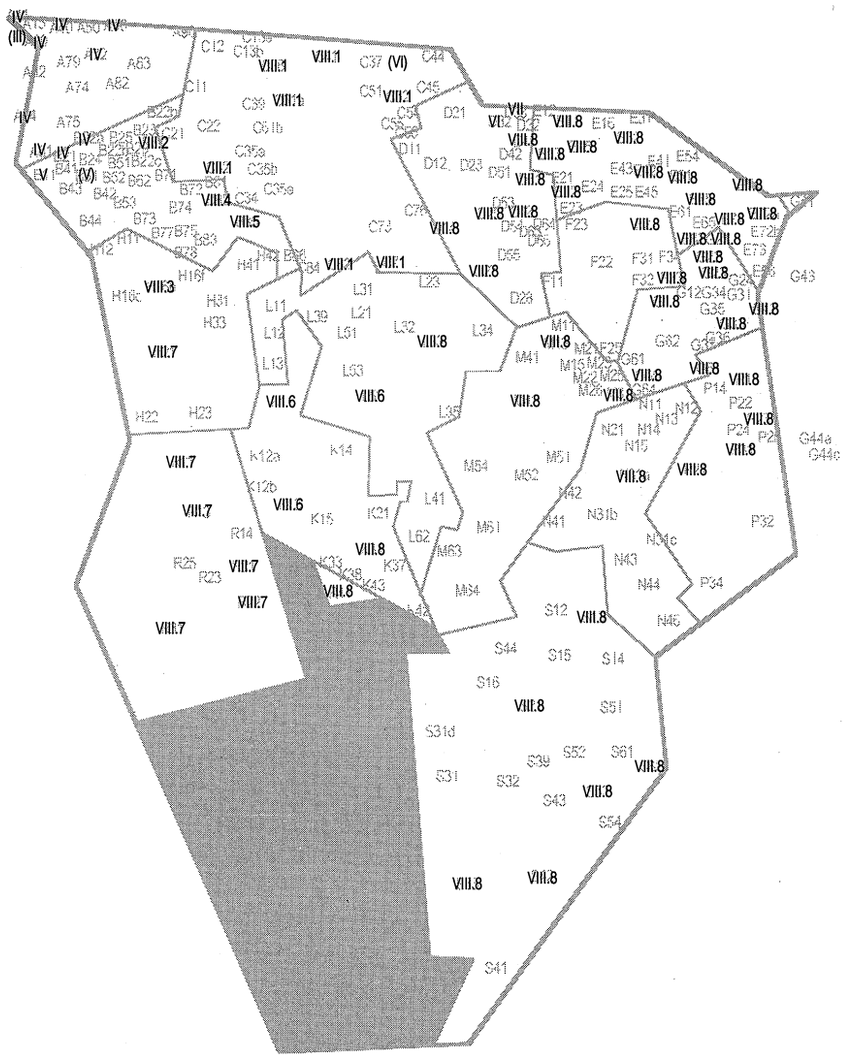


Figure 17 The sampled languages according to Heine, Hoff & Vossen's classification
Parentheses indicate would-be map entry points for a few languages lacking in my sample.

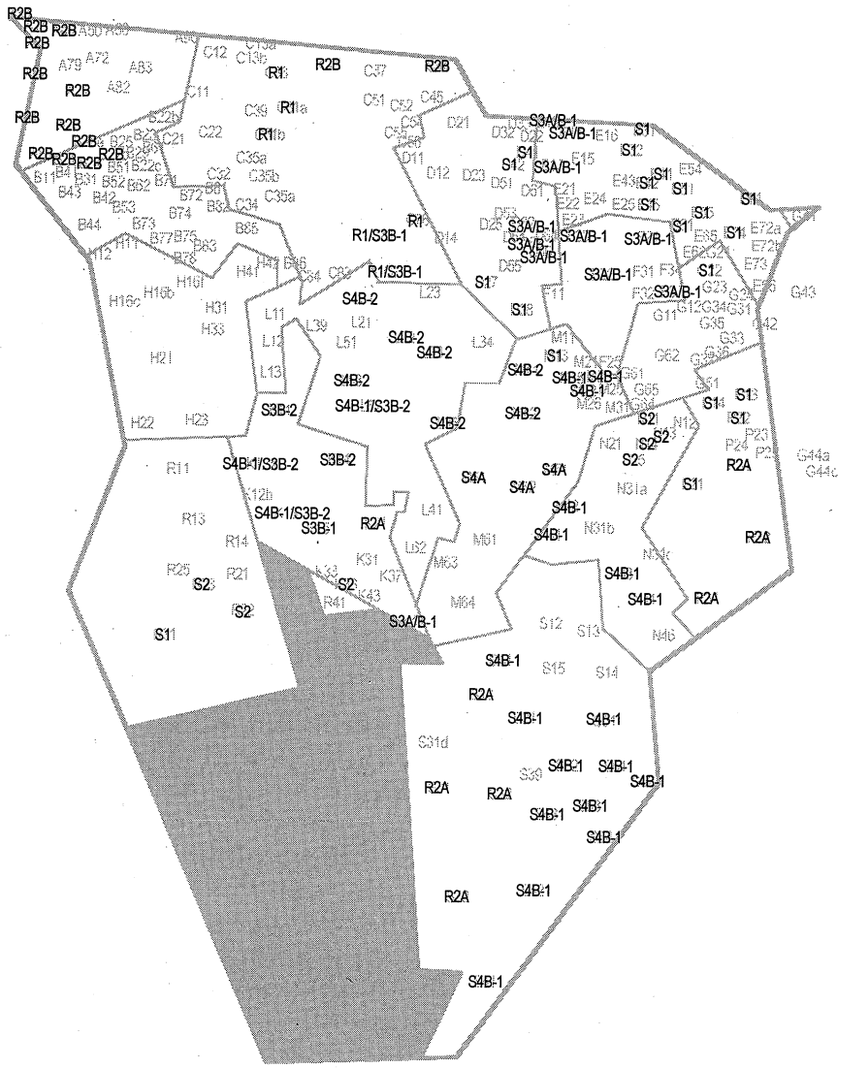


Figure 18 The sampled languages according to Möhlig's stratificational nuclei
"R" refers to rainforest nuclei and "S" refers to savannah nuclei. Note that some languages belong to two nuclei; here indicated with a slash "/". Möhlig (1981) uses Roman numerals in his original, not Arabic. The latter are chosen here for space reasons.



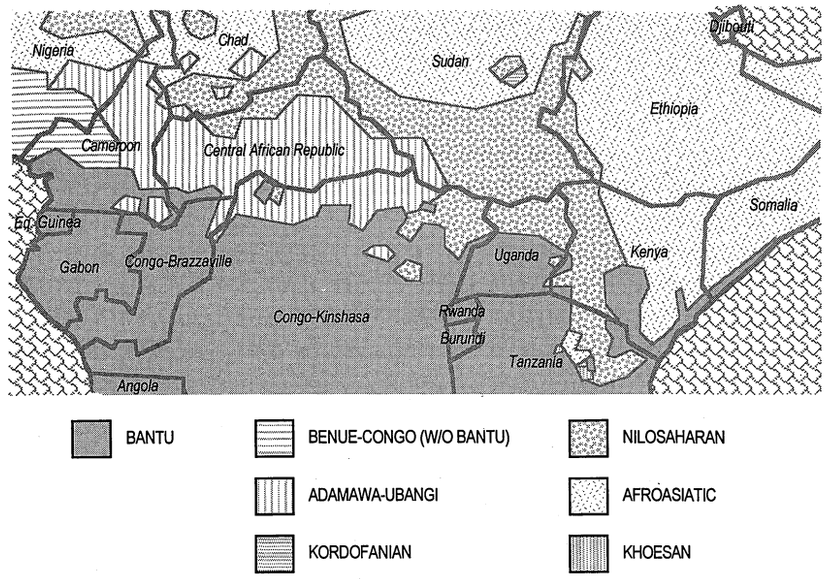



Figure 19 The northern borderland between Bantu and non-Bantu

of the Southern Bantoid languages (sometimes referred to as 'Wide Bantu') together with language groups such as Tiv, Ekoid, Wide Grassfields, Mbam, and others (see Watters & Leroy 1989; Blench 1993; see also figure 5 above). However, Southern Bantoid itself is not a well-defined grouping, as evident from the various language classifications surveyed by Watters (1989: 404ff). Furthermore, there "is no unequivocally established set of shared innovations or lexicostatistic counts that define Southern Bantoid, including Bantu, as a genetic unit" (Watters & Leroy 1989: 431). And just as Southern Bantoid seems to be a vaguely defined unit, so is Bantu. For instance, Heine, Hoff & Vossen (1977) include Tiv and Ekoid in Bantu, Watters & Leroy (1989) classify them as Southern Bantoid outside Bantu, and Guthrie (1971) classifies them as Sub-Bantu, that is, almost Bantu. Manenguba (Guthrie's A15) is usually included within Bantu, but is excluded by Blench (1989: 133) who classifies it as Wide Bantu. Moreover, Bennett & Sterk (1977) regrouped some of the northern Bantu languages and placed them outside the now traditional notion of Bantu together with some Bantoid languages. "The importance of this work is the explicit hypothesis linking Equatorial Bantu with other languages of the Bantoid subfamily and thus radically redefining Bantu" (Hinnebusch 1989: 459). However, Bennett & Sterk's

classification was proposed on suggested lexical innovations, some of which have been seriously questioned as valid evidence by Williamson (1989b: 249ff); see also Schadeberg (1986).

Another classificatory study inconsistent with traditional notions of Bantoid and Bantu is the extensive lexicostatistical survey performed by Piron (1997; 1998). The different classificatory trees that she produces consistently place Bantu languages outside the Southern Bantoid group, which itself does not show up as a consistent grouping, and neither does Northern Bantoid. In fact, neither does Bantu, in the sense that the lowest node encompassing all her Bantu languages also includes one or other non-Bantu language, like Jarawan and Tikar. Thus she concludes that "[r]epresentations of Bantoid and Bantu in general show that if Bantu is a real entity, it should be considered as a co-ordinate branch with Southern Bantoid, Northern Bantoid and Tikar, and not as a subgroup within a larger Southern Bantoid group, as in many current classifications" (Piron 1998: 72). However, her strong reliance on the methodology of lexicostatistics gives her conclusions less credence.

### 2.2.5 The putative typological cohesion of the Bantu group

There are some structural-linguistic characteristics that putatively tie the Bantu languages together. The four most common criteria that keep recurring in definitions of Bantu include the following:[23]

1) a fairly simple and symmetric vowel system;
2) a complicated system of noun classes indicated by prefixes;
3) a vocabulary that to some extent can be derived from a hypothetical Proto-Bantu lexicon;
4) an agglutinative word-forming process based on a set of invariable consonant-vowel-consonant roots.

None of these criteria is devoid of problems (see, for instance, Williamson 1971: 248ff). As we will see more fully in the next chapter, the second criterion (which is often seen as one of the best criteria) is to some degree even irrelevant. A few languages that Guthrie (1971) classifies as Bantu clearly lack this feature; for instance, Komo, Pande and Bogɔngɔ have no complicated noun class systems at all.

One consequence of poorly defined borders is that languages of, in particular, zone A are to some extent regarded as Semi- or Sub-Bantu, that is, almost Bantu

[23] The list of criteria given here is a severely simplified one; see Guthrie (1948: 11f) for a more detailed listing.



but not quite. For instance, in the *Linguistic survey of the northern Bantu borderland* (Guthrie & Tucker 1956), Jacquot & Richardson (1957) employ the terms 'Bantu' for languages satisfying the second and third criteria given above, 'Sub-Bantu' for languages that satisfy the third criterion but whose "class and agreement system are merely fragmentary" (idem: 13), and 'Bantoid' for languages not satisfying the third criterion and "which have an elaborate system of class prefixes and agreements showing no regular relationship to the Bantu classes" (idem: 14). Tucker & Bryan (1956: 138) use the label 'Partly Bantu' as a cover-term for Sub-Bantu and Bantoid languages, which thus seems to equal Johnston's use of 'Semi-Bantu' (see above). To this, Van Bulck & Hackett (1956: 68) add an undefined group called 'transitional languages' which presumably includes languages showing both Bantu and non-Bantu characteristics. In a review of the *Linguistic survey of the northern Bantu borderland*, Watkins (1956: 633) surmised: "By using a comparable set of criteria, one could class English as 'Sub-Latin' or 'Latinoid' or a 'Latino-Germanic transition language'." All that this tells us, however, is that typology is a poor linguistic-genetic classifier. Still, it has not stopped scholars from using typology for such purposes.

## 2.3 The languages chosen for the present study

With the above fresh in mind: what, then, are the languages used in the present study? The aim of the present study is to examine selected features of the noun class systems in the Bantu languages, and since the focus is to describe the typological variation, for instance, in terms of geographical distribution, I need no genetic subclassification of the Bantu languages. What I need is a language sample that covers as much of the Bantu area as possible, however that might be defined. Thus there is no harm done if one or two non-Bantu languages are included. In fact, many of the features investigated in the present study are also found in closely related languages that are uncontroversially classified as non-Bantu, be they labelled 'Bantoid', 'Benue-Congo', or whatever. But, a limit has to be drawn somewhere. Choosing any proposed boundary between Bantu and non-Bantu involves a certain degree of arbitrariness by definition. Thus for all practical purposes Guthrie's (1967b/1971; 1970) notion of Bantu is as good as any, and so I have simply taken that and used it as my initial language population. To this I have made a few changes, some of which were already noted above; see also supplementary section B.

| A | B | C |
|---|---|---|
| A11 | Londo | – |
| A15 | Western Manenguba | + |
| | Eastern Manenguba | + |
| | Ekanang | + |
| A20 | Duala | + |
| | Oli | – |
| | Pongo | – |
| A32 | Banôho | + |
| | Bapuku | + |
| A34 | Benga | – |
| A40 | Mbɛnɛ | + |
| | Tùnɛn | + |
| | Ngyõ'õ | + |
| | Mandi | – |
| A50 | Fa' | – |
| | Kaalong | – |
| | Bafia | + |
| | Djanti | + |
| | Ngayaba | + |
| A60 | Lùndá | + |
| | Àsém | + |
| | Yambasa | + |
| | Nùbàcâ | + |
| | Nùgùnù | + |
| | Nùkàlònè | + |
| | Mangisa | + |
| | Njòwì | + |
| | Bacɛnga | – |
| | Tùkí | + |
| A72 | Ewondo | + |
| A74 | Bulu | – |
| A75 | Fang | – |
| A79 | Bìsòò | + |
| A81 | Mvumbo | + |
| A82 | So | – |
| A83 | Makaa | – |
| A90 | Kwakum | + |
| | Pol | + |
| | Pɔmɔ | – |
| | Kakɔ | + |
| B11 | Myɛnɛ | + |
| | Mpongwe | – |
| | Galwa | – |
| B21 | Sɛki | + |
| B22a | Western Kɛlɛ | + |
| | Kɛlɛ | + |
| B22b | Northern Ngɔm | + |
| B22b | Southern Ngɔm | + |
| B22c | Pußi | + |
| B23 | Mbangwɛ̃ | + |
| B24 | Wumvu | + |
| B25 | Kota | + |
| B25 | Sake | + |
| | Mahɔngwe | + |
| | Northern Ndasa | + |
| | Southern Ndasa | + |
| B29 | Siɣu | + |
| B31 | Tsɔgɔ | + |
| | Pinji | + |
| B41 | Sira | – |
| B42 | Sangu | – |
| B43 | Punu | – |
| B44 | Lumbu | – |
| B51 | Duma | – |
| B52 | Ndjabi | + |
| B53 | Tsaangi | – |
| B62 | Mbaama | – |
| B61 | Mbete | – |
| (B60) | Ngwi | – |
| B71 | Tɛgɛ-Kali | – |
| B72 | Ngungwel | – |
| B73 | Tsaayi | – |
| | Yaa | – |
| B74 | Ndzindziu | – |
| B75 | Tio | – |
| B77 | Kukwa | + |
| | Ifumu | – |
| B78 | Wuumu | – |
| B81 | Tiene | – |
| B82 | Boma | – |
| B83 | Mfinu | – |
| B85 | Yans | – |
| | East Yans | – |
| B86 | Dzing | – |
| C11 | Ngondi | – |
| C12 | Pande | + |
| | Bogɔngɔ | + |
| C13a | Mbati | + |
| C13b | Ngando-Kota | + |
| C21 | Iboko | – |
| C22 | Akwa | – |
| C32 | Bobangi | + |
| C34 | Sakata | + |
| C35a | Northern Ntomba | – |
| C35a | Southern Ntomba | – |
| C35b | Bolia | – |
| C36 | Pɔtɔ | – |
| | Mpesa | – |
| | Mbudza | – |
| | Lingala | + |
| | Bolɔki | – |
| | Kangana | – |
| C37 | Buja | – |
| C39 | Mabale | – |
| (C30) | Budya | – |
| C41 | Ngɔmbɛ | – |
| C44 | Boa | + |
| C45 | Angba | – |
| (C40) | Northern Binja | – |
| | Southern Binja | – |
| C51 | Mbɛsa | – |
| C52 | Soko | – |
| C54 | Lombo | – |
| C55 | Lokele | – |
| C56 | Fɔma | – |
| C61a | Mɔngɔ | – |
| C61b | Nkundo | + |
| (C60) | Konda | – |
| C71 | Tɛtɛla | – |
| C73 | Nkutšu | + |
| C76 | Ombɔ | – |
| C83 | Bushong | + |
| C84 | Lɛlɛ | – |
| D11 | Mbɔlɛ | – |
| D12 | Lɛngɔla | – |
| D14 | Enya | – |
| D21 | Bali | – |
| D22 | Amba | + |
| D23 | Komo | + |
| D25 | Lega | + |
| D27 | Bangubangu | – |
| D28 | Eastern Hɔlɔhɔlɔ | – |
| D32 | Bira | – |
| D33 | Nyali | – |
| | Vanuma | + |
| | Huku | – |
| D41 | Kɔnzɔ | + |
| D42 | Ndandi | – |
| D51 | Hunde | + |
| D53 | Tembo | – |
| D54 | Bembe | – |
| D55 | Buyu | – |
| D61 | Kinyarwanda | + |
| D62 | Kirundi | – |
| D63 | Fuliiro | – |
| D64 | Sinja | – |
| D66 | Ha | – |
| E11 | Nyoro | – |
| E12 | Tooro | + |
| E13 | Nyankore | + |
| E15 | Luganda | + |
| E16 | Soga | + |
| E21 | Nyambo | – |
| E22 | Haya | – |
| E23 | Zinza | – |
| E24 | Kereße | – |
| E25 | Jita | – |
| E31 | Gisu | + |
| | Kisu | – |
| | Bukusu | + |
| E32 | Hanga | + |
| | Xaayo | + |

Figure 20 Overview of sampled languages
A = map entry point (or equivalent); B = language name;
C = data status ("+" means good, "-" means fragmentary)

*continued on the next page*



| | | |
|---|---|---|
| E32 | Isuxa | + |
| E41 | Logɔɔli | – |
| E42 | Gusii | + |
| E43 | Koria | + |
| E45 | Nata | + |
| E51 | Kikuyu | + |
| E54 | Tharaka | + |
| E55 | Kamba | + |
| E56 | Daiso | – |
| E61 | Rwo | – |
| E62 | Chaga | + |
| E65 | Gweno | – |
| E71 | Pfokomo | + |
| E72a | Giryama | + |
| E72b | Kauma | – |
| E73 | Digo | – |
| E74 | Daßida | + |
| | Sagala | – |
| | Teri | + |
| F11 | Tongwe | – |
| F21 | Kesukuma | + |
| F22 | Kinyamwezi | + |
| F23 | Shumbwa | – |
| F25 | Wungu | – |
| F31 | Nilyamba | + |
| F32 | Remi | + |
| F33 | Langi | + |
| F34 | Mbugwe | – |
| G11 | Gogo | + |
| G12 | Kagulu | + |
| G21 | Tußeta | – |
| G22 | Asu | – |
| G23 | Shambaa | + |
| G24 | Bondei | + |
| G31 | Zigula | + |
| G33 | Zaramo | – |
| G34 | Ngulu | – |
| G35 | Ruguru | – |
| | Luguru | + |
| G36 | Kami | – |
| G37 | Kutu | – |
| G41 | Tikuu | – |
| | Cimwiini | – |
| | Bajuni | + |
| G42 | Kiswahili | + |
| | Unguja | + |
| G43 | Phemba | + |
| G44a | Shingazidja | + |
| G44c | Shimaore | + |
| G51 | Pogolo | – |
| G61 | Sango | – |
| G62 | Hehe | – |
| G64 | Pangwa | – |
| G65 | Kinga | – |
| (H00) | Kituba | + |
| H11 | Beembe | – |
| H12 | Vili | + |
| H16b | Central Kikongo | + |
| H16c | Kiyombe | + |
| H16f | Laadi | + |
| H21 | Kimbundu | + |
| H22 | Sama | – |
| H23 | Bolo | – |
| H31 | Yaka | – |
| H33 | Hungu | – |
| H41 | Mbala | – |
| H42 | Hunganna | – |
| K11 | Ciokwe | + |
| K12a | Luimbi | + |
| K12b | Ngangela | + |
| K13 | Luchazi | + |
| K14 | Lwena | + |
| K15 | Mbunda | – |
| K21 | Silozi | + |
| K31 | Luyana | + |
| K33 | Rukwangali | + |
| K37 | Kwangwa | – |
| K38 | Rugciriku | + |
| K42 | Cisubiya | + |
| K43 | Thimbukushu | + |
| L11 | Pende | + |
| L12 | Holu | – |
| | Samba | – |
| L13 | Kwese | – |
| L21 | Kete | – |
| L23 | Songe | – |
| (L20) | Mbagani | – |
| L31 | Luba-Kasai | – |
| L32 | Kanyok | + |
| L33 | Luba-Katanga | – |
| L34 | Hemba | – |
| L35 | Sanga | – |
| L39 | Lwalu | – |
| L41 | Kaonde | – |
| L51 | Salampasu | – |
| L52 | Lunda | + |
| L53 | Ruund | – |
| (L50) | Ndembo | – |
| L62 | Nkoya | – |
| M11 | Pimbwe | – |
| M13 | Fipa | + |
| M15 | Mambwe | – |
| M21 | Wanda | – |
| M22 | Mwanga | – |
| M23 | Nyiha | – |
| M25 | Safwa | – |
| M26 | Iwa | – |
| M31 | Nyekyosa | – |
| M41 | Taabwa | – |
| M42 | Icibemba | + |
| M51 | Biisa | – |
| M52 | Lala | – |
| M54 | Lamba | + |
| M61 | Lenje | – |
| M63 | Ila | – |
| M64 | Plateau-Tonga | + |
| N11 | Manda | – |
| N12 | Ngoni | + |
| N13 | Matengo | – |
| N14 | Mpoto | – |
| N15 | Tonga | – |
| N21 | Tumbuka | + |
| N31a | Chinyanja | + |
| N31b | Chichewa | + |
| N31c | Manganja | – |
| N41 | Nsenga | – |
| N42 | Kunda | – |
| N43 | Nyungwe | + |
| N44 | Sena | – |
| N46 | Podzo | – |
| P13 | Kimatuumbi | + |
| P14 | Ngindo | – |
| P21 | Ciyao | + |
| P22 | Mwera | – |
| P23 | Kimakonde | + |
| P24 | Ndonde | – |
| P25 | Maßiha | – |
| P31 | Emakhuwa | + |
| P32 | Lomwe | – |
| P34 | Cuabo | – |
| R11 | Umbundu | + |
| R13 | Nyaneka | + |
| R14 | Nkumbi | – |
| R21 | Oshikwanyama | + |
| R22 | Oshindonga | + |
| R23 | Oshikwambi | + |
| R25 | Oshimbalanhu | + |
| R31 | Otjiherero | + |
| R41 | Siyeyi | + |
| S12 | Zezuru | + |
| S13 | Manyika | – |
| | Teße | – |
| S14 | Karanga | + |
| S15 | Ndau | – |
| S16 | Ikalanga | + |
| S21 | Tshivenda | + |
| S31 | Setswana | + |
| S31d | Sekgalagadi | + |
| S32 | Northern Sotho | + |
| S33 | Sesotho | + |
| S39 | Pai | + |
| S41 | Isixhosa | + |
| S42 | Isizulu | + |
| S43 | Siswati | + |
| S44 | Sindebele | + |
| S51 | Xitshwa | + |
| S52 | Xigwamba | + |
| S53 | Xitsonga | – |
| S54 | Xironga | + |
| S61 | Cicopi | + |
| S62 | Gitonga | – |

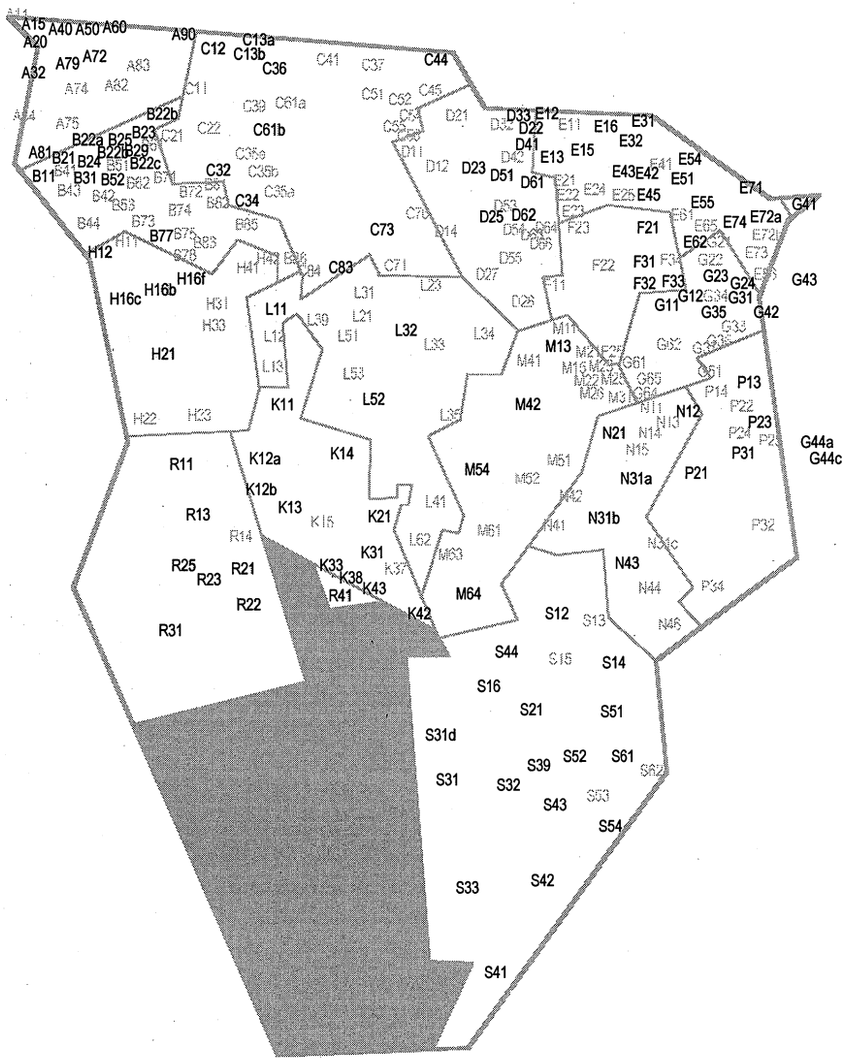


Figure 21 Languages for which there is a reasonably complete amount of data
The highlighted map entry points correspond to plus-signs in the two-page table in figure 20.



Guthrie's (1971: 28ff) inventory of Bantu languages includes about 450 entries. To these I have added languages lacking in Guthrie's list but which are generally accepted as Bantu, for instance, Rugciriku, Thimbukushu, and others. Together these constitute what might be labelled the 'language population'. For many of the languages contained in this language population, however, there are no data available and for others there are very little. Hence the actual number of languages included in the present study, the so-called language sample, is much smaller. Languages for which I have managed to gather data are referred to as 'total language sample', and this comprises 333 named languages. These are tabulated in figure 20. They are also given in supplementary section A together with the bulk of the relevant data concerning their noun class inventories. However, the quality and/or the quantity of noun class data is unevenly distributed among the sampled languages, as evident when browsing through supplementary section A. Of the 333 named languages, 159 are represented by noun class data that could be said to be fairly reliable and complete. These 159 languages are marked with a plus-sign in figure 20 and they constitute what is here called 'restricted language sample'. The majority of claims made in especially chapter 3, but also chapter 4, are based on this restricted sample.

The aim has been to cover as much of the Bantu area as possible. Fortunately, when it comes to Bantu noun class data, there is seemingly plenty of material around, since the noun class system is the one feature constantly described by Bantuists doing descriptive work. Thus the resulting geographical coverage has turned out to be quite acceptable (even though the quality of description and amount of details vary greatly), despite initial fears of a geographically biased distribution. There are nonetheless some disturbing gaps when looking at how the restricted language sample is distributed (see figure 21), particularly in zones C, D, L, M and possibly also P. The major reason for these lacunae is the fact that not all languages have been described. Also, many descriptions are not readily available, being house publications, local journal articles, and so on. At any rate, all zones are represented by at least three languages in the restricted language sample.

# Chapter 3

# Bantu noun class systems

The present chapter is, together with chapter 4, aimed at the first goal set above, which is to describe the typological variation of Bantu noun class systems. Chapter 3 is structured so as to function as a general introduction to the most characteristic features inherent in the Bantu noun class systems; that is, it aims to describe what they are and how they work, while chapter 4 focuses in detail on some aspects of the issues brought up in this chapter. I will mainly focus on synchronic typology of Bantu noun class systems although there are a few diachronic reasonings inserted here and there. Diachronic/historical issues are not, however, pursued with consistency here (nor in chapter 4). Instead they constitute the main subject of chapter 5.

It needs to be emphasized that the present chapter is somewhat arbitrarily structured, being dictated by convenience of presentation rather than anything else. There is first a distinction made between traditional and reduced noun class systems. By distinguishing these two types and focusing on the former, as I will mainly do here, admittedly runs the risk of perpetuating what Mufwene (1994: passim) fondly calls 'the Bantu canon'. The distinction is, however, unavoidable since it is a necessary seed towards a full(er) typology presented at the end of the chapter. In between, there are sections and subsections dealing with various aspects of morphology, semantics and syntax.

## 3.1 Traditional and reduced noun class systems

All modern Bantu noun class systems, it is assumed, go back to an original Proto-Bantu system. There are various reconstructions of this proto-system. These are reviewed and discussed more fully in chapter 5 so I will not go into great details here. A fairly non-controversial overview of proposed Proto-Bantu noun classes is displayed in the table in figure 22. Most proposed reconstructions count about 20



| NOUN CLASSES | | COMMON SEMANTICS OF THE NOUN CLASSES |
|---|---|---|
| *mù- | 1 | humans |
| *ø- | 1a | kins, personified animals |
| *βà- | 2 | honorific, plural to classes 1 and 1a |
| *βà~βɔ̀- [24] | 2x | honorific, plural to class 1a |
| *mù- | 3 | trees, plants, inanimates |
| *mì- | 4 | plural to class 3 |
| *lì- | 5 | miscellaneous, paired things, augmentatives |
| *mà- | 6 | liquids, collectives, plural to classes 5, 9, 11, 14 and 15 |
| *kì- | 7 | inanimates, manner/style, diminutives, augmetatives |
| *βɟ̀- | 8 | plural to class 7 |
| *nì- | 9 | animals |
| *lɟ̀-nì- | 10 | plural to classes 9 and 11 |
| *lù- | 11 | long thin things, abstracts |
| *kà- | 12 | diminutives |
| *tù- | 13 | plural to class 12 |
| *βù- | 14 | abstracts, mass nouns, plural to class 12 |
| *kù- | 15 | infinitives |
| *pà- | 16 | locatives, 'near' or 'explicit' |
| *kù- | 17 | locatives, 'remote' or 'general' |
| *mù- | 18 | locatives, 'inside' |
| *pɟ̀- | 19 | diminutives |
| *ʏù- | 20 | augmentatives, diminutives |
| *ʏɟ̀- | 21 | augmentatives, pejoratives |
| *ʏà- | 22 | plural to class 20 |
| *ì- | 23 | locative, unspecified |

Figure 22 A possible set of noun classes and noun prefixes in Proto-Bantu
Based on Meinhof (1932), Meeussen (1967), Welmers (1973) and Hinnebusch (1989).

noun classes in Proto-Bantu. Since most modern Bantu languages exhibit fewer noun classes than that (see figure 23),[25] all or at least most modern Bantu languages are, in terms of number of existing noun classes, best regarded as having

[24] What is labelled '2x' here is a convenient cover term for two separate classes that could be labelled '2a' and '2b' respectively, as is sometimes done; see Welmers (1973: 165). The distinction between these classes is in the vowel quality; the former has a low *a*-like vowel, the latter a back *o*-like vowel. See more on these classes in chapters 4 and 5.

[25] The numbers in figure 23 are based on the data as they appear in supplementary section A. These are not definite calculations and should be read as "X plus/minus 1 or 2" since fully reliable data are not available for every language. Note also that the so-called locative classes (16, 17, 18 and 23) are not included in these calculations.

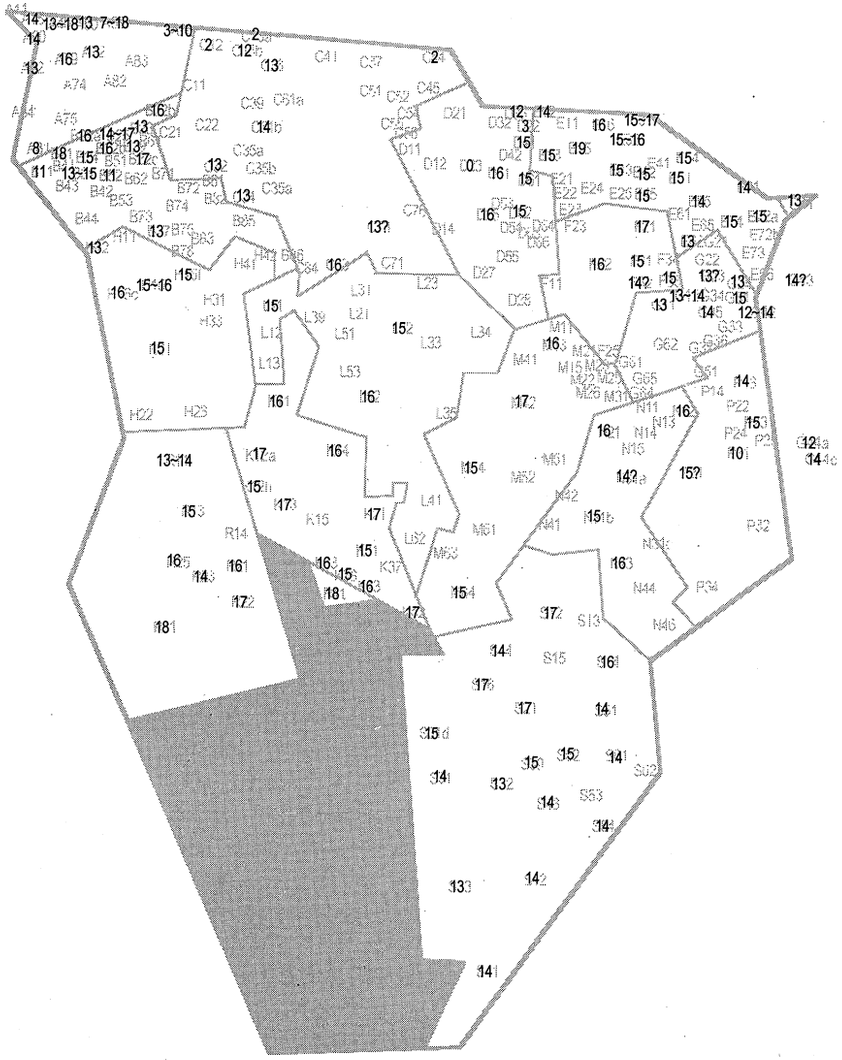


Figure 23 The number of (prefix-based) noun classes in various Bantu languages
Locative classes 16, 17, 18 and 23 are excluded from the above counts.



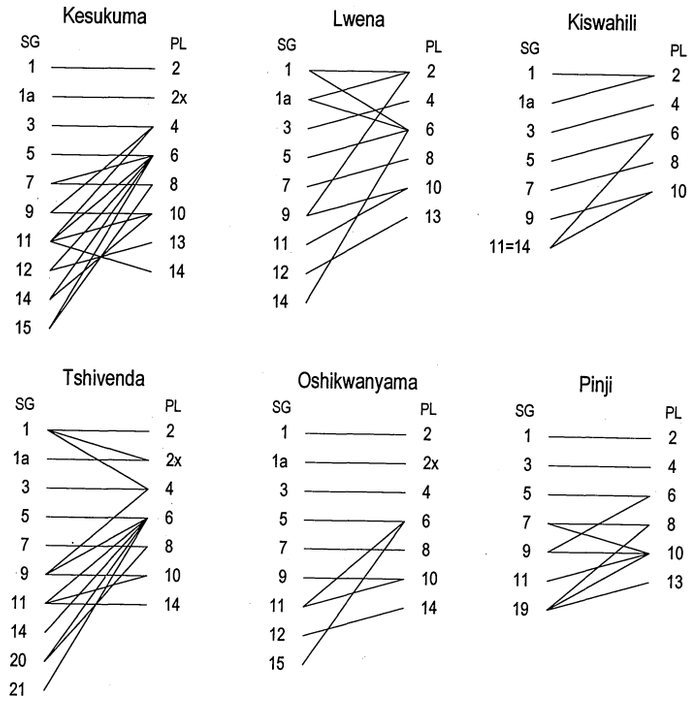



Figure 24 Noun class pairings in six Bantu languages
Single classes are here excluded.

noun class systems that are reduced to a greater or lesser degree. In a handful of languages, predominantly of the northern Bantu area, there are considerably reduced noun class systems. Komo, for instance, has no noun classes at all (Guthrie 1971: 42), Mbati has only 2 (Richardson 1957: 39), and Kakɔ only 3 (Guthrie 1971: 34). The majority of sampled languages, however, exhibit 7 (Mangisa) or more noun classes. The full range of noun classes among the sampled languages runs from 0 to 19, if we exclude the so-called locative classes since the existence of these is sometimes difficult to verify (see further below).

By way of comparison, in Lwena we find a system of 15 noun classes which group into at least 12 singular/plural pairings, in Kesukuma 18 noun classes group into at least 18 singular/plural pairings, and in Kiswahili 12 classes group into 8 pairings (see figure 24). Some noun class pairings occur more frequently across the

entire Bantu area than do others; for instance, pairings 1/2, 3/4, 5/6, 7/8, 9/10, 11/6, 11/10, 12/13 and 14/6 are very common. There are of course other possible pairings, some of which are rare and unusual, such as the 1/6 pairing in Lwena and the 15/8 pairing in Kesukuma. Unfortunately there are few frequency data regarding the use of noun classes in individual Bantu languages, that is, except for a few languages such as Kesukuma, for which Batibo (1985: 213f) offers some frequency data. In a corpus of 800 Kesukuma nouns, more than half, or 56.5%, are either 9/10 nouns (28.9%) or 5/6 nouns (27.6%). If we add the 3/4 nouns (12.3%), the 1/2 nouns (11.4%) and the 11/10 nouns (9.3%) that would comprise almost nine tenths (89.5%) of Batibo's Kesukuma corpus. These statistics conform well with what seems to be true for the majority of Bantu languages.[26] Especially pairings 1/2 (or 1a/2), 5/6 and 9/10 seem to be very productively used all over the Bantu area, which is evident in, for instance, how loan words are adapted (see further below). The distribution of noun classes and noun class pairings is detailed more fully in chapter 4.

The number of existing noun classes and/or pairings is not, however, a very good feature for typologizing noun class systems, at least not when looking for fine-grained categorizations. If a language has, say, 15 noun classes and at some point in its history reduces this number by one or two, for whatever reason, the noun class system as a whole is not likely to change in its basic grammatical functions. Some nouns are likely to be reallocated into new classes but we would still have a noun class system that works basically the same as it did before the change took place. Still, there are good grounds for seeing the highly reduced systems (the ones with up to 3 noun classes) as a category separate from the other, less reduced, systems (the ones exhibiting 7 or more noun classes). The former will here be referred to as 'reduced noun class systems', the latter as 'traditional noun class systems'.

In reduced noun class systems, the main function of the noun classes (if we may call them that) seems to be to distinguish singular from plural and/or animates from inanimates. In Kakɔ, for instance, we find an unmarked singular class and two plural classes for animates and inanimates respectively (Guthrie 1971: 42). In Amba, only three classes seem to exist, one for singulars, another one for plurals and a third for infinitives, the last being unmarked (idem). The reduced systems are reduced both quantitatively (number of noun classes) and qualitatively (basic function of the system), while the traditional systems are reduced only quantitatively (to a higher or lesser degree). The former systems would seem to fall outside the scope of a study focusing on grammatical gender, though not

26 See Maganga & Schadeberg (1992: 73) for similar data on Kinyamwezi.



necessarily outside the scope of a study dealing with noun classes. Be that as it may, this two-way classification is fairly crude and a more elaborate one will be presented at the end of this chapter, where the reduced systems are discussed in more detail. Until then, however, I will mainly focus on the traditional systems.

## 3.2 Noun class affixes and other related morphemes

In chapter 1, it was mentioned that Bantu noun classes are morphologically realized with various affixes appearing on nouns, pronouns, adnominals and verbs. I will refer to these morphological markers jointly as 'noun class affixes', which thus covers both noun prefixes (the ones appearing on nouns) and concords (the rest). In addition to the noun class affixes there is one particular morphemic element that keeps occurring together with the noun prefix in many languages, and which is not part of the noun class system. This is sometimes called simply the 'initial vowel', or more commonly the 'augment'. I prefer the latter term since its form is not always that of a vowel.

### 3.2.1 The noun class affixes and their meanings

The noun class affixes that appear on nouns, pronouns, adnominals or verbs, can usually provide us with certain types of information. For instance, on the basis of the form of the subject concord *-ky-* in the Kamba verb phrase *nīkya: valūka* 'it has fallen' (Whiteley & Muli 1962: 34),[27] we can deduce that the grammatical subject must belong to noun class 7, that it is grammatically singular, and that it is grammatically a third person item. Thus we get information about gender (here reinterpreted as noun class belonging), grammatical number, and grammatical person.[28] For this reason, the noun class affixes are often referred to as 'gender-number-person markers', or 'GNPs' for short. The term that I will use when referring to these morphemes is 'noun class affix', which is better in that it is noncommittal as to any semantics involved.

Not all people agree that noun class affixes carry the just-mentioned meanings. Carstens (1993), for instance, assumes that noun prefixes (or noun class affixes?) are specified only for grammatical number. While information about noun class belonging is found as inherent only in the noun stem, there is a set of syntactic 'redundancy rules' specifying what prefixes are to be used with noun

27 The tilde signifies a vowel quality, not nasalization.

28 But see on the so-called locative classes further below. The noun class affixes often also provide some information about the syntactic status of the word in which they occur, since the forms of the different affixes are often, though not always, different depending on whether they occur on nouns, pronouns, adnominals or verbs.

stems belonging to any given noun class.[29] That noun class belonging is an inherent property of the noun is true, of course, but we cannot ignore the fact that information about noun class belonging is deducible from the noun class affixes. If we consider only noun prefixes, we might run into problems caused by homophony, for instance, in those languages where the noun prefixes of classes 1 and 3 are identical. However, if we take into account the noun prefix as well as the concords, that is, the entire set of affixes associated with any given noun class, the problem vanishes, simply because different noun classes are morphologically realized with distinctive series of affixes. Thus noun class belonging is a deducible piece of information from the noun class affixes, although perhaps not unequivocally so in every single context.

In sharp contrast to Carstens' analysis, Amidu (1997: 130) asserts that grammatical number is "a property of lexical words not of affixes." I find no reason to adopt his view to its full extent, though, since it would obscure the fact that we can indeed deduce grammatical number from the noun class affixes, at least for the majority of nouns. There are problems, no doubt, but this is not uncommon for languages. There is seldom (or never?) a perfect correlation between the formal means used in marking grammatical number and the meanings derived from the use of these means. One of the specific problems here is to what extent Bantu noun class pairings reflect a singular/plural opposition. Mufwene (1980b) comes to the conclusion that they do not. Analysing 5/6 nouns in Lingala, he prefers the opposition 'individuated' versus 'non-individuated' instead. The former corresponds to singular count nouns, the latter to plural count nouns and mass nouns. Thus the class 5 *li*-prefix marks not 'one X', but rather 'a unit of a mass of X', which leads him to the conclusion that non-individuated nouns are unmarked in relation to the individuated ones. Mufwene does note, however, at least one group of nouns which appear to be exceptions to this, namely, a group of abstract nouns found in class 5, like *li-búngá* 'forgetfulness', *li-memía* 'respect' and *li-lema* 'fertility' (idem: 1041). These are clearly non-individuated.

Specifically with regard to abstract nouns, these are often found in class 14 in many Bantu languages, and so also in Lingala. Traditionally these are considered singular nouns only, and as such they normally lack plural forms. In Mufwene's analysis, these pose no problem since we only need to drop the traditional label 'singular' and treat this single class on a par with class 6, and use the label 'non-individuated' instead. As the traditional 'plural classes', also class 14 abstracts in Lingala "combine grammatically with the quantifier *míngi* 'a lot' but not *mókó*

[29] "Noun Class prefixes are added to nouns as number morphology, by gender-specific redundancy rules. While gender is a lexical property of nouns, number itself is a functional head, which selects [Noun Phrase] complements" (Carstens 1993: 151).



'one' " (idem: 1045). However, in Lingala, as in many Bantu languages (see next section), we also find a small number of singular count nouns in class 14. In Lingala, there is at least one, namely, *bwáto* 'canoe', the plural of which is found in class 6 as *máto* (Guthrie & Carrington 1988: 19). These words may, of course, be regarded as exceptional but it is a fact that abstract nouns often occur in classes which are otherwise traditionally regarded as singular classes, like classes 3 and 11. (See more on this in the next section.)

But the problem in Bantu languages is no more (or less) than in, say, English, where *-s* appears on words like *headquarters* and *doubles* with obvious singular meaning. Mass nouns like *water* and *butter* are not usually used in a grammatically plural form unless there is an accompanying change of meaning other than mere pluralization. Nevertheless, we can still profitably talk of *-s* as a plural marker in English. In Bantu languages, the conceptual distinction between 'one X' and 'more than one X' seems clearly to be grammaticalized in the sense that the grammatical system of noun class affixes is used to mark such a distinction, at least for most nouns. However, that a traditional singular/plural distinction is not sufficient to explain the full use of the morphological markers involved is also quite clear.[30] This is not a study aiming at developing a new grammatical framework for Bantu studies, so I will retain the traditional terminology involving 'singular', 'plural', 'mass', 'countable', 'uncountable', and whatever. The use and application of these terms are no more or less problematic than for other languages.

### 3.2.2 One prefix or two, or even more

Most commonly, there is only one noun class affix on any given word. However, it is not unusual for more than one prefix to appear on a noun.

*maghuthu* — Thimbukushu (Fisch 1977: 36)
ma ghu thu
NP.6 NP.14 Kameldornbaum (Ger.)
'(several) camel thorn trees'

In the above example, the plural prefix has been added onto the singular noun form *ghuthu*, with prefix and all. In Thimbukushu, this is the normal plural-marking process for singular class 14 nouns, while for nouns in other classes a different process takes place, namely, one in which the plural prefix replaces the singular prefix.

[30] But on the other hand, the singular/plural distinction is not sufficient to explain the use of *-s* in English either; see, for instance, Hirtle (1982) and Svensson (1998).

*dipya* — Thimbukushu (idem: 26)
di pya
NP.5 Feld (Ger.)
'field'

*mapya*
ma pya
NP.6 Feld (Ger.)
'fields'

The first type of plural-marking is sometimes termed 'additive' since the plural prefix is added onto the singular prefix. The second type is sometimes termed 'substitutive' since the plural prefix substitutes for the singular one. These are also the terms I will use here. The morphological processes in question do not concern the formation of plurals only, but also so-called secondary nouns (which are discussed separately in a section further below).[31] Their respective uses or functions are not well studied,[32] at least not from a comparative perspective (though see Kadima 1969: 96ff), and it lies outside the scope of the present study to do so too. Below, I will merely draw attention to some important points.

The choice of either substitutive or additive plural-marking seems partly arbitrary, at least to the extent that the processes in question cannot regularly be tied to different types of meanings or functions on any consistent basis.[33] Usually we find both processes operating in any given language. In Chinyanja, for instance, the majority of class 5 nouns form plurals with a substitutive process, so that *lilalanji* 'orange' becomes *malalanji* in the plural (Price 1946: 25). This is not true for all class 5 nouns, though, some of which use an additive process instead, like *lilime* 'tongue' which becomes *malilime* in the plural (idem: 35). Typically nouns of classes 1, 3, 5 and 7 form plurals with a substitutive process, while nouns of classes 14 and 15 form plurals with an additive process.[34] Worth pointing out is that when class 6 is used to form plurals of non-5 nouns (that is, singular nouns belonging to classes other than 5), an additive process takes place more often than not.

31 Stump (1993) provides a highly formalized model for the uses of additive and substitutive processes involving diminutive prefixes of classes 12 and 13 in Chinyanja and Kikuyu, while Odden (1996: 26ff) describes, in less formalized terms, the same phenomenon in Kimatuumbi.

32 The more comprehensive grammars for individual languages usually do contain valuable data on this issue.

33 This is not to say that there are no definable rules governing this phenomenon, only that no one has come up with any yet, at least none that are generally accepted.

34 Vossen (1991/1992: 369) notes an interesting plural-marking for singular class 14 nouns in the Ngamiland dialect of Sekgalagadi, namely, by way of doubling the class 14 prefix.



The most oft-occurring additive plural marking concerns plurals of class 9 nouns. The singular prefix of these nouns is very often a so-called homorganic nasal (written 'N'), that is, a nasal that adapts phonologically to an immediately following consonant.[35] In Northern Sotho, for instance, the form of the class 9 prefix is either *N-* or *ø-* (zero). The nasal form is realized differently depending on the initial consonant of the noun stem, as in the following examples:

*nta* — Northern Sotho (Lombard et al. 1985: 44+47)
N ta
NP.9 louse
'louse'

*mpša*
N pša
NP.9 dog
'dog'

The plurals of the above singular nouns are found in class 10, the prefix of which is *di-*, and here we find an additive process taking place.

*dinta*
di N ta
NP.10 NP.9 louse
'lice'

*dimpša*
di N pša
NP.10 NP.9 dog
'dogs'

That an additive marking is so often encountered with plural class 9 nouns is, no doubt, a consequence of a peculiar phonetic fact about these homorganic nasal prefixes, namely, that contrary to other prefixes they seldom constitute syllables of their own. Thus a homorganic nasal prefix is phonetically fused, so to speak, with the following consonantal segment.

Interestingly, a composite plural prefix form (like the Northern Sotho *diN-*) is not only used with class 9 nouns. In some languages, this particular composite

35 The noun prefixes of classes 3, 4 and others, also display homorganic nasal forms in some languages, particularly in the north-west, but the class 9 prefix is the most widespread in this respect.

form is extended also to non-class 9 nouns that form their plurals in class 10. In Sindebele, for instance, class 10 functions as a plural class for singular classes 7, 9 and 11. The class 10 prefix has the form *izi-* when plural to class 7 (*isi-*), and *iziN-* when plural to classes 9 (*iN-*) and 11 (*ulu-*). It is the latter circumstance that is of interest here, namely, that the composite form with a nasal, or the 10.9 prefix (as it is sometimes referred to), is also used to pluralize class 11.

*uluti* — Sindebele (Pelling & Pelling 1974: 33)

| | |
|---|---|
| ulu | thi |
| NP.11 | stick |
| 'stick' | |

*izinti*

| | | |
|---|---|---|
| izi | N | thi |
| NP.10 | NP.9 | stick |
| 'sticks' | | |

Possibly this points towards the 11/10(.9) pairing as being a recent innovation. It could well be that singular class 11 nouns formed their plurals in some other class formerly, at least in those languages where we find 10.9 prefix forms used.

Plural-marking by way of substitution or addition is partly irrelevant for the purposes of the present study, and so whenever I refer to a pairing like '14/6' it is not to be taken as indicative of a substitutive pluralization. It means simply that the outermost prefix in the plural noun is that of class 6. Normally it is the outermost prefix that is in grammatical agreement with any concords. This is not without exceptions, however.[36] With regard to Lunda, Guthrie (1956: 555) says: "Words with a multiple prefix like *atu-* [= *a-* of class 2 and *tu-* of class 13] regularly require agreement with *a-* in certain types of words and with *tu-* in others." Unfortunately he provides no further details, but taken at face value, it might not be too daring to relate this to the use of generalized plural-markers in some languages, an issue that I will discuss more fully at the end of this chapter.

### 3.2.3 Augments

Noun prefixes are usually monosyllabic, as is the *ki*-prefix in the Kiswahili word *kitabo* 'book'. In quite a number of Bantu languages, however, we find

[36] In particular, the so-called locative classes do not always follow this pattern; see, for instance, Demuth & Mmusi (1997) and Mathangwane (1998) for some interesting analyses on this. However, locative classes behave on the whole differently than do other noun classes, an issue that is discussed more fully below. Thus I ignore them at present.



| NOUN CLASS | LANGUAGES WITH AUGMENTS | | | LANGUAGES WITH NO AUGMENTS | |
|---|---|---|---|---|---|
| | Bukusu | Otjiherero | Isizulu | Nkutšu | Kimatuumbi |
| 1 | *o-mu-* | *o-mu-* | *u-mu-* | *u-* | *mụ-* |
| 2 | *ba-ba-* | *o-va-* | *a-ba-* | *wa-* | *ba-* |
| 3 | *gu-mu-* | *o-mu-* | *u-mu-* | *u-* | *mụ-* |
| 4 | *gi-mi-* | *o-mi-* | *i-mi-* | *(w)i-* | *mị-* |
| 5 | *di-di-* | *e-ø-* | *i-li-* | *di-* | *lị-* |
| 6 | *ga-ma-* | *o-ma-* | *a-ma-* | *wa-~ma-* | *ma-* |
| 7 | *si-si-* | *o-tji-* | *i-si-* | *e-~ì-* | *kị-* |
| 8 | *bi-bi-* | *o-vi-* | *i-zi-* | *di-* | *j-* |
| 9 | *e-n-* | *o-N-* | *i-N-* | *n-* | *ñ-* |
| 10 | *ci-n-* | *o-zoN-* | *i-ziN-* | *n-* | *ñ-* |
| 11 | *du-du-* | *o-ru-* | *u-lu-* | *lu-* | *lụ-* |
| 12 | *xa-xa-* | *o-ka-* | — | — | *ka-* |
| 13 | — | *o-tu-* | — | *tu-* | *tụ-* |
| 14 | *bu-bu-* | *o-u-* | *u-bu-* | — | *bụ-* |
| 15 | *xu-xu-* | *o-ku-* | *u-ku-* | — | *kụ-* |

Figure 25 Noun prefixes with and without augments in five Bantu languages
"~" indicates variant forms. Sources as indicated in supplementary section A.

polysyllabic prefixes, most often disyllabic, attached on the nouns. (I disregard composite prefixes here; see previous subsection.) These comprise, besides a noun prefix, also a pre-prefix. The latter has been called various things, often simply 'initial vowel' or 'pre-prefix'. However, 'augment' seems to be the currently preferred label, and so I use that here too. In figure 25, noun prefix forms in five languages are exemplified; three of these languages use augments.

In the Luganda word *èkítábó* 'book', there is an augment *è-* followed by the noun prefix *-kí-* of class 7 followed by the noun stem *-tábó* (Hyman & Katamba 1993: 211).

| *èkítábó* | = | *è* | + | *kí* | + | *tábó* |
|---|---|---|---|---|---|---|
| | | ↑ | | ↑ | | ↑ |
| | | augment | | noun prefix | | noun stem |

The form of the augment is that of a single vowel or a consonant plus vowel. In Otjiherero it has the form of a constant vowel *o-*, which is used with all noun

prefixes (except one), as in *omu-*, *ova-*, *otji-*, *oka-*, and so on. The augment in Isizulu, on the other hand, is decided on the basis of vowel harmony rules, as are the augments *u-*, *a-* and *i-* in, for instance, *umu-*, *aba-* and *imi-* (see figure 2). There seems to be little restriction as to the geographical distribution of augment-using languages. In fact, they are "distributed all over the Bantu area (except in the extreme North-Western parts)" (De Blois 1970: 152).

In some (many?) languages, the augment seems to have no particular semantic meaning, or possibly it has lost a previous well-defined meaning, being a more or less obligatory addition to the noun prefix; at least its function seems to be difficult to pinpoint accurately. For instance, Sommer & Vossen (1995: 454, note 8) say of the augment in the Ngamiland dialect of Siyeyi that its "grammatical function ... is not (or no longer) clear." Their many examples show that the same noun can appear both with and without an augment depending on the informant. Even the same informant sometimes uses augments and sometimes not, in what would appear to be identical contexts. Thus we find *omùsí* 'ashes' with an augment *o-* and *ríshó* 'eye' without any augment, both forms elicited from the same informant, and the form *ìríshó* 'eye' with an augment *ì-* given by another informant (idem: 461ff; see also Vossen 1991/1992: 351f).

For some languages, however, a specific function can be deduced. Says De Blois (1970: 152): "In a majority of the augment[-using] languages the augment is dropped in some specific grammatical constructions", most commonly together with proper names, kinship terms, vocative constructions, predicative constructions, and nouns preceded by negative verb forms. In other languages, the augment seems to have some semantic/pragmatic function related to definiteness, specificity and/or particularization (idem: 131f).[37]

Definiteness is clearly related to the use of augments in many languages.[38] Batibo (1985: 246), for instance, terms the augment in Kesukuma 'voyelle du défini' (≈ 'vowel of definiteness') and says that its function is to definitize the noun with which it is used. Similarly, Fivaz (1986: 33) says of the augment in Oshindonga that it rather weakly indicates "the specificity or definiteness of the referent". He refers to it alternatively as 'definitiser', 'determiner' and 'weak determiner' (idem: 33+34+85). Likewise, Fourie (1993: 8) terms the augment in the closely related Oshimbalanhu 'preprefix/definitiser'. Contrary to this, however, Hyman & Katamba (1993) come to the conclusion that the augment in Luganda can only be described properly if we abandon assumptions about definiteness and

[37] Meinhof derived the augment etymologically from a copula of some sort (see Meinhof 1948: 68ff), something that Greenberg (1951; and elsewhere) strongly criticized. The latter author saw the augment as the result of a mere reduplication of the noun prefix; see also Gregersen (1967: 45ff).

[38] Already Bleek (1869: §§461ff) referred to a similar function for what he called the 'initial vowel' in Xigwamba. He compared it to the use of articles in Indo-European languages and claimed it to be historically derived from a pronoun. This was disbelieved by the contemporary Xigwamba authority Berthoud (1884: 60f).



specificity. In their view, it is the augment-less construction that is the marked one and which therefore needs to be explained. Furthermore, they explain that the augment "is licensed not by semantics or pragmatics, but rather by syntax" (idem: 255), particularly by features such as 'negation' and 'focus'. Possibly this or a similar explanation can be extended also to other augment-using languages. Be that as it may, the issue of the augments falls outside the scope of the present study, so I leave it at this. Unless otherwise noted, the term 'noun prefix' refers to noun prefixes with or without augments, whatever the case may be in any particular context. Whenever I need to distinguish them, I use the term 'augmented prefix' to refer to prefixes with augments.

## 3.3 Bantu noun classes contentwise

The type of semantics that I will discuss in the present section is that which is related to noun class belonging (see above); that is, I will not discuss grammatical meanings like 'number' and 'person'. In most grammars, the Bantu noun classes are defined in relation to various extra-linguistic factors such as 'humanness', 'animateness', 'abstractness', and so forth. The main purpose here is to show that this is not a penny-plain task.

### 3.3.1 The search for semantics

There is at present no view towards an easy and generally accepted method of describing the system of Bantu noun classes within clear-cut semantic models, especially such that would apply to all Bantu languages. Says Richardson (1967: 375): "Those who are concerned with the entire Bantu family will admit that the likehood of establishing a viable master-system diminishes as the field of comparison widens." In fact, problems arise irrespective of whether one is dealing with an individual noun class system, a meta-system applicable to all or many noun class systems, or a proto-system for an assumed Proto-Bantu.

When it comes to individual noun classes in individual Bantu languages, one very often finds that defining noun classes has not been an easy task for the grammarian. A group of nouns that fall into one or another noun class seldom constitute semantically coherent categories. Thus virtually all noun classes contain what grammarians label 'miscellaneous nouns' (or something similar). While most grammarians define noun classes morphologically, that is, based on the form of the noun class affixes, many grammarians go beyond this and try to justify the existence of the noun classes with semantic parameters, an activity strongly opposed and criticized by Amidu (1997). Still, the pursuit of regular semantic

models or explanations is a process not completely in vain. The system of Bantu noun classes is not completely devoid of regular semantic tendencies. Some recur in many, most and occasionally even all Bantu languages, as we will see below.

One such tendency concerns the distinction between animates and inanimates. Typically animate classes are class 1 which in all Bantu languages contains nouns denoting human beings, while class 1a, where it exists, contains nouns denoting certain kinship terms, personified animals (when used in fables and tales) and various other nouns. Class 9 is most often the class where we find nouns denoting animals. Class 7 seems to be a typical thing-class, containing mostly inanimate objects, such as tools, instruments, utensils and other things. Other oft-occurring semantic regularities concerns abstract nouns mostly found in class 14, but not seldom also in class 3. The infinitive form of the verb, which is and functions as a noun in Bantu languages (triggering its own agreement), is usually classified in class 15, but also in other classes. Trees and plants are often found in class 3, paired things in class 5, elongated (long and thin) things in class 11, and so forth. There is, however, much room for irregularities and idiosyncracies of individual languages, which even a brief comparative study soon makes evident. Many nouns denoting people, animals, instruments, abstracts, and so on, are found scattered in various noun classes. Many apparently idiosyncratic classifications can sometimes be satisfactorily explained. This, however, is usually only true as long as we deal with individual languages.

The many descriptions and explanations of individual noun class systems usually entail some kind of semantic feature analysis. For instance, Der-Houssikian (1974) explains the Kiswahili noun class system with reference to the features 'human', 'animate', 'mass' and 'sentient' (biological entities that are neither human nor animal). Similarly, Zawawi (1979: 115ff) defines the system of Kiswahili noun prefixes (which are considered as 'signals of meaning' rather than 'classifiers of noun stems') using features such as 'substance of life singular', 'substance of abstractness and singularity', 'comparison of size and manner', 'intensification in substance or action' and others, including a non-specified 'catch-all'. The study as such includes many interesting and attractive analyses, in that it treats many aspects often ignored by other linguists.

A computer-based analysis of the Kiswahili noun class system has been tried by Contini-Morava (1997). She used a database comprising 4650 nouns tagged according to 12 major semantic features, such as 'human', 'animal', 'plant', 'shape', 'affect', and others, which are further subcategorized. For instance, human nouns are subcategorized into 'kin', 'religious', 'occupation', and so on. Based on this procedure, she presents fairly elaborate semantic networks for some noun classes. For instance, her (re)definition of noun class 3 in Kiswahili reads 'entities



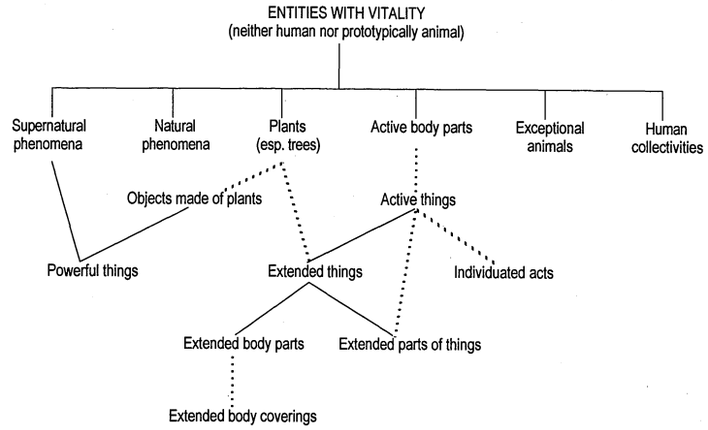



Figure 26 Contini-Morava's (1997: 608) semantic network for noun class 3 in Kiswahili
The different line-types indicate different types of semantic relationships (see original source for details).

with vitality (neither human nor prototypically animal)' and includes six subcategories, some of which include further subdivisions and various cross-relationships between them (see figure 26). In it we find nouns like *mzimu* 'spirit of a dead person or ancestor' (supernatural phenonemon), *mto* 'river' (natural phenomenon), *moyo* 'heart' (active body part), *mchumbururu* 'swordfish' (exceptional animal), *mji* 'town, city' (human collectivity), *mkuyati* 'aphrodisiac, tonic' (powerful thing), *mkeka* 'straw mat' (object made of plant), *mshale* 'arrow' (active thing), *mpiko* 'pole for carrying loads' (extended thing), *mwamba* 'ridge pole on roof' (extended part of thing), *mfupa* 'bone' (extended body part) and *mfuria* 'loose coat' (extended body covering).

The analysis of class 3 is attractive (as are the offered analyses for some other classes), even though it is not completely water-tight; for instance, the word *mwaka* 'year' does not easily fit into the semantic network of class 3. Moreover, the fairly heterogeneous category 'natural phenomena' includes words like *moto* 'smoke', *mlima* 'mountain', *mvuke* 'vapor produced by heat', *mchana* 'daytime', *mrao* 'cool season, harvest time', *mwangwi* 'an echo', *mwamba* 'rock, rock mass, reef', and others. This seems somewhat like an ad hoc grouping to me. Granted, they are all natural phenomena but so are words classified in other classes, such as *wangwa* 'sandy wilderness' and *ufumbi* 'valley bottom' found in class 11=14 (idem: 626).

Another recent contribution in the same vein is Moxley's (1998) analysis of,

again, the Kiswahili noun class system, which draws heavily on Lakoff's (1986) presentation of Dixon's (1972) admirable analysis of the noun classifier system in the Australian language Dyirbal. I will not review this here, except to note that I disagree with Moxley's assertion that "we are now able to show the validity of semantic networks structured by motivated extensions" (Moxley 1998: 229). Be that as it may, semantic networks are definitely more attractive than traditional binary feature analyses. Their main usefulness, at least in my opinion, is their focus on the interrelationship between language and culture rather than language and cognition; see also Dixon's (1972) original analysis.

The step from individual noun class systems to an acceptable meta-system is a big one. Indeed it would seem an almost impossible one to perform; but who knows where future studies will lead us? In the meantime, we can only point at various more or less obvious tendencies. These tendencies were elaborated upon in an interesting meta-system proposed by Hendrikse & Poulos (1992; see also figure 27). Their analysis is based on the features 'concreteness' (with which they associate 10 noun classes), 'attribution' (7 classes), 'spatial orientation' (4 classes) and 'abstractness' (2 classes). For instance, in Luganda we find *kìmúlí* 'flower' classified in noun class 7, which is associated with concreteness; *kàlígá* 'lamb, small sheep' in class 12, associated with attribution (in this case smallness or diminutiveness); *wàkàtî* 'between, in the middle, among' in class 16, associated with spatial orientation; and *bùssâjjá* 'manhood' in class 14, associated with abstractness (examples taken from Cole 1965).[39]

The four features, in the given order, are said to constitute a kind of continuum related to our perception and cognition (see figure 27). "At one extreme of the pole of this scale is the ideal notion of concreteness involving all five senses, and at the other end none of the senses is involved, yielding abstractness" (idem: 204). Thus according to their model, the perceptual saliency of concrete nouns involves (or can involve) all five senses, while attribution-nouns involve only two (visual and tactile), nouns of spatial orientation involve only one (visual) and abstract nouns involve none. They note, however, that some noun classes and noun class pairings, specifically 5/6, 7/6, 11 and 14, fit only partially into their proposed continuum. These "should be interpreted as reflecting nouns that occupy hybrid positions between the more 'pure' categories on either side of them" (idem: 208). Thus we typically find both attribution-nouns and concrete nouns in 5/6, 7/8 and 11, while class 14 contains both locations and abstract nouns. We will see examples of these further below.

[39] The noun classes associated with attribution and spatial orientation constitute special sets that behave somewhat differently from other classes. This is explained more fully further below.



| NOUNS | → | ADJECTIVE-LIKE NOUNS | → | ADVERB-LIKE NOUNS | → | VERB-LIKE NOUNS |
|---|---|---|---|---|---|---|
| 1/2 | 5/6 | 12/13 | | 16 | 14 | 15 |
| 3/4 | 7/8 | 19 | | 17 | | |
| 9/10 | 11 | 20 | | 18 | | |
| | | 21 | | 23 | | |
| | | 22 | | | | |
| *Concreteness* (five senses) | | *Attribution* (two senses) | | *Spatial orientation* (one sense) | | *Abstractness* (no sense) |

Figure 27 Hendrikse & Poulos's semantic continuum for Bantu noun classes
Adapted from Hendrikse & Poulos (1992: 205+208).

The proposed meta-system is attractive on at least two accounts. Firstly, it seemingly captures what most people find to be basic semantic regularities in Bantu noun class systems. Secondly, it relates nominal classification to nonlinguistic factors such as perception and cognition. However, one would have liked further details with regard to the many concrete classes. Also, there are many cases that clearly contradict the proposed continuum; for instance, body parts are not seldom found together with infinitives in class 15 in many Bantu languages (see further below on this). Thus we would have to establish "hybrid positions" not only between adjacent categories like 'concrete' and 'attribution' but also between non-adjacent categories, in this case between 'concrete' and 'abstract', unless of course the continuum is taken to constitute a full circle. It is, furthermore, unclear how one should treat odd pairings like 14/10 found in Siyeyi and some north-eastern Bantu languages.

What is, or at least has been, usually implied in semantic descriptions of Bantu noun class systems is that the idiosyncracies and irregularities of individual languages are later developments from an original semantically transparent Proto-Bantu noun class system. For instance, Givón (1971: 33) claims that it is possible to "detect traces or relics attesting to an older state of affairs, in which the Bantu noun classes has strong semantic import" and further that "the old state of affairs has been almost completely obliterated by now" (idem). It is basically this proto-system that any proposed meta-system wants to capture.

In an effort to reconstruct this hypothetical transparency of the Proto-Bantu noun class system, Creider & Denny (1976; see also Denny & Creider 1986) analysed the Proto-Bantu nominal stems reconstructed and listed by Guthrie (1971: 17ff). Their system, reproduced in figure 28, makes an initial division between mass nouns and count nouns. The latter are further subdivided according to

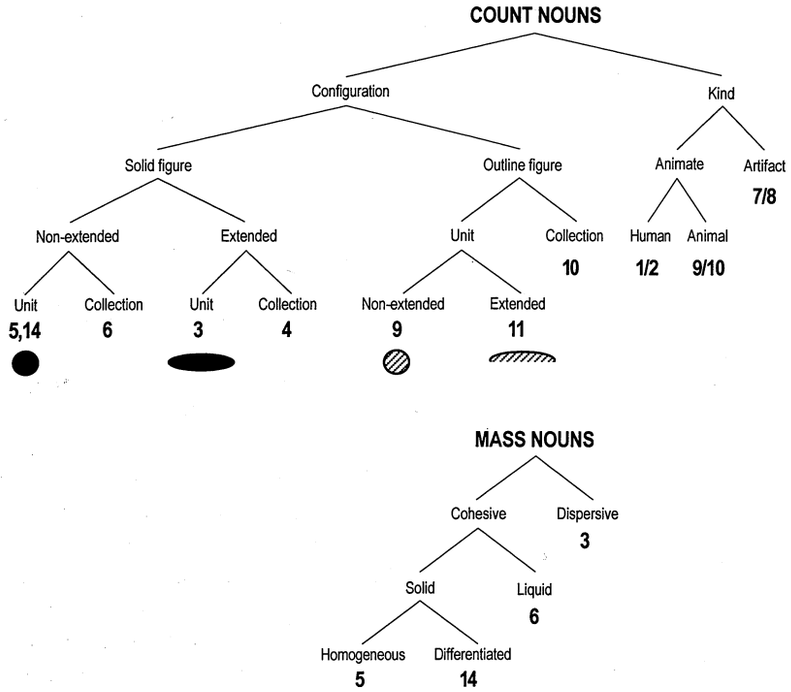



Figure 28 Creider & Denny's semantic model of Proto-Bantu noun classes
Adapted from Denny & Creider (1986: 219).

configurational and shape features. Among the reconstructed count nouns, Denny & Creider (1986: 232ff) find non-extended solid figures such as **-báda* 'spot, freckle', **-bééde* 'breast' and **-bubi* 'spider' (bulbous body) in class 5; extended solid figures such as **-bidi* 'body', **-cúá* 'termite' (particularly long body) and **-cúdo* 'stream' in class 3; non-extended outline figures such as **-biga* 'pot for storage', **-buga* 'open space' and **-búto* 'seed' in class 9, and so on. Reconstructed mass nouns include **-céké* 'sand' and **-tí* 'herbal remedy' in class 3 (dispersive substances), **-bééde* 'milk', **-kụ́ta* 'oil' and **-bị́* 'excreta' in class 6 (liquids), **-dimbo* 'birdlime', **-yoŋgó* 'grain' and **-yoga* 'mushroom' in class 14 (differentiated substances), and so on. It should be mentioned, however, that the authors also note many problems. For instance, they find **-papá* 'wing' as a 5/6 noun (non-extended solid figures), **-dị́mu* 'spirit' as a 3/4 noun (extended solid



figures), and **-kuá* 'yam' as a 7/8 noun (artifacts), among many others.

Assuming a transparent and/or regular semantic model for Proto-Bantu may not be that wise. Since there are no modern Bantu languages with easily defined noun class systems (save the ones which I refer to as reduced systems, as will be shown further below), there is no reason to expect Proto-Bantu to have exhibited such regularity. "[I]t is impossible to prove conclusively by any reputable methodology that nominal classification in Proto-Bantu was indeed widely based on conceptual implication. In the absence of such proof one might equally well assume that the assignment of nominals to classes was for the most part an arbitrary grammatical device" (Richardson 1967: 378). However, it need not have been entirely arbitrary. The semantic model reconstructed by Denny & Creider (1986) can be used to describe semantic tendencies in most of the modern Bantu noun class systems; for instance, most abstracts are found in class 14 (but not exclusively so). There is, at least in my view, no reason the expect Proto-Bantu to have exhibited a less irregular system than any of the modern languages.

The basic problem for all semantic analyses of Bantu noun class systems is that there are counterexamples to all of them, basically in every single language. All semantic analyses end up with miscellaneous and/or inconsistent categories. We will see this more clearly in the following subsections. However, this does not by necessity mean that we cannot establish likely semantic properties for an original Proto-Bantu noun class system. In fact, we can, though only fragmentary ones. This will be discussed more fully in chapter 5. In the next subsection, I will demonstrate some of the empirical problems encountered when trying to establish meta-models.

### 3.3.2 A small lexicosemantic survey

The following discussion centers around a series of tables containing lexical items drawn from a small number of Bantu languages from across the entire Bantu area and for which data have been fairly easily available to me. The four tables in figures 29-32 contain lexical items representing humans, animals, natural phenomena, tools, abstracts, liquids, and an infinitive form of the verb (since these are classified as nouns in Bantu languages). Other figures are introduced as we go along.

Starting with nouns denoting human beings, we can see that these are mostly found in class 1, although not all humans are found in that class.[40] We can, however, see that class 1 contains only humans, or almost so, since in Ifumu there

40 Except where necessary for making some relevant point, I will not refer to pairings. Thus here and below I refer only to singular classes.

| | A24<br>**Duala** | A44<br>**Tùnɛn** | B77<br>**Ifumu** | C36<br>**Lingala** |
|---|---|---|---|---|
| 'woman, wife' | múto 1/2 | mùənd 1/2 | mukeo 1=3/2<br>mukayu 1=3/2 | mwásí 1/2 |
| 'king, chief' | mwanedi 3/4 | mòmanən 1/2 | mfumu 1=3/2 | mokonji 3/4 |
| 'thief' | ekẹngeń 7/8 | mùíb 1/2 | mwibi 1=3/2 | moyíbi 1/2 |
| 'deaf, mute' | emumɛ́le 'a moto 7/8 | mùndɔ́kɔndɔ́k 1/2 | ? | emimi 7/8 |
| 'head' | mulopo 3/4 | mòló 3=11/4 | mutɛ̧wɛ 1=3/4 | motó 3/4 |
| 'eye' | díso 5/6 | nĭs 5/6 | dziu 5/4 | líso 5/6 |
| 'leg' | mukálá 3/4 | hèŋgwánjàb 19/13 | muwini 1=3/4 | lokolo 11/6 |
| 'dog' | mbó 9/10 | èmɔ́ 7? | mbwa 1=3/2 | mbwá 9/10 |
| 'elephant' | njọu 9/10 | mìsək 9/10 | nzō 1=3/2 | njɔku 9/2~10 |
| 'tortoise' | wúdu 9/10 | mìn 9/10 | mfulu 1=3/2 | nkóbá 9/2<br>njɛnjɛ 9/10 |
| 'snake' | ńama-bwaba 9/10 | mìáx 9/10 | ntali 1=3/2 | nyóka 9/10 |
| 'spider' | dibobe 5/6 | nìalal 5/6 | nkala 1=3/2 | lifofe 5/6 |
| 'mountain, hill' | mudóngó 3/4 | òmá 3=11/4 | nkiga 9=10/6 | ngómba 9/10<br>nkéka 9/10 |
| 'river' | mọpí 3/4 | nùíy 5/6 | mwele 1=3/4 | ebalé 7/8<br>motíma 3/4 |
| 'canoe' | bọlọ 14/4 | ìsoy 7/8 | bwaru 14/6 | bwáto 14/6 |
| 'knife' | diwẹndi 5/6 | òmbán 3=11/4<br>hìtibitib 19/13 | mbyele 9=10/6 | mbɛli 9/10 |
| 'rope' | mwasa 3/4 | mùkoli 3=11/4<br>èmbáfák 7/8 | musia 1=3/4 | nsinga 9/10<br>nkámba 9/10 |
| 'basket' | ndóńẹ 9/10<br>esánjá 7/8<br>dingúdu 5/6 | èkan 7/8 | itutuba 7/8 | ɛkɔlɔ́ 7/8<br>elóngo 7/8 |
| 'truth' | mbalẹ 9/10<br>iwíyẹ 19 [<5] | tàka 9 ? | ngwẹanwa 9=10 ? | sôlɔ 9/10<br>sémbó 9/10 |
| 'evil' | eńám 7/8 | bòkwáy 14=20 | mpuru 9=10 ? | mabé 9/10 ? |
| 'life' | longẹ 5/(6) | bùɔm 14=20/6 | mwe 9=10 ? | bolingo 14 |
| 'milk' | mańọ́ngọ 6 | màbény 6 | byeno ?/6<br>ibyeni 7/8 | mabéle 6 |
| 'water' | madíbá 6 | mʷènif 6 | madza 6 | mái 6 |
| 'oil, fat, grease' | múla 6? | mòl 6 | mali 6 | mafúta 6 |
| 'to see' | jẹnẹ 5 | òbòŋ 15 | umono ? | kòmɔ́na 15 |

Figure 29 The classification of selected nouns in four Bantu languages (I)
Sources used: Helmlinger (1972) for Duala; Dugast (1967) for Tùnɛn; Calloc'h (1911) for Ifumu; and Guthrie & Carrington (1988) for Lingala.



| | C83<br>**Bushong** | D25<br>**Lega** | E55<br>**Kamba** | F22<br>**Kinyamwezi** |
|---|---|---|---|---|
| 'woman, wife' | ŋgáat 1/2 | mo.kíkolo 1/2 | mũndũmũka 1/2 | mkúmaˊ 1/2 |
| 'king, chief' | kúm 1a/2 | mo.kɔra 1/2 | mũsumbĩ 1/2 | mtemí 1/2 |
| 'thief' | mweem 1/2 | mw.ĭbi 1/2 | kĩng'ei 7/8 | ŋwiíßí 1/2 |
| 'deaf, mute' | kíl 1a? 9? | ke.mbólá 7/8 | ? | nchíßaˊ 1a/2 |
| 'head' | ncwɛ́y 3/4 | itwɛ́ 5/6 | mũtwe 3/4 | mtweɛ́ 3/4 |
| 'eye' | dĭiʃ 5/6 | l.ĭsɔ 5/6 | itho 5/6 | liisó 5/6 |
| 'leg' | lakol 11/4 | ko.golo 15/6 | kũũ 15/6 | kugulu 15/6 |
| 'dog' | mbɔ́ʃooŋ 9/10 | m.bwá 9/10 | ngitĩ 9/10 | mbwaá 9/10<br>iwaá 5/6 |
| 'elephant' | ncɔk 9/10 | n.zɔgu 9/10 | nzou 9/10 | mhulı 9/10<br>nzovu 9/10 |
| 'tortoise' | iyúl 7/6 | n.kúlu 9/10 | ? | gulumaati 9/10<br>lıgulumaati 5/6 |
| 'snake' | ncwá 9? | n.zóka 9/10 | nzoka 9/01 | nzoká 9/10<br>iyoká 5/6 |
| 'spider' | nceemy 9 | i.kilaíkila 5/6 | mbwavũĩ 9/10 | taándu̇́. 9/10<br>lıntaándu̇́. 5/6 |
| 'mountain, hill' | nkwooncy 3/4 | mw.idokɔ 3/4 | kĩĩma 7/8 | lugulu 11/10 |
| 'river' | ncál 9/10 | lw.ĕndé 11/10 | ũsĩ 11/10 | moóngoˊ 3/4 |
| 'canoe' | bwăat 14/6 | bw.ărɔ 14/6 | ĩtalũ 5/6 | ? |
| 'knife' | nʃín ámbɔ 3/4 | mw.ɛnɛ́ 3/4 | ũvyũ 11/10 | lushuú 11/10~6 |
| 'rope' | mwaan 3/4<br>nʃuk 3/4 | mu.zígi 3/4 | ĩkanda 5/6<br>ũlii 11/10 | lugoye 11/10 |
| 'basket' | nkaaŋ`l 3/4 | lo.zi 11/10<br>n.komba 9/10 | kĩkavũ 7/8 | kıgapú 7/8 |
| 'truth' | ? | ? | w'o 14? | ŋhaná 9 |
| 'evil' | ? | ? | ũthũku 14 | mbayá 9 |
| 'life' | mwɔɔŋ 3/(4) | ka.lamɔ 12 | thayũ 14? | ßupaángá 14 |
| 'milk' | mabyɛ́ɛl 6 | ma.bɛ́lɛ 6 | ĩia 5 | maßeéleˊ 6 |
| 'water' | măaʃ 6 | mă.(n)ze 6 | kĩw'ũ 7/(8) | miinzí 6 |
| 'oil, fat, grease' | ʃɛdy 9/10 | ma.nɔna 6 | mauta 6<br>ũnou 14 | magutá (5)/6 |
| 'to see' | amɔ́n 15 | ko.mɔ́na 15 | kwona 15 | kußoná 15 |

Figure 30 The classification of selected nouns in four Bantu languages (II)
Sources used: Vansina (1959) for Bushong; Botne & Salama-Gray (1994) for Lega; Whiteley & Muli (1962) and Mbiti (1958) for Kamba; and Maganga & Schadeberg (1992) for Kinyamwezi.

| | G42<br>**Kiswahili** | H16b<br>**Kikongo** | K43<br>**Thimbukushu** | M54<br>**Lamba** |
|---|---|---|---|---|
| 'woman, wife'<br>'king, chief' | mwanamke 1/2<br>mfalme 1/2 | mukazi 1/2<br>mfumu 9/10 | ?<br>'fúmú 1a/2 | umwanakasi 1/2<br>imfumu 9/10 ? |
| 'thief' | mwizi 1/2<br>mvivi 1/2 | mwivi 3/4 | mwidhi 1/2 | umuŋo 1/2 |
| 'deaf, mute' | kiziwi 7/8 | ? | thimúmu no thífa mátwi 7/8 | ? |
| 'head' | kichwa 7/8 | mutu 3/4<br>ntu 3/4 | 'mútwí 3/4 | umutwi 3/4 |
| 'eye'<br>'leg' | jicho 5/6<br>mguu 3/4 | disu 5/6<br>? | dího 5/6<br>dighuro 5/6 | ilinso 5/6<br>ukūlu 15/6 |
| 'dog'<br>'elephant'<br>'tortoise' | mbwa 9/10<br>ndovu 9/10<br>kobe 5/6<br>kasa 9/10 | mbwa 9/10<br>nzau 9/10<br>? | mbwá 1a/2<br>'ndhóvŭ 1a/2<br>ndhoghóro 1a/2~6 | imbwa 9/10<br>insofu 9/10<br>fulwe 1a/2 ? |
| 'snake'<br>'spider' | nyoka 9/10<br>buibui 9/10 | nioka 9/10<br>? | dyoka 5/6<br>diwíwî' 5/6 | insoka 9/10<br>siŵutaŋgataŋga 1a/2 |
| 'mountain, hill'<br>'river' | mlima 3/4<br>mto 3/4 | mongo 3/4<br>? | dirúndu 5/6<br>rwáre 11/6 | ulupili 11/6<br>inika 9/10 |
| 'canoe' | mtumbwi 3/4 | bulungu 14/6 | wáto 14/6 | ubwato 14/6 |
| 'knife' | kisu 7/8 | ? | moko 10/6 | iciŵesi 7/8 |
| 'rope' | ukambaa 11(=14?)/10<br>kamba 9/10 | ? | mughódi 3/4 | umwando 3/4 |
| 'basket' | kikapu 7/8<br>pakacha 5/6 | ? | thikóte 7/8 | icitundu 7/8 |
| 'truth' | kweli 9/10<br>ukweli 14(=11?) | ? | ghushémwa 14/6<br>ghughoroka 14 | icīne 7/8 |
| 'evil' | uovu 14(=11?)<br>maovu 6 | mufu 3<br>bubi 14 | ghuyi 14 | iciŵīpile 7/8 |
| 'life' | maisha 6<br>uzima 14(=11?)<br>uhai 14(=11?) | moyo 3/4 | moyo 3 | umweo 3/4 |
| 'milk' | maziwa 6 | mamvumina 6 | mánhwe 6 | amandili 6 |
| 'water'<br>'oil, fat, grease' | maji 6<br>mafuto 6<br>unono 14(=11?) | maza 3/4<br>mazi 6 | maghadi 6<br>rushíko 11/6 | amenda (11)/6<br>amafuta 6 |
| 'to see' | kuona 15 | mona 15 | kumona 15 | wona 15 |

Figure 31 The classification of selected nouns in four Bantu languages (III)
Sources used: Lodhi & Otterbrandt (1987) for Kiswahili; Laman (1912) for Kikongo; Wynne (1980) for Thimbukushu; and Doke (1933; 1963b) for Lamba.



| | N43<br>**Nyungwe** | P31<br>**Emakhuwa** | R31<br>**Otjiherero** | S21<br>**Tshivenda** |
|---|---|---|---|---|
| 'woman, wife'<br>'king, chief' | mkazi 1/2<br>mtongi 1/2 | muthiyana 1/2<br>mwene 1/2 | omukazendu 1/2<br>ombara 9/10<br>omuhona 1/2 | musadzi 1/2<br>khosi 9/6~10 |
| 'thief' | mbava 9/10 | namwiya 1/2 | eka 5/6 | mbava 9/10<br>mutswi 1/2<br>fobvu 5/6 |
| 'deaf, mute' | bewewe 1/2 | khaiwa 1a/2 | omboro 9/10 | ? |
| 'head' | msolo 3/4 | murru 3/4 | otjiuru 7/8 | ṭhoho 9/10 |
| 'eye'<br>'leg' | diso 5/6<br>mwendo 3/4 | nitho 5/6<br>mwetto 3/4 | eho 5/6<br>okurama 15/6<br>otjiryo 7/8 | ịto 5/6<br>? |
| 'dog'<br>'elephant'<br>'tortoise' | nkhanda 9/10<br>nzou 9/10<br>kamba 1a/2 | mwalápwa 1/2<br>etthepo 7/8<br>khapá 1a/2<br>okhapá 14=15=17<br>ewole 7/8 | ombwa 9/10<br>ondjou 9/10<br>onḍuzu 9/10 | mmbwa 9/10<br>ndou 9/10<br>tshibode 7/8 |
| 'snake'<br>'spider' | nyoka 9/10<br>tandaude 1a/2 | enowa 7/8<br>rattasi 1a/2 | onyoka 9/10<br>otjitjauvi 7/8 | ṉowa 9/10<br>buvhi ?/6 |
| 'mountain, hill'<br>'river' | phiri 5/6<br>mkulo 3/4 | mwako 3/4<br>murró 3/4 | ondundu 9/10<br>onḍonḍu 9/10 | thavha 9/10<br>mulambo 3/4 |
| 'canoe' | mwadiya 3/4 | nikula 5/6<br>mperere 3/4 | ? | gungwa 5?/6 |
| 'knife' | cisu 7/8 | mwalo 3/4<br>ehoka 7/8 | oruvyo 11/13 | lufhanga 11/10 |
| 'rope' | cingwe 7/8 | mukhoi 3/4 | ? | thambo 9/10 |
| 'basket' | citundo 7/8 | nivuku 5/6<br>ethókwa 7/8 | ? | manngi 3/4 |
| 'truth' | cadidi 7 | ekhwele 7/8 | ouatjiri 14/6 | ngoho 9/10 |
| 'evil' | cakuipa 7/8 | elavilavi 7/8 | ouhangundu 14<br>ourunde 14 | vhuvhi 14 |
| 'life' | moyo 3/4 | ekumi 7/8<br>okumi 14=15=17<br>murrima 3/4 | omuinyo 3/4 | vhutshilo 14 |
| 'milk' | mkaka 3/(4?) | mukaka 3/4 | kanda ?<br>omaihi 6 | mafhi 6<br>mukando 3/4 |
| 'water'<br>'oil, fat, grease' | madzi 6<br>mafuta 6 | masi 6<br>makhurra 6<br>mafutta 6 | omeva 6<br>omaoli 6<br>omaze 6 | maḍi 6<br>mapfura 6<br>oili 9/10<br>girisi 9/10 |
| 'to see' | kuwona 15 | wona 15 | okumuna 15 | uvhona 15 |

Figure 32 The classification of selected nouns in four Bantu languages (IV)
Sources used: Dos Anjos Martins (1991) for Nyungwe; Prata (1960; 1973) for Emakhuwa; Viljoen & Kamupingene (1983) for Otjiherero; and Wentzel & Muloiwa (1982) for Tshivenda.

are a number of non-humans and even non-animates in class 1 due to a merger of classes 1 and 3. In Emakhuwa, we find *mwalápwa* 'cão' (Port.) in class 1.

There is a class widely found across the Bantu area which is traditionally labelled '1a'; see, for instance, the Bushong word for 'king' and the Kinyamwezi word for 'deaf (person)'. Nouns in this class usually include kinship terms, proper names, names of animals, personified animals, that is, such that occur in fables and tales, and in a number of languages also loan words. An interrogative root meaning 'who?' is also often found in this class (see Doke 1927). The reason for sublabelling this class '1a', instead of giving it a digit of its own, is due to the fact that, in many (most?) of those languages where it occurs, it employs concords that are identical to those of class 1, though not in all languages (see Doke 1927: 198ff). However, while the noun prefix of class 1 usually contains a nasal consonant, the noun prefix of class 1a is either a zero-prefix or a single vowel. In Kinyamwezi, for instance, the noun prefix of class 1 is *m-*, as in *mìtweé* 'head', while that of class 1a is a zero-morpheme, as in *(ø-)nchíβá* 'deaf'.[41] Similarly for many other languages.

Where the noun prefix is a zero-morpheme, the nouns in class 1a collectively display a variety of phonological forms with regard to their initial elements; that is, there is seldom a recurring recognizable prefix-form as in nouns of other classes.[42] However, this seems only partially true. In Nyungwe, for instance, many class 1a noun stems begin with *ma-*, *nya-* and *ka-* (see Torrend 1914: 798ff). Similarly many *tši-*, *ma-* and *ka*-initial 1a nouns are found in Lamba (Doke 1927: 198), many *ka*-initials in Tumbuka (Vail 1971: 40f) and Kikongo (see Laman 1912: 34), many *ma*-initials in Northern Sotho (see Lombard et al. 1985: 33f), and so on. Doke (1927: 198) calls these prefix-like elements 'suppressed short prefixes' and notes that some of them are indeed (former) prefixes. For instance, *ka-* is referred to as an 'agentive formative', *ši-* is referred to as an 'originally masculine prefixal formative' and *na-* as an 'originally feminine prefixal formative'. We find derivational prefixes of these kinds in several Bantu languages. In Setswana, for instance, a *ka*-element is used together with the class 7 prefix in the complex prefix *seka-* meaning 'something like', 'something resembling', 'having the characteristics of', as in *sekatau* meaning 'something like a lion, having leonine characteristics' (Cole 1955/1975: 111). Similarly in Thimbukushu a *ka*-prefix is used only in conjunction with other prefixes. Together with the class 1 prefix, it occurs in a complex *muka*-prefix, as in *mukashure* 'scholar' derived from *shure* 'school' and *mukatjitju* 'patient, sick person' derived from *tjitju* 'pain' (Fisch

41 The <́ > indicates a so-called floating tone (see Maganga & Schadeberg 1992: 239).

42 It is also for this reason that many loan words find their way into this class. I return to this further below, when discussing another class with this particular phonological characteristic, namely, class 9.



1977: 23), and together with the class 7 prefix in *thika-*, as in *thikameyu* 'aquatic animal' and *thikawiru* 'flying animal' (idem: 41). Derivational prefixes with 'feminine' and 'masculine' meanings are productively used in many eastern and southern Bantu languages, for instance, Lwena *nya-* is prefixed to personal names adding the meaning 'mother of' while *sa-* adds the meaning 'father of' (White 1949: 12). In Thimbukushu we find *na-* 'mother of' and *sha-* 'father of' (Fisch 1977: 40) and in Setswana we find *mma-* 'mother of' and *rra-* 'father of' (Cole 1955/1975: 126). So presumably the traces of the prefix-like elements that we find in class 1a nouns derive from the use of derivational prefixes, and not former prefixes related to the noun class system as such.

Those human nouns which (in figures 29-32) are not in classes 1 or 1a can be found in classes 3, 5, 7 and 9. Of these, classes 5 and 7 are the most interesting from a semantic point of view. These include words for 'thief' and 'deaf (person)', 'mute (person)' or 'deaf-mute (person)'. In many Bantu languages class 7 has a derogatory function while in other languages class 5 does so. Thus, for instance, people with undesirable features are often found in either of these classes. In Lingala, we find besides *emimi* 'deaf person' also, for instance, *ebubu* 'dumb person' and *elombé* 'giant' classified in class 7 (Guthrie & Carrington 1988: 17). In Tshivenda, we find human (derogative) nouns in both classes 5 and 7, for instance, *fobvu* 'thief' in class 5 and, in class 7, *tshidakwa* 'drunkard' and *tshimuma* 'dumb person' (Wentzel & Muloiwa 1982: 167). Usually human nouns in class 7 exhibit some kind of undesirable and permanent feature, while those in class 5 are people simply behaving badly. As for Bushong, Vansina (1959: 84) gives only the form *kíl* 'sourd-muet' (Fr.) without any indication as to class belonging. Judging by his description of the noun classes, however, it could belong to either class 1a or class 9 (idem: 14ff).

Body parts are scattered in several classes, but classes 3 and 5 seem to be among the most common. In particular, paired body parts are often found in class 5. Thus a word for 'eye' is typically found in class 5. The word for 'leg' is oddly classified in many Bantu languages. In Lega,[43] Kamba, Lamba and Otjiherero we find it in class 15 which usually contains the infinitive form of the verb. This is in fact quite a common phenomenon in a number of languages. I return to this separately further below.

Most animals are found in class 9, but as already mentioned above, some are also found in class 1a. In Thimbukushu, classes 1, 1a and 9 employ identical concords, which links these classes morphosyntactically. Thus it is not surprising to find animals in both classes 1a and 9 in Thimbukushu; the latter class is the most

43 Botne & Salama-Gray (1992: 61) give the pairing 14/6 for *ko.golo* 'leg' in the dictionary part. This is clearly a mistake, since the noun prefix for class 14 is elsewhere given as *bo-* and that of class 15 as *ko-* (idem: xiii).

common class for animals, though. In class 9, we find many inanimates too, like *mbyele* 'couteau' (Fr.) in Ifumu, *ngómba* 'hill, mountain' in Lingala, *ncál* 'rivière' (Fr.) in Bushong. It is interesting to find many abstract nouns in class 9, like the word for 'truth' in Duala,[44] Tùnɛn, Ifumu, Lingala, Kinyamwezi, Kiswahili and Tshivenda. In Ifumu, strangely, class 9 seems to be an inanimates-only class, with all animals found in other classes, notably merged class 1=3 (Calloc'h 1911: 13ff).

As regards natural phenomena, the word for 'river' is found in class 11 in Lega, Kamba, Thimbukushu as well as many other Bantu languages. This is often explained by the fact that class 11 is associated with long and thin entities. Presumably, the Kamba words *ũvyũ* 'knife' and *ũlii* 'rope' are found in class 11 for that reason. A similar attenuative semantics of class 11 is also evident in Oshindonga (not in the tables), where we find a special kind of diminutive nouns in class 11, for instance, *oluyóka* 'small thin snake' and *oluntú* 'small lean person' (Fivaz 1986: 44). However, not all nouns in class 11 are thin or long; for instance, Thimbukushu *rushíko* 'fat' and Kinyamwezi *lʊgʊlʊ* 'mountain' are not. Neither are all conceivably long and thin things classified in class 11, like *mughódi* 'rope' and *wáto* 'canoe' in Thimbukushu, which are found in classes 3 and 14 respectively.

Things (literally) are usually found in a number of different classes but, class 7 functions as a typical thing-class in most languages. However, this is not unequivocally so. In Ifumu, for instance, class 9 is the typical thing-class. Moreover, things are usually found in other classes as well. The word for 'basket' is found in class 7 in most languages listed in figures 29-32, but not in all of them; see Bushong, Lega and Tshivenda. In Duala, there are several words for different kinds of baskets and these are found in different classes; for instance, *esánjá* 'un panier (en rotin)' (Fr.) and *sunga* 'un corbeille' (Fr.) are found in class 7, *ndóŋɛ* 'un corbeille' (Fr.) in class 9 and *dingúdu* 'un corbeille tressée av. des tiges de palmes pour conserver les poissons' (Fr.) in class 5 (Helmlinger 1972). Similarly in Lingala, we find two general words for 'basket' in class 7, *ɛkɔlɔ́* and *elóngo*, while special kinds of baskets are found in other classes, for instance, *mɔtɛtɛ* 'basket made of palm leaves' in class 3, *lipoli* 'basket carried on back' in class 5 and *yíka* 'basket for fishing' in class 9 (Guthrie & Carrington 1988). Also in Lega, there are several words for basket, but none of which are classified in class 7, for instance, *lo.zi* 'large basket' in class 11,[45] *n.komba* 'small basket' in class 9, *mo.pala* 'worn out basket used for storage' and *lw.ɛli* 'basket for winnowing' in class 11 (Botne & Salama-Gray 1994).

One apparently odd classification among the thing-nouns in figures 29-32

44 The second Duala word for 'truth', *iwíyɛ*, is etymologically derived from a class 5 noun *diwéyɛ́* (Helmlinger 1972: 183).

45 Botne & Salama-Gray (1992: 49) identify the pairing for *lo.zi* as 9/10. Probably this is a misprint for 11/10, since their segmentation of the word indicates a *lo*-prefix, which is consistent with class 11, not 9 (idem: xiii).



concerns the word for 'canoe'. Curiously enough, it is often found in class 14 which is a common class for abstract nouns (see also Guthrie 1970b: CS1949).[46] Other non-abstract nouns found in class 14 include words for 'bow', 'bridge', 'bedstead' and 'face'. These were allocated to class 14 in Proto-Bantu, according to Guthrie (1971: 17ff). Denny & Creider (1986: 225) speculate that their inclusion in class 14 might be due to the fact they "are all units having a differentiated internal structure consisting of various different parts", which to me sounds like stretching the argument somewhat; recall their semantic proto-system described above, which described class 14 primarily as a noun class for differentiated substances and/or abstracts, including reconstructed roots for 'birdlime', 'grain', 'witchcraft', 'bitterness', and others.

Abstract nouns are usually classified as single class nouns, that is, they are grammatically treated as mass nouns or uncountables. In many languages, the majority of nouns in class 14 comprises abstract nouns. That this is a productively employed semantic feature of this class in many languages is evident from the fact that many Bantu languages regularly classify abstract nouns derived from other parts of speech, particularly verbs, in this class; see Batibo (1992) for some Kiswahili data (see also Kähler-Meyer 1967). However, abstracts are found in other classes too, notably classes 3 and 9, often in addition to class 14. For instance, a word for 'life' is found in class 3 in many (most?) languages. Probably this is also its original Proto-Bantu classification (see Guthrie 1971: 23). In Umbundu (not in the tables), a merged class 3=14 regularly functions as the abstract class for derived words, for instance, *únénè* 'bigness' derived from the adjective stem *-nénè* 'big', and *úsomá* 'royalty' derived from *ósomá* 'king, chief' (Schadeberg 1990: 28, who calls them 'qualitatives').

Liquids are, as abstracts often are, treated as mass nouns. However, while abstracts are usually found in a class that ordinarily functions as a singular class (14, 3 or 9), liquids are most often found in a class that ordinarily functions as a plural class, namely, class 6. Welmers (1973: 163) suggests that the collection of these mass nouns be defined as belonging to a class sublabelled '6a', in order to distinguish it from the plural class that would then be labelled simply '6'. There is a historical significance to the idea of establishing a putative class 6a. We can often find a separate class for liquids and mass nouns in other Niger-Congo languages that is different from any of the plural classes used (see Williamson 1989a: 37ff). For instance, in Iguta, a Kainji language spoken in the Plateau State in Nigeria, there is a plural class corresponding to the plural class 6 in Bantu languages, as in *à-žì* 'eggs' (plural of *rì-žì*), and a separate single class used for

46 The "CS" refers to what Guthrie (1970) calls 'comparative series'. There are 2283 such CSs, which are numbered consecutively. It is to this consecutive numbering that the digits following the "CS" refer, not the pagination.

many liquids such as *mù-nyì* 'blood' and *mì-nì* 'water' (De Wolf 1971: 69ff). This is not so in Bantu languages, and the identity between classes 6a and 6 in Bantu languages is commonly explained as the result of a pre-Bantu merger. In fact, putative class 6a is phonologically, morphologically and syntactically indistinguishable from class 6 and thus there is little reason to accept a relabelling, since otherwise we would have to establish many more sublabelled classes. I return to this issue in chapter 5.

Not all languages classify all liquids in class 6(a), as evident from the items in figures 29-32. In Kamba, for instance, the word *ĩia* 'milk' is found in class 5. Etymologically related roots are found in a number of non-western Bantu languages with the same meaning, sometimes as a class 5 noun, sometimes as a class 6 noun (see Guthrie 1970a: CS604). Possibly an earlier countable 5/6 noun later got reanalysed as an uncountable noun and became in the process allocated to different classes in different languages. In Lingala, Bushong, Lega, Kinyamwezi and others, we find words for 'milk' that are clearly related to a Proto-Bantu root with the reconstructed form **-béédè*, which is listed twice in Guthrie's (1971: 17) "provisional list of Proto-Bantu stems and radicals", once with the meaning 'breast' (given as a 5/6 noun) and a second time with the meaning 'milk' (given as a class 6 noun). The modern forms for 'milk' seem almost invariably to be found in class 6, though not so at least in Bobe, a north-western Bantu language, where we find it in class 5 (Guthrie 1970a: CS73).

Liquids are not always treated as mass nouns in all languages; see, for instance, Ifumu (see the word for 'milk'), Bushong ('oil'), Kikongo ('water'), Thimbukushu ('oil'), Emakhuwa ('milk') and Tshivenda ('milk'). Furthermore, many of the languages that classify liquids in other classes than 6 have words that are etymologically unrelated to any of the above-mentioned Proto-Bantu roots, for instance, *mkaka* 'milk' and *mukaka* 'milk' in Nyungwe and Emakhuwa respectively. In Tshivenda, we can see that the words *oili* 'oil' and *girisi* 'grease' are found in class 9. These are loan words and they carry zero-prefixes. I return to loan words briefly.

Infinitives are grammatically treated as nouns in Bantu languages and in most languages they are found in class 15. In the northern Bantu area, however, we find a whole range of infinitive classes other than 15, most notably class 5. The standard form of the Bantu infinitive is: noun prefix + verb root ending with a vowel *a*, which is often referred to as a 'terminative suffix'. (This is not, however, reflected in the segmentation below, where I treat verb stems as single units.[47])

[47] This 'terminative suffix' is not always *-a*. Subjunctive forms usually carry an *e*-suffix instead. There is also a slight language-specific variation, especially in the north-western area, for instance in Tùnɛn, where we find no 'terminative suffixes' (see Dugast 1971: 191+232ff). To identify a final suffix in Bantu verb stems is theoretically necessary. Usually derivational items (so-called verbal extensions) attach between the verb root and the final vowel.



*ɛríkú: ɽà* — Kɔnzɔ (Tucker & Bryan 1957: 15)
ɛrí kú: ɽà
NP.5 grow
'to grow'

*okusíndikà* — Umbundu (Schadeberg 1990: 34)
oku síndikà
NP.15 push
'to push'

*kùmínà* — Siyeyi (Sommer 1995: 412)
kù mínà
NP.15 swallow
'to swallow'

In some (many?) Bantu languages, the infinitives may also incorporate object markers as well as various TMA-markers.

*gomorêkêla* — Setswana (Cole 1955/1975: 96f)
go mo rêk êla
NP.15 OC.1=3SG buy APPL
'to buy for him'

*gokarêka*
go ka rêka
NP.15 COND buy
'to be able to buy'

*gosàkwala*
go sà kwala
NP.15 NEG write
'not to have written'

Infinitives in Kimatuumbi exhibit an interesting interplay between the use of an overt noun prefix and the incorporation of object concords. "Kimatuumbi does not allow an overt infinitive prefix, except when an object prefix is present" (Odden

Thus, for instance, in Kinyamwezi we find a verb stem *-luhya* '(to) victimize, (to) make suffer' which is derived from *-luha* '(to) suffer' with the causative extension *-y-* (example from Lodhi 1985: 10). The issue of verbal extensions is of minor concern for the present study and will not be elaborated in any great detail.

| | 'arm, hand' | 'armpit' | 'ear' | 'leg' | 'shoulder' | OTHER BODY PARTS FOUND IN CLASS 15 |
|---|---|---|---|---|---|---|
| Mbɛnɛ (A43) | *wɔ̀ɔ́* | ? | *ó* | *kòò* | ? | *sú* 'visage' (Fr.) |
| Ifumu (B77) | *kwō* | *(mfwamfwa)* | *(tɕẅi)* | *kulu* | *(i-samuga)* | |
| Lega (D25) | *ko.bɔ́kɔ* | *kw.ăga* | *ko.rózi* | *ko.góloo* | *ko.róli* | |
| Kɔnzɔ (D41) | *okúvɔ́ːkɔ̀* | ? | *okútrwî* | *okʊɣúːlù* | ? | |
| Tooro (E12) | *(omukónò)* | ? | *okútù* | *okugúrù* | ? | |
| Nyankore (E13) | *(omukono)* | *okhwahwa* | *okutu* | *okuguru* | *(eibega)* | *okuju* 'knee' |
| Luganda (E15) | ? | ? | *kùtû* | *kùgúlú* | ? | |
| Gisu (E31) | *(gúmúkònò)* | ? | *kukutu* | ? | ? | |
| Nata (E45) | *okụvɔkɔ* | ? | *ogotwe* | ? | ? | |
| Kikuyu (E51) | *ɣʊɔkɔ̀* | ? | *ɣʊtŭ* | *kʊɣʊrʊ* | ? | |
| Kamba (E55) | *kw'oko* | ? | *kũtũ* | *kũũ* | *(kĩtuo)* | |
| Pfokomo (E71) | *(mukono)* | ? | *(sikio)* | *kuguu* | ? | |
| Kesukuma (F21) | *kokǫ̀nǫ̀* | ? | *kotò* | *kogolo* | *(ibẹga)* | *koloombo* 'cuisse (d'animal)' (Fr.) |
| Kinyamwezi (F22) | *kʊβokó* | *(lyaapá)* | ? | *kʊgʊlʊ* | *(iβega)* | |
| Kikongo (H16b) | *kóoko* | ? | *kútu* | ? | ? | |
| Kiyombe (H16c) | *kōko* | ? | *kūtu, kūlu* | ? | ? | |
| Rukwangali (K33) | *kuwoko* | ? | *kutwi* | *kuguru* | ? | |
| Cisubiya (K42) | *kowôoko* | ? | *kotwi* | *koolo* | ? | |
| Thimbukushu (K43) | *kwoko* | ? | *kutwi* | *kughuru* | *(dipeghe)* | *kotombuuru* 'thigh' |
| Fipa (M13) | *kukhono* | ? | *kutwi* | ? | *kwaha* | |
| Icibemba (M42) | *úkubókó* | *úkwapá* | *úkutwí* | *ukuulu* | *ukubea* | |
| Lamba (M54) | *ukuwôoko* | *ukwapa* | *ukutwi* | *ukūlu* | *(icifusi)* | |
| Umbundu (R11) | *ókwók(w)ó* | ? | ? | *ókulù* | ? | |
| Oshikwanyama (R21) | *okuoko* | *(oṅuapa)* | *okutwi* | *okuulu* | *(epepe)* | |
| Oshindonga (R22) | *okwaako* | *(onkwapa)* | *okutsi* | *okugulu* | *(epepe)* | |
| Otjiherero (R31) | *okuoko* | *okuapa* | *okutwi* | *okurama* | *(otjiṭuve)* | |
| Siyeyi (R41) | *(rì.wókò)* | *ù.kw.àpá* | *kù.tí* | *(mó.n/nò)* | ? | |

Figure 33 Nouns for body parts found in class 15 in a selection of Bantu languages
Parentheses indicate non-15 nouns. The data for Subiya and Thimbukushu derive from Schapera & Van der Merwe (1942). Some nouns have optional/alternate forms in other classes than class 15.

1996: 55). Thus the following prefix-less form is acceptable:

*télekyaana* — Kimatuumbi (Odden 1996: 55)
télekya ana
cook REC
'to cook for each other'

With an overt prefix, as in the hypothetical **kụtélekyaana*, an unacceptable form would have resulted (indicated by a superscript tumbling cross). With incorporated object concords, however, an overt prefix may be used, although not necessarily. Thus both variants below are fully acceptable:

*kụnịbóna*
kụ nị bóna
NP.15 1SG see
'to see me'

*nịbóna*
nị bóna
1SG see
'to see me'

In a large number of Bantu languages, there is a small number of non-infinitive nouns that are classified together with infinitives in class 15. Most of these are words for body parts, specifically 'arm, hand', 'armpit', 'ear', 'leg', and 'shoulder' (see figure 33). These are found in class 15 together with the infinitives all over the Bantu area, with the exception of the southern and south-eastern areas. However, it is likely that words for these body parts have once been classified in class 15 also in languages of these latter areas. In Isizulu, for instance, the word for 'armpit' is obviously related to the other words for 'armpit' tabulated in figure 33; and not only that, but there is clearly a remnant of an older *ku*-prefix in the noun stem.

*i(li)khwapha* — Isizulu (Doke et al. 1990: 21)
i(li) khwapha
NP.5 armpit
'armpit'

This kind of reanalysis, whereby a former prefix has been reanalysed as part of the noun stem, seems in fact quite common in Bantu languages. A kind of half-way



step towards a full reanalysis of the *ku*-prefix can be seen in Ciokwe, where we find the singular forms *kwoko* 'arm' and *kulu* 'leg' contrasted to the plural forms *moko* 'arms' and *molu* 'legs' respectively. The prefixes involved are clearly those of classes 15 (*ku*-) in the singular and 6 (*ma*-) in the plural (White 1944: 159). Curiously enough, the singular forms employ class 5 concords, while infinitives, also with a *ku*-prefix, take class 15 concords.

Interestingly, three of the Thimbukushu items given in figure 33 are used only by the older generation, while the younger generation classify the same nouns in class 5 (Fisch 1977: 38; see also figure 34).

| | OLDER GENERATION | YOUNGER GENERATION |
|---|---|---|
| 'arm' | *kwoko* 15/6 | *dyoko* 5/6 |
| 'ear' | *kutwi* 15/6 | *ditwi* 5/6 |
| 'leg' | *kughuru* 15/6 | *dighuru* 5/6 |

Figure 34 Generation-differences in Thimbukushu noun classification (Fisch 1977: 38)

As regards the fourth item, *kotombuuru* 'thigh', it derives from Schapera & Van der Merwe (1942: 73) who list it together with the other three nouns but make no mention of any generational differences in usage.[48] There are other body parts occasionally classified in infinitive class 15, but these seem clearly to be idiosyncracies of individual languages, for instance, *sú* 'visage' (Fr.) in Mbɛnɛ,[49] *okuju* 'knee' in Nyankore, and *koloombo* 'cuisse d'animal' (Fr.) in Kesukuma.

Non-infinitive class 15 nouns other than those for body parts constitute a very small category (see figure 35). They also seem to have very restricted occurrences; for instance, *lép* 'rivière' (Fr.) is only found in Mbɛnɛ, *okuti* 'veld' and *okuvare* 'sea' are only found in Otjiherero, *okwena* is found in Oshikwanyama meaning 'den, lair, cave' and in Oshindonga meaning 'hole'. Interestingly, the word for 'moon, month' is classified as a class 15 noun in the north-eastern area (Kɔnzɔ, Tooro, Nyankore) as well as in at least two south-western languages (Rukwangali, Siyeyi).

If we compare the words for 'moon' in figure 35, which are all class 15 nouns, with that in Bukusu, where we find the word for 'moon' in class 3, we can

48 Wynne (1980: 551) gives the word *ditami*, a 5/6 noun, for 'thigh'.

49 The Mbɛnɛ forms given in figure 33 (as well as figure 35) might need some explanation. The class 15 prefix is not visible in all nouns. Dimmendaal (1988: 42) gives only one class 15 noun with a visible prefix, namely, *w-ɔ́ɔ́* 'bras' (Fr.), while other class 15 nouns are given with zero-prefixes, as in *ø-kòò* 'jambe' (Fr.). Presumably their class 15 allocation has been determined on the basis of what concords they take.

| | |
|---|---|
| Mbɛnɛ (A43) | *lép* 'rivière' (Fr.) |
| Kɔnzɔ (D41) | *ókwéɱɽ̀* 'moon, month' |
| Kirundi (D62) | *ukwèzi* 'lune' (Fr.) |
| Tooro (E12) | *okwézì* 'moon, month' |
| Nyankore (E13) | *okwezi* 'moon, month' |
| Rukwangali (K33) | *kwedi* 'moon, month' |
| Oshikwanyama (R21) | *okwena* 'den, lair, cave'<br>*okuwike* 'place of higher education' |
| Oshindonga (R22) | *okwéga* 'thorn'<br>*okwena* 'hole' |
| Otjiherero (R31) | *okuiya* 'doring' (Afr.)<br>*okuti* 'veld' (Afr.)<br>*okuvare* 'see' (Afr.) |
| Siyeyi (R41) | *o.kw.ézí* 'moon, month' [50] |

Figure 35 Non-infinitive nouns in class 15 other than those for body parts

see a certain similarity in form, which is due to the fact that Bukusu is an augment-using language.

*kúmwè: sì* — Bukusu (De Blois 1975: 184)
kú mù jésì
A NP.3 moon, month
'moon, month'

In a handful of north-eastern Bantu languages, the augments of classes 3, 4 and 6 have forms with initial plosives while the initial elements of the prefixes proper are nasals; thus the augmented class 3, 4 and 6 prefixes in Bukusu display forms like *kumu-*, *kimi-* and *kama-* respectively, while most other augments are identical to the prefixes proper, like *baba-* of class 2, *didi-* of class 5, *sisi-* of class 7, and so on (De Blois 1975: 84; see also figure 25 earlier). Similarly in the southern dialect of Gisu, we find the augmented prefixes *gumu-* of class 3, *gimi-* of class 4, and *gama-* of class 6 (Tucker & Bryan 1957: 21f). Forms like these might give us reason to assume that many of the words for 'moon, month' found in infinitive class 15 could be the result of prefix-drops; that is, historically the *ku*-like elements are in fact augments that have been reanalysed as (new) noun prefixes. This could (hypothetically) explain the various noun forms for 'moon, month' which

[50] The Siyeyi item derives from Sommer & Vossen (1995: 469). Their informants give in fact different forms, most of which are classified in class 15, while some are classified in class 3.



| | |
|---|---|
| Rukwangali (K33) | *kufu* 'kalte Jahreszeit' (Ger.)<br>*kurombo* 'Regenzeit' (Ger.)<br>*kwenye* 'summer' |
| Rugciriku (K38) | *ku.fù* 'Winter, kalte Jahreszeit' (Ger.)<br>*ku.rómbo* 'heiße Jahreszeit' (Ger.)<br>*kw.éɲe* 'Frühling' (Ger.)<br>*kw.édi* 'Zeit des Monats in der der Mond nachts scheint' (Ger.) |
| Oshikwanyama (R21) | *okufu* 'winter'<br>*okulombo* 'late summer'<br>*okwenye* 'early summer' |
| Oshindonga (R22) | *okufu* 'winter'<br>*okwenye* 'summer' |
| Otjiherero (R31) | *okuni* 'lente' (Afr.)<br>*okurooro* 'reëntyd, somers' (Afr.)<br>*okupepera* 'winter, cold cloudless time' |
| Isizulu (S42) | *ukwindla* 'autumn' |

Figure 36 Selected words for seasons in southern and south-western Bantu languages

sometimes exhibit *mu*-prefixes (like *úmweshí* in Icibemba), sometimes *ku*-prefixes (like *okwezi* in Nyankore). This seems unlikely, however, since such a process would presumably have resulted in 15/4 pairings, that is, an original 3/4 pairing via prefix-drop and reanalysis of augment to a 15/4 pairing. Instead we find 15/6 as the commonest pairing for words for 'moon, month' in class 15.

In a number of south-western and southern Bantu languages we find various words for seasons, such as 'winter', 'autumn', 'cold season', 'rainy season', and so on, often classified in a class with a *ku*-like prefix (see figure 36). Most grammars define this prefix as that of class 17, like Doke (1963a) for Isizulu and Möhlig (1967) for Rugciriku. The partly odd thing about finding nouns for seasons (and other terms) in class 17 is that it is a so-called locative class, together with classes 16 and 18.[51] These classes are normally used in an adverbial sense together with nouns ordinarily classified in other classes, as in the following examples based on the Oshindonga word *aantu* 'people' (class 2):

*páantu* — Oshindonga (Fivaz 1986: 152)
pa aa ntu
NP.16 NP.2 human being
'among the people'

[51] As well as class 23. I return to this, and the other locative classes, in chapter 4.

*káantu*
ku aa ntu
NP.17 NP.2 human being
'to/from the people'

*máantu*
mu aa ntu
NP.18 NP.2 human being
'among the people'

Besides the few seasonal terms already mentioned above, some nouns with locative-adverbial significance of some sort find their basic, or primary, classification in these classes. Usually these have some locative or spatial-relational significance. A word meaning simply 'place' is especially common to find in any or all of these classes. For instance, in Kiswahili we find *pahali* and *mahali* in classes 16 and 18 respectively (Lodhi & Otterbrandt 1987: 14), and in Kikuyu we find *hàdwò* and *kwòndwò* in classes 16 and 15=17 respectively (Bennett et al. 1985: 280f). Also others exist; I return briefly to these further below. Isolated examples of non-locative nouns classified in a locative class also occur. For instance, in Isizulu we find *ukunto* 'something indefinite', *ukuthokozi* 'toy, plaything', *ukuntoko* and *ukuntokazi* both meaning 'toy, pet' in class 15=17 (Doke 1963b: 63). As for Fipa, Struck (1911: 968) classifies *kuńkholelo* 'Vorderseite' (Ger.), *kumphelekešo* 'Hinterseite' (Ger.), *kuluthala* 'Außenseite' (Ger.) together with words for 'ear' and 'shoulder' in class 17, while reserving class 15 solely for the infinitives. More probably, the locative nouns alone should be classified in class 17, while the body part terms should be classified together with the infinitives in class 15 unless classes 15 and 17 have merged, in which case they all end in the same class. (Struck's data are too fragmentary for a conclusive answer on this.)

The incorporation of loan words can provide some evidence for semantic regularity; see, for instance Van Warmelo (1929) for some Sesotho data, Whiteley (1967) for Kiswahili data and Echegaray (1967) for data on some north-western Bantu languages. However, the incorporation of loan words does not always follow semantic principles; sometimes phonetic criteria are used, sometimes semantic. Occasionally the initial element of the source word is reanalysed as a prefix, provided it conforms phonetically to an already existing prefix form. For instance, English *kiss* has been adapted into Kiswahili as *kisi*, where the initial *ki-* element of the source word has been reanalysed as a class 7 prefix *ki-* (Whiteley 1967: 168). Similarly with *kitabu* 'book', which derives from Arabic *kitabun* 'a book' or *al kita:b(u)* 'the book' (Johnson 1939: 208; Abdulaziz Lodhi, pc). In Setswana we find *sekólō* 'school', originating from Afrikaans *skool*,[52] in which the initial *s*-element has been reanalysed as a class 7 prefix *se-* (Snyman et al. 1990: 322). English *machine* has been adapted into Tshivenda as *mutshini* in which the initial *ma*-element has been reanalysed as a class 3 prefix *mu-* (Poulos 1990: 77). Reanalysis does not always take place. Instead a prefix is added onto the foreign form, as in Setswana *mokeresete* from English *Christian*, *mohêitane* from Afrikaans *heiden* 'heathen', *mopôrôfêti* from English *prophet*, all with an added class 1 prefix *mo-* (Cole 1955/1975: 125).



Most loan words, however, require neither reanalysis nor the addition of a new prefix. In most Bantu languages, there exist a small number of noun classes whose noun prefixes could be characterized as phonetically unpredictable to a lesser or higher degree. This concerns in particular noun prefixes of classes 1a and 9, and in some languages also class 5. Class 9 nouns, for instance, usually lack an easily recognizable noun prefix, either because the noun prefix of class 9 is a zero-morpheme or because it consists of a nasal that adapts to the initial phonetic segment of the noun stem (or even disappears in some contexts). For instance, in Setswana we find class 9 nouns with various initial elements, like *nta* 'louse', *tlhase* 'spark', *podi* 'goat', *tsêbê* 'ear', *koko* 'fowl', and *pula* 'rain' (Cole 1955/1975: 87ff), and in Kimatuumbi we find *ñ-ímo* 'weeded lands', *ñ-eémbe* 'shaving knives', *ébyo* 'winnowing devices', *aanjú* 'firewood', *até* 'banana hands', and *paámba* 'cotton wool' (Odden 1996: 25). Thus, since the phonetic predictability of nouns in class 9 is rather low in many Bantu languages, loan words are often allocated to these two classes. The same reasoning applies to class 1a, which practically always comes with a zero-prefix in those languages where we find it, and class 5 which tends to have a highly adaptable prefix in many languages.

In some languages there are hints of semantic principles deciding which phonetically unpredictable class is chosen for individual loan words. For instance, while the great majority of (modern) loan words in Kiswahili go into classes 5 and 9, nouns denoting humans are usually allocated to class 1a, although they can easily find their way into a number of other classes as well (see Whiteley 1967). In Icibemba, nouns denoting abstract concepts are usually allocated to class 14, but the majority of loan words are found in class 1a "regardless of the concept they express" (Richardson 1967: 383). Loan words occur commonly in class 9, too, and infrequently in many others (idem).[53] There is much more to be said about loan

[52] Or possibly English *school*; see Janson & Tsonope (1991: 138), who give the form *sekole*. Kgasa & Tsonope (1995: 249) give *sekole* and *sekolo* as variants.

[53] Says Richardson (1967: 383, note 10): "It may well be that in [Icibemba] (as in other languages) certain classes have been 'fashionable' at different times depending on the current foreign cultural influence."

words, but since I have not gathered data for a full comparative treatment here, I leave it at this.

The above lexicosemantic survey, though fairly small and skimming at the top, shows that even though there are some more or less obvious semantic tendencies that recur in many languages, there are difficulties for proposing meta-systems applicable to all, or even most, Bantu languages. This, however, is not necessarily true when dealing with individual semantic domains, such as nouns denoting humans. In fact, I have deliberately excluded from the above survey one particular area of semantic regularity inherent in Bantu noun class systems which seems to be fairly uniform over large parts of the Bantu area (though not the entire area). This concerns so-called secondary classification, a strategy by which the system of noun classification can be used for derivational purposes. The formation of locatives described above belongs in this category, as does the formation of, for instance, diminutives and augmentatives.

### 3.3.3 The formation of diminutives and augmentatives

The inherent noun class belonging of a noun is often referred to as its 'basic' or 'primary' classification. This has been the main subject matter of the preceding subsections. However, a noun can occur in noun classes other than what is determined by its primary classification. This is sometimes referred to as 'secondary classification'.[54] Locative classes were briefly introduced above, and these constitute a typical case of secondary classification, at least in those languages where they are productive. Locatives are treated in the next subsection. Here I will concentrate on the formation of diminutives and augmentatives.

A common secondary function inherent in many Bantu noun class systems is the diminutive formation. Diminutive nouns can be constructed by transferring, so to speak, a non-diminutive noun from its primary class belonging to a special class associated with diminutiveness. For instance, if we want to say 'small dog' in Luganda, we can either use an adjective construction or derive a new noun meaning exactly that. This we do by reclassifying *`mbwâ* 'dog', which belongs to class 9, into the diminutive class 12, which thus becomes *kàbwâ* 'small dog, puppy'.

[54] The terminology 'primary' and 'secondary' in this context derives, I think, from Fortune's (1955; 1957; 1970) analysis of Chishona, in which he talks of prefixes in 'primary' and 'secondary function' (1955; 1957) as well as 'primary' and 'secondary noun prefixes' (1970). I return to Fortune's works further below. Gregersen (1967: 15ff) uses the terms 'class prefix' and 'plural prefix' (= Fortune's 'primary prefixes') and 'independent prefix' (= Fortune's 'secondary prefixes'). It should be pointed out that although the word 'prefix' occurs here, the proper reference is to a noun class, not a specific morpheme.



*`mbwâ* — Luganda (Cole 1967: 36+44)

| | |
|---|---|
| N | bwâ |
| NP.9 | dog |

'dog'

↓

*kàbwâ*

| | |
|---|---|
| kà | bwâ |
| NP.12 | dog |

'small dog, puppy'

Identical, or near-identical, constructions are found in many Bantu languages, though not always with class 12; for instance, class 19 is common especially in the northern Bantu area.

*xâ: xé: kí* — Bukusu (De Blois 1975: 91)

| | |
|---|---|
| xaxa | jìgì |
| NP.12 | door |

'small door' — Cfr *lú: lwí: kí* 'door' (class 11)

*kapembe* — Lwena (White 1949: 11)

| | |
|---|---|
| ka | pembe |
| NP.12 | goat |

'little goat' — Cfr *pembe* 'goat' (class 9)

*okangoho* — Otjiherero (Booysen 1982: 58)

| | |
|---|---|
| oka | ngoho |
| NP.12 | ring (Afr.) |

'little ring' — Cfr *ongoho* 'ring' (class 9)

*ihuha* — Nkutšu (Van Hove 1911: 388)

| | |
|---|---|
| i | huha |
| NP.19 | araignée (Fr.) |

'little spider' — Cfr *dihuha* 'spider' (class 5)

Classes 12 and 19 are the most oft-occurring diminutive classes, but also other classes are used. I return to this in the next chapter.

| LANGUAGE | SINGULAR | PLURAL |
|---|---|---|
| Mbɛnɛ (A43) | măn (ù) NOUN | ɓɔ̀n bá NOUN |
| Tùnɛn (A44) | hén (a) $NOUN_{ANIM}$ | ? |
| Bafia (A53) | máá ´-NOUN | B>> ´-NOUN [55] |
| Northern Ntomba (C35a) | ngan'o NOUN | ? |
| Bolia (C35b) | bon'o NOUN | ? |
| Buja (C37) | ma(na)a NOUN | wana wa-NOUN |
| Ngɔmbɛ (C41) | mɔ̆-NOUN | bă-NOUN |
| Kiyombe (H16c) | muā(na) NOUN | bana bi-NOUN |
| Emakhuwa (P31) | mwa-NOUN | mwa-NOUN |
| Lomwe (P32) | mwa-NOUN | aci-NOUN *or* aʃi-NOUN |

Figure 37 Diminutives formed with a full or partial word meaning 'child'

Some Bantu languages have developed innovative diminutive prefixes (see Kadima 1969: 178ff). Commonly in these languages, a word for 'child' has grammaticalized into a diminutive marker; sometimes the entire word is used, sometimes only the initial syllable. The attested constructions are tabulated in figure 37.[56] In Bolia, for instance, the word *bon'o* 'child' is used as a regular diminutive prefix, as in *bon'okapi* 'a small paddle' (Kadima 1969: 179). Huth (1992) discusses a similar diminutive formation in Kikongo, where we find *mwáánambwa* 'little dog', which derives from *mwáána* 'child' and *mbwa* 'dog' (class 9). Other languages use only a reduced form. Thus we find a diminutive prefix *mwa-* in Emakhuwa and Lomwe (Kadima 1969: 179). There are also languages where we find both a full and a reduced form used. In Kiyombe, singular diminutives can take three different forms (apparently with no change in meaning).

*fimbēle* — Kiyombe (De Clercq 1907: 456)

| | | |
|---|---|---|
| fi | N | bēle |
| NP.19 | NP.9 | couteau (Fr.) |
| 'a small knife' | | |

[55] The orthography is that used by Guarisma (1969). The symbol '>' represents a low *a*-like vowel (idem: 28).

[56] There are also 'child'-derived diminutive suffixes, but these are purely derivational morphemes and take no part in the functioning of the noun class system. In Setswana, for instance, we find *-ana*, *-nyana* and *-anyana* (Cole 1955/1975: 105). Similar suffixes are found in other southern Bantu languages, like Isizulu (Doke 1963a: 73ff), Siswati (Ziervogel & Mabuza 1976: 40ff) and Tshivenda (Ziervogel et al. 1981: 122). Outside the southern Bantu area, 'child'-derived diminutive suffixes occur in Rugciriku (Möhlig 1967: 140), Rukwangali (Dammann 1957: 97f), Otjiherero (Booysen 1982: 141f), and Luyana (Kadima 1969: 178).



*muāna mbēle*

| | | | |
|---|---|---|---|
| mu | āna | N | bēle |
| NP.1 | enfant (Fr.) | NP.9 | couteau (Fr.) |
| 'a small knife' | | | |

*muambele*

| | | |
|---|---|---|
| mua | N | bēle |
| 'child'-DIM | NP.9 | couteau (Fr.) |
| 'a small knife' | | |

In plural, however, there seems to be only one alternative.

*bāna bi mbēle*

| | | | | |
|---|---|---|---|---|
| ba | ana | bi | N | bēle |
| NP.2 | enfant (Fr.) | NP.8 (?) | NP.9 | couteau (Fr.) |
| 'small knives' | | | | |

It remains to be investigated to what extent these 'child'-derived diminutive prefixes form part of the noun class systems as such, for instance, how they affect or do not affect the use of concords. As for Kiyombe, De Clercq (1907: 783) claims that the concords appearing on verbs are those of class 19, at least in the singular. No data are given for the plural, but the previous example indicates that class 8 is involved. (Pairing 19/8 for diminutives is attested for neighbouring Laadi as well as Central Kikongo.) The diminutive *mwa-*prefix in Kikongo seems also to be associated with the concords of class 19, at least judging by the examples provided in the conference handout by Huth (1992: 2). If it is the case that these innovative diminutive prefixes take the concords of a "regular" diminutive class operating in the language, then one would be inclined to see the 'child'-derived diminutive words/prefixes as mere allomorphs of, in the case of Kikongo and Kiyombe, the class 19 prefix *fi-*.[57]

Another common notion conveyed by secondary classification is that of augmentativeness. Classes 5 and 7 are the most-used augmentative classes, but their geographical distribution is somewhat restricted (see chapter 4 on this).

[57] It is interesting to note in connection with this that the prefix of class 19 "is likely to be derived from the Niger-Congo noun stem **-bi* 'child' " (Heine 1982: 214).

*ḽiḓu* — Tshivenda (Poulos 1990: 31)
ḽi ḓu
NP.5 hut
'big hut' Cfr *nnḓu* 'hut' (9)

*otjihwa* — Otjiherero (Booysen 1982: 44)
otji hwa
NP.7 bos, struik (Afr.)
'big forest' Cfr *ehwa* 'forest, bush' (5)

*gúù.só* — Luganda (Cole 1965: 50)
gúù só
NP.20 eye
'enormous eye' Cfr *lîi.só* 'eye' (5)

Diminutives and augmentatives are not the only semantic notions conveyed through secondary classification. Ameliorativeness and derogativeness are also often involved. In Oshindonga, for instance, class 5 functions as an augmentative class, sometimes together with derogativeness, while class 7 functions as a derogative class.

*entú* — Oshindonga (Fivaz 1986: 38+40)
e ntú
NP.5 person
'large person (derogatory)' Cfr *omǹtu* 'person' (1)

*oshilóngi*
oshi lóngi
NP.7 worker, teacher
'bad worker, teacher' Cfr *omǹulóngi* 'worker, teacher' (1)

As already mentioned, derogatory senses of various kinds can be conveyed also by other classes. In Setswana, nouns denoting ethnic groups normally appearing in classes 1/2 can occasionally be used with classes 5/6 instead. Thus while, for instance, a Kgalagadi person would normally be referred to as *mokgalagadi* (class 1), the class 5 form *lekgalagadi* would be used "when disparagement is intended" (Cole 1955/1975: 81). In Zezuru, classes 3 and 21 are jointly used to signify 'monstrosity of size', albeit rarely. "It is considered very insulting unless it be the



expression of a somewhat exacting sense of humour. It does not seem to be widely used" (Fortune 1955: 72).

*muzirume* — Zezuru (Fortune 1955: 72)
mu zi rume
NP.3 NP.21 man
'monster of a male' Cfr *murume* 'man' (1)

Class 3 alone is used for entities "which are large but unpleasant in various ways. Natural features are referred to as dangerous; people as harsh, hard, unyielding; objects as useless or unsuitable. In the background, yet common to all the individual connotations, is the image of a certain shape — large, angular, flat, without due rounding or curves, hence ugly, ill-proportioned, without due shape, and useless" (Fortune 1970: 93f).

Classes 2 and 2x have uses other than just being plural classes for singular classes 1 and 1a. In Northern Sotho, for instance, the word *bôtatê*, with a class 2b *bô*-prefix, may be used to mean either 'fathers' (ordinary plural) or 'father and company' (so-called associative plural), or as an honorific form when addressing either 'father' or 'father and company' (Lombard et al. 1985: 36). Similar uses for the class 2x prefix are found also in other southern Bantu languages, for instance, Setswana (Cole 1955/1975: 72ff) and Tshivenda (Ziervogel et al. 1981: 13f+92). In Lingala, too, there are similar uses of the class 2 *ba*-prefix, as in *baYoáne* 'all John's people and associates', which for some speakers "carries an honorific connotation" (Guthrie & Carrington 1988: 15). The honorific use of class 2 or 2x seems mostly to be restricted to kinship terms and personal names in those languages where it occurs. Doke (1927: 198) also gives a few examples of words for 'God' and/or 'chief' as being used in a (grammatically) plural form in Icibemba, Lamba and Ciyao also when a singular sense is intended. For most languages, however, grammar descriptions make no mention of honorific use of class 2 or 2x at all, which in itself does not mean that the phenomenon does not exist in these languages. The associative plural use of class 2 or 2x is, on the other hand, often mentioned and seems widespread across the Bantu area. Besides the already-mentioned languages, we find it also in, for instance, Oshikwanyama (Turvey et al. 1977: 111), Thimbukushu (Fisch 1977: 24) and Luganda (Cole 1965: 28).

There are several features that complicate matters as I have described them above. For instance, in the north-western area we find languages that require reduplicated stems in diminutive constructions.

*isisina* — Ifumu (Calloc'h 1911: 69)
i sisina
NP.19 allumette$_{\text{reduplicated stem}}$ (Fr.)
'small match' Cfr *isina* 'match' (7)

*ikakana*
i kakana
NP.19 lettre$_{\text{reduplicated stem}}$ (Fr.)
'small letter' Cfr *mukana* 'letter' (3)

In Nkutšu class 19 is used to form diminutives, but also mere reduplication of the noun stem produces diminutives, that is, without the addition of any overt prefix.

*idia* — Nkutšu (Van Hove 1911: 388)
i dia
NP.19 nuage (Fr.)
'small cloud' Cfr *didia* 'cloud' (5)

*šakasaka*
(ø) šakasaka
(—) panier$_{\text{reduplicated stem}}$ (Fr.)
'small basket' Cfr *saka* 'basket' (5)

Both of the above-exemplified diminutive nouns take class 19 concords, however, so they have clearly been reclassified into diminutive class 19, even though only the first of the examples shows an overt noun prefix.[58]

The meaning of a secondarily classified noun is not always fixed. For instance, the Zezuru noun *chikádzi* (class 7), derived from *mukádzi* 'woman' (class 1), may be used to mean either 'an indifferent sort of woman' (imperfection), 'a short, stout woman' (shortness/stoutness) or 'the ways of a woman' (characteristics) depending on the intentions of the speaker and/or the context (Fortune 1970: 88+99f). In other languages, several classes are simultaneously used for one and the same purpose, as in Silozi, where augmentative nouns may be formed by way of secondary classification into class 3, 5 or 7. It is interesting to note, however, that they all form their plurals in class 8 (Gowlett 1989: 137).

58 It is interesting to compare this with reduplication as it is used in, for instance, Tshivenda, where reduplicated nouns "take on a significance of goodness, kindness, pleasantness, genuineness, preciseness, sincerity, etc." (Poulos 1990: 72). Thus *muthu* 'man' (class 1) becomes *muthu-muthu* 'a kind man', *muri* 'tree' (class 3) becomes *muri-muri* 'a real, solid tree' (idem: 73). However, note that no class change has occurred here.



In quite a number of Bantu languages, noun classes used for secondary classification are simultaneously used also for primary classification. In Kiswahili, for instance, class 7 functions as the diminutive class, as in the following example:

*kidege* — Kiswahili (Perrott 1957: 30)
ki dege
NP.7 bird
'little bird' Cfr *ndege* 'bird' (9)

However, a fair amount of nouns find their primary class belonging in class 7, for instance, *kitabu* 'book', *kisu* 'knife', *kiti* 'chair', *kiazi* 'potato', *kisiwa* 'island', *kioo* 'glass, mirror', *kitanda* 'bed', and others (idem: 7ff). These nouns are not diminutive versions of nouns otherwise classified elsewhere. When these nouns need to be diminutivized, they keep their class 7 prefix and take an infix *-j(i)-*, as in *kijitabu* 'little book' (idem: 31). Thus the mere presence of a *ki*-prefix in a Kiswahili noun does not in itself signify diminutiveness. Instead we would want to see the meanings conveyed by secondary classification as produced by the "clash" between an expected noun form, or the default-form, and the actually used noun form (see also Fortune 1970: 88). Thus attaching "secondary meanings" to the prefixes themselves would seem unwise. Still, referring to them as 'diminutive prefix', 'augmentative prefix' and so forth is nonetheless convenient.

### 3.3.4 Locatives

One of the most common secondary functions is that associated with the so-called locative classes 16, 17 and 18. (There is also class 23, which I return to separately below.) "In some languages, these are not reflected as basic noun prefixes at all, but appear only in the concordial system. The prefixes may appear before or in addition to other prefixes, with nouns referring to places" (Welmers 1973: 167). A few examples from Oshindonga were already given above, others will be given below. The main point here is only to make a brief survey of some peculiar characteristics; see also Růžička's (1959; 1960) earlier survey.

A methodological difficulty in collecting data about the locative classes is that they are inconsistently described by grammarians, at least from a comparative perspective. Růžička (1959) encountered this when collecting data for his survey of locative formations in Bantu languages: "having studied the grammar-books, I was exceedingly surprised how very complicated and confused the book[s] on this category were. I have not found merely two Grammars which would agree with each other in the opinion on a number of locative classes. Some authors state a

single class, others two, others three or four classes. Some authors state a single class with one prefix only, whereas in the section of 'adverbs' and 'prepositions', they all speak of three locative prefixes" (idem: 209). Thus locative classes are often described separately from the noun classes. This is partly due to the fact that besides a very small number of basic roots classified in the locative classes, they are mostly used with nouns of other classes. And often the derivative result is not used as a noun at all, but as an adverb.

In many (most?) languages, there is only a very limited set of primary nouns associated with these classes, and their meanings deal almost exclusively with locative-adverbial (or spatial-relational) concepts of some sort, like 'place', 'on-the-ground', 'on-top', and so on. In Kamba, for instance, locative noun classes are used only with a single root: *vandũ* 'place' in class 16 with plural *kũndũ* in class 18 (Whiteley & Muli 1962: 54). In Tshivenda we find *fhasi* 'down, below, on the ground' and *fhethu* 'place' in class 16, *kule* 'far' in class 17, and *murahu* 'behind, at the back' in class 18 (Poulos 1990: 61). In Isizulu, *ukunene* 'right side' and *ukunxele* 'left side' are found in class 15=17 (Doke 1963b: 63), and in Icibemba, *úkulyó* 'righthand' and *úkusó* 'lefthand side' are found in class 17 (Guthrie & Mann 1995: 138+147).

When nouns from other classes are (secondarily) classified in these locative classes, they, too, get a locative significance. Says Welmers (1973: 167): "In a few Bantu languages, and in many non-Bantu Niger-Congo languages, reflexes or cognates of */pa-/, */ko-/, */mo-/ function somewhat like prepositions. Generally, 16 refers to near or explicit location, 17 to remote or general location, and 18 to location inside."

*pólwí* — Umbundu (Schadeberg 1990: 11)

| | | |
|---|---|---|
| pa | ólu | dwi |
| NP.16 | NP.11 | river |

'on, at, near the river' Cfr *ólulwi* 'river' (11)

*kólwí*

| | | |
|---|---|---|
| ku | ólu | dwi |
| NP.17 | NP.11 | river |

'at, to, from the river'

*vólwí*

| | | |
|---|---|---|
| vu | ólu | dwi |
| NP.18 | NP.11 | river |

'in the river'



*ku thengo* — Nyungwe (Dos Anjos Martins 1991: 33)

| | | |
|---|---|---|
| ku | (ø) | thengo |
| NP.17 | (NP.5) | bosque (Port.) |

'in the woods' Cfr *thengo* 'forest, woods' (5)

*muŋanda* — Icibemba (Van Sambeek 1955: 14)

| | | |
|---|---|---|
| mu | (i)N | anda |
| NP.18 | NP.9 | hut, house |

'in the hut/house' Cfr *iŋanda* 'hut, house' (9)

Secondary classification usually does not entail a change of syntactic status; that is, secondarily classified nouns are still nouns, and as such they govern concords as they did before, albeit new ones. This is certainly true for augmentatives and diminutives. When it comes to the locatives, these tend to be used like adverbial complements rather than nouns. However, in most languages where we find productive uses of classes 16, 17 and 18, we find not only a set of noun prefixes, but also a series of concords associated with these, and classifying them as adverbs would seem faulty.

*muŋganda muli abantu abengi* — Icibemba (Van Sambeek 1955: 14)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| mu | (i)N | anda | mu | li | aba | ntu | aba | ingi |
| NP.18 | NP.9 | hut, house | SC.18 | COP | NP.2 | human | AC.2 | many |

'there are many people in the house' (lit. 'in-the-house is/are many people')

*fhasi hu a fhisa* — Tshivenda (Poulos 1991: 62)

| | | | | |
|---|---|---|---|---|
| fha | si | hu | a | fhisa |
| NP.16 | ground, below | SC.16 | TMA | be hot |

'on the ground/below, it is hot'

*u a hu vhona fhasi?*

| | | | | | |
|---|---|---|---|---|---|
| u | a | hu | vhona | fha | si |
| 2SG | TMA | OC.16 | see | NP.16 | ground, below |

'do you see the bottom?'

Kiswahili has lost the locative noun prefixes, at least they are not productively used in secondary classification. Instead locatives are formed with a suffix *-ni*.[59] However, the concords of classes 16, 17 and 18 have been retained.

[59] The use of a similar locative suffix is quite common in the eastern Bantu area (see Růžička 1959).

*watoto wanasoma nyumbani mwa mwalimu* — Kiswahili (Perrott 1957: 25f)

| wa | toto | wa | na | soma | (N) | nyumba | ni | mwa | mu | alimu |
|---|---|---|---|---|---|---|---|---|---|---|
| NP.2 | child | SC.2 | TMA | read | (NP.9) | house | LOC | PC.18 | NP.1 | teacher |

'the children are reading in the house of the teacher'

*alikwenda mjini kwa mfalme*

| a | li | kwenda | m | ji | ni | kwa | m | falme |
|---|---|---|---|---|---|---|---|---|
| NP.1 | TMA | go | NP.3 | town | LOC | PC.17 | NP.1 | king |

'he went to the town of the king'

*mjini kuna watu*

| m | ji | ni | ku | na | wa | tu |
|---|---|---|---|---|---|---|
| NP.3 | town | LOC | SC.17 | have | NP.2 | human |

'over-there-at-the-town has people'

In Kamba, too, locatives are derived from other nouns with a suffix *-nĩ*, but there are no special locative concords. The locative noun retains its original noun class belonging (Whiteley & Muli 1962: 54).

In some Bantu languages, the locative concords have simplified, or even completely merged into a single set, as in Kesukuma, where the class 16 subject concord, *hå-*, is used for all locative classes (Batibo 1985: 245). In Setswana, the subject concord *go-* of class 17 is used (Cole 1955/1975: 230). The merging (or more technically perhaps, syncretization) of the locative concords seems to be more common among southern Bantu languages than elsewhere; possibly it is an eastern phenomenon. Often there are separate series of concords for all three locative classes, but optionally one of the series can be used with any locative, as with Setswana adjectives (see Cole 1955/1975: 139), or else any of the locative concords can be combined with any of the locative noun prefixes, as with the so-called demonstrative copulatives[60] in Tshivenda (see Poulos 1990: 117f).

As the examples above show, when a locative class is used for secondary classification, the noun retains its primary prefix, that is, secondary classification with locative classes always involves an additive (not substitutive) marking process. As mentioned earlier in this chapter, it is usually the outermost prefix which governs concords. However, this is not always so with locatives. In some

[60] "The term 'demonstrative copulative' is a rather cumbersome one, which entails the combination of a demonstrative element, for example, 'here', 'there', and 'over there in the distance' ... and a copulative element such as 'is'. In other words, one is dealing with a predicative form of a demonstrative" (Poulos 1990: 117). The morphological formula behind these constructions is: copulative element + concord + demonstrative stem.



(many?) languages, there is a choice, in which case some meaning-difference is achieved. Compare the following:

*fásethlaréng gógoléele* — Setswana (Demuth & Mmusi 1997: 3f).

| fá | se | tlharé | ng | gógo | léele |
|---|---|---|---|---|---|
| NP.16 | NP.7 | tree | LOC | AC.17 | tall |

'by the tree it is tall'

*fásethlaréng séseléele*

| fá | se | tlharé | ng | sése | léele |
|---|---|---|---|---|---|
| NP.16 | NP.7 | tree | LOC | AC.7 | tall |

'by the tall tree'

There are also other prefixes, as well as a few suffixes, used in the Bantu languages with which one can form various types of adverbs. Most of these are described and surveyed by Růžička (1959). Words with these prefixes never seem to appear in contexts requiring the use of concords, and thus they are never associated with concords and consequently are not treated as part of the noun class systems by grammarians. However, there is at least one exception to this. One other locative prefix does seem to take part in the noun class system. It is here labelled '23'.[61] As a productive noun class, it seems to be very rare. Among the sampled languages, I have only found two languages where a putative class 23 is associated with a set of concords, namely, Luganda and Bukusu; both are located in the extreme north-east. In Luganda, the concords of class 23 "appear to be identical" with those of class 9 (Cole 1965: 52), while in Bukusu they seem to be unique for this class (see De Blois 1975: 84). There are also other languages for which a locative prefix seemingly related to the class 23 prefixes in Luganda and Bukusu has been described. Most authors give little information about concords. I return to this in chapter 4 below.

## 3.4 Bantu noun classes and concords

The present section is chiefly concerned with concords, that is, agreement phenomena. Usually the choice of concords is determined by the noun class belonging of a noun. This is also the underlying assumption in the first three subsections, which deal with concords appearing on adnominals, various pronouns (explained further below) and verbs. However, there are also occasions

[61] The labelling of this (putative) locative class is a mess; see more on this in chapters 4 and 5.

where the concords used are not those associated with the noun class belonging of the governing noun. In particular, this concerns constructions involving conjoined nouns in which the nouns belong to different noun classes. Animate nouns in many languages also require special rule(s) when concords are chosen/used. The last two subsections deal with these latter issues.

### 3.4.1 Concords and adnominals

Concords are found on all sorts of words that are used to qualify nouns. I use the fairly simple term 'adnominal' to refer to these. The adnominals in Bantu languages can be categorized according to whatever concords they take; that is, different sets of adnominals (or adnominal stems) are associated with different concordial series. For instance, Fortune (1957: 173) identifies five different adnominal categories in Zezuru, each of which is associated with its own set of concords (see figure 38). These adnominal categories are labelled 'adjective', 'enumerative', 'demonstrative', 'quantitative' and 'possessive', a set of terms that are fairly common among southern Bantu scholars.[62] Possibly labels such as 'concordial series A', 'concordial series B', and so on, could have been more appropriate, since some of the adnominal categories, at least, do not form semantically coherent categories. Some grammarians do this in fact, like Batibo (1985: 230ff), who gives priority to labels such as 'préfixes dépendants du type I', 'préfixes dépendants du type II', and so on. Be that as it may, the use of labels such as 'adjective' is not completely out of phase with reality. In any case, I need a common terminological basis for comparative reasons, and the traditional labels suffice for this purpose.

It may be worthwhile noting that what are given as quantitative and possessive concords for Zezuru in figure 38 are in fact composite morphemes, that is, concord+*o* and concord+*a* respectively. This does in fact seem true for most Bantu languages where multiple series of adnominal concords can be established, at least when it comes to possessive constructions, which often display this characteristic *a*-element. We find it over most of the Bantu area.[63] Often this *a*-element is given morphemic status and labelled 'associative particle' (Welmers 1963),[64] and thus the entire construction is also referred to as the 'associative

62 These terms were originally introduced by Clement Doke and they are widespread in southern African Bantu studies. See Doke (1943).

63 This type of possessive constructions, that is, with a characteristic *a*-vowel, has a very wide distribution. We find it in, for instance, Duala (Ittmann 1939: 64f), Tùnen (Dugast 1971: 338), Nkutšu (Van Hove 1911: 390), Kiswahili (Perrott 1957: 154f), Fipa (Struck 1911: 969), Tumbuka (Vail 1971: 56), Oshindonga (Fivaz 1987: 85), Setswana (Cole 1955/1975: 159f) and Isizulu (Doke 1961: 115f). It seems to be absent in many rainforest languages like the Manenguba dialect Elong (Richardson 1957: 25), Ngayaba (idem: 32), Ifumu (Calloc'h 1911: 29f) and Bobangi (Whitehead 1899: 19); see also Welmers (1963).

64 Other labels are also used, for instance, 'connectives' (Meeussen 1967: 106) and 'connexives' (Schadeberg 1990: 22ff).



| BM NOS | NOUN PREFIX | CONCORDS Adjectives | Enumeratives | Demonstratives | Quantitatives | Possessives |
|---|---|---|---|---|---|---|
| 1 | *mu-* | *mu-* | *mu-* | *u-* | *o-* | *wa-* |
| 1a | *ø-* | *mu-* | *mu-* | *u-* | *o-* | *wa-* |
| 2 | *va-* | *va-* | *va-* | *va-* | *vo-* | *va-* |
| 2a | *vadzi-* | *va-* | *va-* | *va-* | *vo-* | *va-* |
| 3 | *mu-* | *mu-* | *mu-* | *u-* | *wo-* | *wa-* |
| 4 | *mi-* | *mi-* | *mi-* | *i-* | *yo-* | *ya-* |
| 5 | *(ri)-* | *ri-* | *ri-* | *ri-* | *ro-* | *ra-* |
| 6 | *ma-* | *ma-* | *ma-* | *a-* | *o-* | *a-* |
| 7 | *chi-* | *chi-* | *chi-* | *chi-* | *cho-* | *cha-* |
| 8 | *zvi-* | *zvi-* | *zvi-* | *zvi-* | *zvo-* | *zva-* |
| 9 | *(N)-* | *(N)-* | *i-* | *i-* | *yo-* | *ya-* |
| 10 | *(N)-* | *(N)-* | *dzi-* | *dzi-* | *dzo-* | *dza-* |
| 11 | *ru-* | *ru-* | *ru-* | *rwu-* | *rwo-* | *rwa-* |
| 12 | *ka-* | *ka-* | *ka-* | *ka-* | *ko-* | *ka-* |
| 13 | *tu-* | *tu-* | *tu-* | *twu-* | *two-* | *twa-* |
| 14 | *(u)-* | *hu-* | *hu-* | *hwu-* | *hwo-* | *hwa-* |
| 15 | *ku-* | *ku-* | *ku-* | *ku-* | *kwo-* | *kwa-* |
| 16 | *pa-* | *pa-* | *pa-* | *pa-* | *po-* | *pa-* |
| 17 | *ku-* | *ku-* | *ku-* | *ku-* | *kwo-* | *kwa-* |
| 18 | *mu-* | *mu-* | *mu-* | *mu-* | *mo-* | *ma-* |

Figure 38 Noun class prefixes and concords in Zezuru (after Fortune 1957: 173) [65]
Parentheses indicate postulated "underlying" forms which (can) have various phonological realisations.

construction', a label that might in fact seem more appropriate when we consider the semantics involved (to which I return shortly).

The adnominal stems associated with the possessive concords are usually called simply 'possessives' or 'possessive stems'. These function in much the same way as do possessive pronouns in Indo-European languages.

*egúmbó lyandjé* — Oshindonga (Fivaz 1986: 87)

| | | | |
|---|---|---|---|
| e | gúmbó | li+a | ndje |
| NP.5 | house | PC.5 | my |

'my house'

65 The figure is drawn according to the data as given by Fortune (1957). The identity between classes 15 and 17 is thus presently ignored. See supplementary section A and also chapter 4.

*omafó gágwo*
oma fo g+a gwo
NP.6 leaf PC.6 $its_3$
'its leaves' (referring to *omuti* 'tree' of class 3)

*kitabu changu* — Kiswahili (Perrott 1957: 27)
ki tabu ch+a angu
NP.7 book PC.7 my
'my book'

As long as we deal only with the possessive stems, the semantic relation between these and the nouns seems to be exclusively that of possession.

The so-called possessive concords can also be used with word types other than the possessive stems.

*ukhuni lwenkosi* — Isizulu (Doke 1963a: 118)
u khuni lu+a in kosi
NP.11 firewood PC.11 NP.9 chief
'the chief's firewood'

*ditlhako tsa(ga)nnêu* — Setswana (Cole 1955/1975: 161)
di tlhako ts+a (ga) [66] nnêu
NP.10 shoe PC.10 (NP.1a) what's-his-name
'the shoes of what's-his-name'

*vakulwane vamukanda* — Lwena (White 1949: 21)
va kulwane v+a mu kanda
NP.2 elder PC.2 NP.2 circumcision camp
'the elders of the circumcision camp'

*aanóna yááyehe* — Oshindonga (Fivaz 1986: 86)
aa noná y+áá ye he
NP.2 child PC.2 QC.2=3SG all, whole
'the children of all of them'

66 Often a possessive particle associated with class 1a or 1 is used together with names or nouns referring to specific individuals. The reason why it does so is discussed by Bosch (1977).



It is these types of constructions involving other words/stems than possessives that are more appropriately referred to as 'associative constructions', since they often involve meanings other than that relating to ownership.

*kinzu kiansusu* — Kikongo (Laman 1912: 283)
ki nzu ki+a (N) nsusu
NP.7 gryta (Swed.) PC.7 (NP.9) höns (Swed.)
'a pot (full) of hen'

*thutô yantlha* — Setswana (Cole 1955/1975: 168)
(N) thutô y+a N tlha
(NP.9) lesson PC.9 NP.9 point, direction (≈ first)
'the first lesson'

*kekɔ́ngɔ́lɔ́ kya mwăna* — Lega (Botne & Salama-Gray 1994: xiv)
ke kɔ́ngɔ́lɔ́ ky+a mo ăna
NP.7 stupid (one) PC.7 NP.1 child
'stupid child'

It should be noted that some (many?) languages exhibit constraints in how to use the *a*-marked possessive concords. In Oshindonga, for instance, the possessive a-vowel does not occur before nouns of other classes than 1a and not before adjectives (Fivaz 1986: 85).[67] Thus:

*ondapó yóshiáutó* — Oshindonga (Fivaz 1986: 86)
oN dapó y oshi áutó
NP.9 speed (P)C.9 NP.7 car
'the speed of the car'

The quantitative concords are used only with two adnominal stems in Zezuru, namely, *-ga* 'only' and *-se* 'all'.

67 In Kinyarwanda, a possessive marker is lacking completely in constructions involving inalienable possession, as in *umugóre arásokoza úmwáana umusatsi* 'the woman is combing the child's hair', in which there is no possessive marker relating *úmwáana* 'child' with *umusatsi* 'hair'; and similarly in *íntebe ukuguru* 'leg of the table/chair' (Kimenyi 1978: 46). "When parts of the body occur after the possessive morpheme *-a*, it is not clear whether they are alienable or inalienable. Thus ... [they] may have two meanings, the more natural one being the alienable meaning" (idem). Perhaps the alienable/inalienable distinction plays a role in possessive constructions also in other Bantu languages. I have not surveyed this.

*vakomana vose* — Zezuru (Fortune 1957: 80)

| va | komana | vo | se |
|---|---|---|---|
| NP.2 | boy | QC.2 | all |

'all the boys'

*vafambisi voga*

| va | fambisi | vo | ga |
|---|---|---|---|
| NP.2 | delivery boy | QC.2 | only |

'only the delivery boys'

This seems to be true for other Bantu languages as well (though the concords do not always display any characteristic *o*-vowel). If we take the above two stems as typical quantitative stems and see how many other stems are used with the same set of concords, the number usually is very small. In Oshindonga, we find the same two quantitative stems as in Zezuru (see Fivaz 1986: 61). In Luganda, there are additional quantitative stems with meanings such as 'both' and 'all three' (Cole 1965: 106). In Bukusu, there seems to be only one quantitative stem, *-si* 'all', while *-(j)ómbìí* 'both' takes the same concords as the ones used with numerals (see De Blois 1975: 96+201). The semantic content of the quantitative category seems to be centered around what might loosely be analysed as a universal quantifier of some sort. It is usually a very small category.

The system of demonstratives is very elaborate in some Bantu languages, often distinguishing between several degrees of closeness to speaker and/or addressee, and less commonly also different degrees of emphasis. In Setswana, there are four sets of basic demonstratives. These are postposed, as in *motho yô* 'this person (being near the speaker)', *motho yôo* 'that person (being far from the speaker and near addressee)', *motho yôno* 'this person here (being immediately next to speaker)' and *motho yôlê* 'yonder person (being far from both speaker and addressee)' (examples extracted from Cole 1955/1975: 130ff). The same set of distinctions can be found in many Bantu languages. In Setswana, there are also emphatic forms, which are morphologically derived from the non-emphatic demonstratives. They signify things like 'this very one' (emphatic), 'this very one here' (more emphatic) and a third type glossed as 'all these' which is used mainly in the plural (idem: 134). Counting all the different demonstratives (and ignoring first and second person forms), there are some 100 demonstratives in Setswana. In Thimbukushu, we find 16 demonstrative forms for each noun class, that is, four degrees of closeness with four degrees of emphasis (Fisch 1977: 52ff). The number of demonstratives in Thimbukushu, then, amounts to 224 distinct forms. Their



formation, however, is very regular and predictable, with few or no irregularities. However, not all Bantu languages have such elaborate demonstrative systems. A comparatively small set of demonstratives is found in Kiswahili, a language which exhibits only two sets of demonstratives corresponding to 'this' and 'that', which when noun class distinctions are taken into account amount to about 24 distinct demonstratives (see Perrott 1957: 154f). Furthermore, the 'that' demonstrative can be used to indicate increasing distance with "lengthening the last syllable and raising the voice" (idem: 41). Thus *ametoka kule* 'he has come from over there' may be uttered with lengthening and voice-raising as *ametoka kuleee* with the meaning changed to 'he has come from over there further away' (idem).

The adjective category is usually said to be small in Bantu languages, at least when compared to many other languages. In those languages where it is small, it seems to be restricted to stems designating size, age and appearance, such as 'big', 'small', 'old' and 'beautiful', although other conceptual areas are sometimes included, too, like colours and lower-digit numerals up to five.

*viyuni vikulu* — Tumbuka (Vail 1971: 56)

| vi | (y)uni | vi | kulu |
|---|---|---|---|
| NP.8 | bird | AC.8 | big |

'big birds'

*mité mígùpè* — Kesukuma (Batibo 1985: 229)

| mi | tê | mi | gůpe |
|---|---|---|---|
| NP.4 | arbre (Fr.) | AC.4 | court (Fr.) |

'short trees'

*vhàsádzi vhávhílì* — Tshivenda (Ziervogel et al. 1981: 83)

| vhà | sádzi | vhá | vhìlí |
|---|---|---|---|
| NP.2 | woman | AC.2 | two |

'two women'

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In Kinyamwezi, the adjectives form a large adnominal category, "and there exist productive processes to derive adjectives from verbs" (Maganga & Schadeberg 1992: 81). Adjective stems denoting colours can in some languages be quite elaborate. In Setswana, for instance, we find various adjective stems denoting colours and patterns with specific reference to domestic animals, such as *-birwa(na)* 'black' used only of sheep, *-fitšhwa(na)* 'very dark brown, near black' used of cattle and horses, and *-ngolo* or *-ngolwana* 'black with white or yellowish face and underparts' used of sheep, sometimes dogs (Cole 1955/1975: 142).

In southern Bantu languages, such as Isizulu, Setswana and Sesotho, there is a category of adnominals commonly labelled 'relatives', which is often seen as a category somehow related to the adjectives (see Davey 1984; see also Khumalo 1992: 221ff). Gauton (1994), for instance, makes a case for lumping together adjectives, relatives and enumeratives in Isizulu into a single adnominal category. In fact, in Isizulu it is difficult to distinguish these categories semantically; for instance, *-banzi* 'wide', *-duma* 'tasteless', *-luhlaza* 'green', *-manzi* 'wet' and *-zibhadu* 'speckled' are traditionally classified as relative stems (Doke 1963a: 105f), while *-de* 'long, tall', *-hle* 'nice, good, beautiful', *-sha* 'new', *-bili* 'two' and *-ningi* 'much, many' are traditionally seen as adjective stems (idem: 100f). Despite this, however, there are clear differences in the series of concords associated with relatives and adjectives, even though they are in many respects alike. Some relative concords lack nasals and vowels where corresponding adjective concords have them. Thus while the adjective concord of, say, class 6 is *ama-*, the corresponding relative concord is *a-* (idem: 107).

The enumerative category comprises stems designating concepts such as 'same', 'some', 'what kind?', 'how many?' and sometimes also a few lower-digit numerals. In Zezuru, the enumerative category is limited to only four stems, namely, *-mwé* 'one, the same', *-mwe* 'some, another', *-i* 'what?' or 'of what kind?' and *-pi* 'which?' (Fortune 1957: 95). In Lamba, numerals up to five are included (Doke 1943: 30). In Bukusu, *-ndí* 'other' and *-(j)éné* 'self, same' seem to be sole candidates for this category (see De Blois 1975: 96f). In Lwena, the enumerative concords[68] are used for the numerals one to five, *-ose(na)* 'all', *-eka* 'different', *-nghahi* 'how many?', as well as a handful of stems designating colour, taste and temperature, such as *-tuta* 'cold', *-yema* 'well flavoured', *-chila* 'red', *-ilava* 'black', *-tomonoka* 'whitish' (White 1949: 17f).

In addition to the adnominal categories described above, some Bantu languages have a set of adnominals that do not take concords at all. Usually these are labelled 'invariable words'. Often these are grouped together with adjectives. For instance, in Kiswahili we find a series of adjectives originally derived from Arabic and which do not carry concords (Perrott 1957: 82).

*maji safi* — Kiswahili (Perrott 1957: 83)

| | | |
|---|---|---|
| ma | ji | safi |
| NP.6 | water | clean |

'clean water'

[68] Termed 'numeral concord' by White (1949: 17), who uses 'enumerative concord' for what is termed 'quantitative concord' here (idem: 27).



*nguo safi*

| | | |
|---|---|---|
| N | guo | safi |
| NP.10 | clothing | clean |

'clean clothes'

Compare with the following:

*nguo mpya*

| | | | |
|---|---|---|---|
| N | guo | N | pya |
| NP.10 | clothing | AC.10 | new |

'new clothes'

Invariable adnominals are also found in, for instance, Kinyamwezi (Maganga & Schadeberg 1992: 140f), Kamba (Whiteley & Muli 1962: 61f) and Icibemba (Richardson 1967: 386). Possibly all invariable adnominals are derived from loan words. Anyway, most Bantu languages lack invariable adnominals, or at least few grammars list such things. The just-named languages are all eastern Bantu languages so perhaps this is an areally restricted phenomenon.

The above survey is not an exhaustive description of concordially defined adnominal categories. This is definitely an area worthy of a book-length comparative study of its own. It would, in any case, seem uncertain whether all (or even most) Bantu languages could be claimed to have multiple sets of adnominals according to such criteria. Possibly some (or even all?) of the different concord series could be analysed as composite morphemes, as is clearly the case with the above-exemplified quantitative and possessive concords in Zezuru. However, even if we were to postulate a single "underlying" set of concords for all adnominal categories, something that many grammar book authors obviously try to do (see, for instance, Fivaz 1986: 58), we are still faced with the fact that Bantu languages formally categorize adnominals in ways that defy traditional linguistic categories such as adjectives, numerals, interrogatives, and so on. In fact, they seem in many languages to be mere formal inflectional classes rather than semantically defined subclasses of adnominals.[69] At any rate, there seems to be much comparative work to be done on the issue of adnominal categories in Bantu languages, and it would be interesting to see if any systematic picture would emerge from a more detailed large-scale survey. Unfortunately, the descriptive material available to me does not easily lend itself to such purposes. The information contained in many grammar descriptions is often insufficient or too sweeping for any thorough study.

[69] See also Carstairs-McCarthy's (1994: 740f) discussion about the meaning of inflectional affixes.

### 3.4.2 Concords and various pro-forms: a brief note

Concords also occur where there is no overt governing noun. The typical case is perhaps subject and/or object concords on verbs. These will be discussed in the next subsection. Here I will make a very brief mention of so-called nominal pro-forms, in particular nominalized adnominals and free pronouns. Starting with the former, compare the following two examples:

*umuntu omkhulu ufikile* — Isizulu (Doke 1963: 98)

| umu | ntu | om | khulu | u | fikile |
|---|---|---|---|---|---|
| NP.1 | person | AC.1 | big | SC.1 | has arrived |

'the big man has arrived'

*omkhulu ufikile*

| om | khulu | u | fikile |
|---|---|---|---|
| AC.1 | big | SC.1 | has arrived |

'the big (one) has arrived'

Note that the noun class affix on the adjective is retained in the second example, that is, the adjective concord used in the first example is not changed to a noun prefix, when the adjective is used as a noun. This is not necessarily so in all Bantu languages, for instance, Fivaz (1986: 72) says of Oshindonga that adjectives "may be used without the noun to which they refer, in which case the adjectives have a substantive function. They may then occur in all the syntactic environments in which nouns occur, *and be inflected in the same way as nouns*" (emphasis added). Possibly this is to be taken to mean that an adjective takes noun prefixes when used as a noun.

Concords are also carried on free pronouns. These are variously labelled 'absolute pronouns', 'personal pronouns', 'substitutives', or something else. Their use corresponds roughly to the use of personal pronouns in Indo-European languages, and I will not deal at all with those here. Instead I will now turn to verbal concords, that is, morphemes appearing on verbs marking grammatical subjects and objects.

### 3.4.3 Concords and verbs

Concords occurring on verbs are typically used for indicating the grammatical subject, and in some contexts also the grammatical object. This is true for most Bantu languages. In most constructions where object concords are used, they are prefixed to the verbal stem. Thus they appear closer to the verbal stem than the



subject concord or any TMA-markers. In some languages, there are object suffixes, or possibly clitics, attached to the verbal stem. (I return to these further below.) Some languages in the rainforest area do not use object concords at all, for instance, Duala, Kɛlɛ, Mpongwe (Meinhof 1948: 83), Mbɛnɛ (Dimmendaal 1988: 66) and Lingala (Guthrie & Carrington 1988: 39). Possibly this is true also for Ifumu (see Calloc'h 1911: 42). Kituba, a Bantu-based creaole language spoken in the western Bantu area, has no concords at all (Swift & Zola 1963).

There has been some discussion whether at all to regard the verbal concords as an agreement phenomenon, something that they usually are defined as.[70] Bresnan & Mchombo (1987; see also Mchombo 1997: 192ff) argue for treating them as the proper grammatical subjects and objects of a sentence, at least when it comes to the object concord.

*nungú zikuízúnza mikángo* — Chichewa (Mchombo 1997: 192)

| n | ungú | zi | ku | í | zúnza | mi | kángo |
|---|---|---|---|---|---|---|---|
| NP.10 | porcupine | SC.10 | PRES | OC.4 | torture | NP.4 | lion |

'the porcupines are torturing the lions'

In the above example, the object concord of class 4 is not an agreement marker "given" to the verb due to the presence of a grammatical object. Instead it should be regarded as the grammatical object per se. "The noun *mikángo* 'lions' ... turns out to be a discourse licensed topic element which the object marker, as a pronominal clitic, is in anaphoric agreement with" (Mchombo 1997: 193). As for the subject concord, it is said to be functionally ambiguous in that it sometimes functions as an agreement marker, sometimes as a pronominal subject. This has come under some discussion recently (see, for instance, Suzman 1995; Bentley 1997; Demuth & Mmusi 1997). I do not intend to review this here, nor is it important for the present study.

Both object and subject concords may occur without any explicit noun phrases. Generally speaking, there seem to be more rules governing the co-occurrence of object concords with explicit object noun phrases, than the co-occurrence of subject concords with explicit subject noun phrases. While the subject concords are obligatorily used, the object concords are not. In fact, when there is an explicit noun phrase acting as grammatical object, the object concord is most often not used. For instance, Van Sambeek (1955: 43) says of Icibemba that

[70] Says Mchombo (1997: 192): "Largely because the grammatical notions of Subject and Object are in such close correspondence with the thematic roles of agent and patient, and the work in philosophical grammars deriving from Aristot[e]lian logic virtually conflated them, it has been customary to identify subjects and objects with distinct noun phrases which denote the participants. As such, bound morphemes have traditionally been exempt from fulfilling the roles of subject and object."

"often the object prefix of the Third Person is omitted when the clarity of the sense does not require it". In most Bantu languages, the use of object concords seems correlated with some kind of discourse-related constraints (or possibly optionality), in terms of definiteness and/or emphasis. Compare the following Lwena examples:

*ajihile kasumbi* — Lwena (White 1949: 44)

| a | jih | ile | ka | sumbi |
|---|---|---|---|---|
| 3SG | kill | PERF | NP.12 | fowl |

'he killed a fowl'

*amujihile kasumbi* [71]

| a | mu | jih | ile | ka | sumbi |
|---|---|---|---|---|---|
| 3SG | OC.1 | kill | PERF | NP.12 | fowl |

'he killed the fowl'

In Tshivenda, "the OC would generally refer to some or other noun that was mentioned earlier in the conversation or discourse" (Poulos 1990: 227). Thus the grammatical object is not used unless it needs to be emphasized, specified or reintroduced into the conversation. Whitehead (1899: 62) says of Bobangi that "[w]hen the object of the verb can be represented by an objective pronominal prefix [= OC], it is not good style to use a noun or pronoun ... Whenever the pronominal is used as well as a noun or pronoun the object is emphasized."

In Siswati, the object concord conveys definiteness only when the grammatical object is placed immediately after the verb, which is its syntactically neutral position. If the grammatical object is either separated from the verb by an adverb or topicalized (and thereby removed from its neutral position immediately behind the verb) an object concord is obligatory. Consider the following examples:

*umfana ushaya inkhabi* — Siswati (Taljaard et al. 1991: 37f)

| um | fana | u | shaya | in | khabi |
|---|---|---|---|---|---|
| NP.1 | boy | SC.1 | hit | NP.9 | ox |

'the boy hits an ox'

*umfana uyishaya inkhabi*

| um | fana | u | yi | shaya | in | khabi |
|---|---|---|---|---|---|---|
| NP.1 | boy | SC.1 | OC.9 | hit | NP.9 | ox |

'the boy hits the ox'

71 In Lwena, as in many other Bantu languages, all animates take concords of classes 1 and 2 irrespective of their nominal class prefixes; thus the apparent discrepancy between the *ka-* of class 12 and *mu-* of class 1. I will return to this issue further below.



When the object is "displaced" from its normal position immediately behind the verb, an object concord is obligatory and does not convey definiteness (at least not. by necessity), as in the following example where the grammatical object is separated from the verb by a temporal adverb *nyalo* 'now'.

*umfana uyishaya nyalo inkhabi*

| um | fana | u | yi | shaya | nyalo | in | khabi |
|---|---|---|---|---|---|---|---|
| NP.1 | boy | SC.1 | OC.9 | hit | now | NP.9 | ox |

'the boy is hitting an/the ox now'

In Kiswahili, the use of object concords is primarily related to whether or not the object is a human being,[72] although definiteness also plays a role (Wald 1979). Object concords usually occur with human objects, especially if these are definite. The bond between the use of object concords and human objects is even overgeneralized into contexts where "the human is not an object at all, but merely resembles an object in its position with respect to the verb" (idem: 522).

*mguu ulimvimba mtoto* — Kiswahili (Wald 1979: 522)

| m | guu | u | li | m | vimba | m | mtoto |
|---|---|---|---|---|---|---|---|
| NP.3 | leg | SC.3 | PAST | OC.1 | swell | NP.1 | child |

'the child's leg swelled' (?≈ 'the leg swelled to the child')

The possessor *mtoto* has here been interpreted syntactically as a grammatical object, which Wald says it is not (idem). An alternative paraphrase of the above sentence could have been given as 'the leg swelled to the child'. This, however, is contradicted by the fact that had the possessor been inanimate, adding an object concord would have resulted in an ungrammatical sentence.

*mtoto alivimba mguu*

| m | toto | a | li | (ˣu) | vimba | m | guu |
|---|---|---|---|---|---|---|---|
| NP.1 | child | SC.1 | PAST | (ˣOC.3) | swell | NP.3 | leg |

'the child swelled in the leg'

Some (many?) Bantu languages allow only one object concord. However, a considerable number of Bantu languages allow the incorporation of more than one object concord, a phenomenon that is termed 'multiple object concords' here.

72 Wald (1979), from whom the Kiswahili data used here originate, contrasts the features 'human' with 'inanimate'. He mentions nothing about non-human animates.

Languages allowing multiple object concords are not geographically restricted to any particular region and can be found across the entire Bantu area. Wald (1979: 506) gives Umbundu, Kinyarwanda and Haya as languages allowing multiple object concords. To these can be added Oshindonga (Fivaz 1986: 108), Bobangi (Whitehead 1899: 61f), Setswana (Cole 1955/1975: 432) and South-western Fang (Guthrie 1969: 361). As for Kamba, Whiteley & Muli (1961: 84) claim that only the direct object can be incorporated as an object concord, but they add in a footnote that "Mrs. Farnsworth informs me that a double-object-infix does occur" (idem).[73] (Possibly there is a dialectal difference.)

As for the internal ordering of multiple object concords, most commonly a direct object concord appears further away from the verb stem than does any indirect object concord, as in the following examples (in which the indexing refers to noun classes):

*nākôīmôlôngôlā* — Bobangi (Whitehead 1899: 62)

| nā | kô | ī | mô | lôngôlā |
|---|---|---|---|---|
| 1SG | PRES | OC.7 | OC.1=3SG | take from |

'I take $it_7$ from $him_1$'

*otándi ké gú ya lónga* — Oshindonga (Fivaz 1986: 145)

| o | tá | ndi | ké | gú | ya | lónga |
|---|---|---|---|---|---|---|
| POS | TMA | 1SG | FUT | OC.3 | OC.2=3PL | teach |

'I will teach $them_2$ [the children] $it_3$ [arithmetics]'

Setswana allows the incorporation of more than two object concords:

*ketlalobamokwalêlêla* — Setswana (Cole 1955/1975: 432)

| ke | tla | lo | ba | mo | kwalêlêla |
|---|---|---|---|---|---|
| 1SG | FUT | OC.11 | OC.2=3PL | OC.1=3SG | write for |

'I shall write $it_{11}$ [the letter] to $them_2$ for $him_1$'

The indirect object concords *ba* (≈ dative) and *mo* (≈ benefactive) appear closer to the verbal stem than does the direct object concord *lo*. Thus "the more" indirect the object concord is, the closer to the verbal stem does it appear. However, there is at least one exception to this, namely, South-western Fang, as evident in the following example:

[73] The "me" probably refers to Whiteley.



*avágə́ˈbə́ˈdzə́ˈlə́rə́* — South-western Fang (Guthrie 1969: 361)

| a | vágə́ | bə́ | dzə́ | lə́rə́ |
|---|---|---|---|---|
| OC.1=3SG | REC.PAST | OC.2=3PL | OC.9 | show |

'$he_1$ showed $it_9$ [the path] to $them_2$'

The direct object concord *dzə́*, which refers to *nzən* 'path' of noun class 9, appears closer to the stem than does the indirect object concord *bə́*. How exceptional this is among the Bantu languages, I cannot say since data on the use of multiple object concords is scanty. Most grammar descriptions give only sentences with single object concords without mentioning restrictions or allowances as to the use of multiple object concords. Where there is analysable and/or discussed material with multiple object concords, they generally follow the expected order.

Lwena is a language that ordinarily allows only one object concord, but several objects can occasionally be indicated morphologically on the verb. In such cases, the indirect object is incorporated as an object concord (in its usual pre-verbal position), while the direct object is marked by way of a pronominal object suffix (or clitic?) consisting of a noun class affix + the vowel *o*.

*vanamutambulalwo* — Lwena (White 1949: 43)

| va | na | mu | tambula | lwo |
|---|---|---|---|---|
| SC.2=3PL | PERF | OC.1=3SG | take away | $it_{11}$ |

'$they_2$ have taken $it_{11}$ [the coin] away from $him_1$'

Similar constructions with suffixed object markers are found in other Bantu languages as well, for instance, in Kikongo (see Laman 1912: 117). In Icibemba (Van Sambeek 1955: 36), this type of construction is restricted to locatives only. In Luganda, too, the use of pronominal object suffixes is restricted to locative classes 16, 17, 18 and 23, while other classes employ object concords that are prefixed to the verb stem in the usual manner (Cole 1965: 121).[74]

Languages that allow only one object concord usually have rules governing which object is incorporated as a concord. Human objects are favoured in Sesotho, irrespective of whether they are direct or indirect objects; similarly in Kiswahili, as already exemplified above (see also Wald 1979: 507ff). Languages that allow multiple object concords seem often to have such rules also, since the actual use of multiple object concords is not always realized or favoured. In Kinyarwanda, for instance, non-direct objects seem to be favoured, as in the following example (in which *-cy-* refers to *ikíbáho* 'blackboard' of class 7):

[74] Tucker & Bryan (1957: 19) provide similar data also for Bwisi and Tooro, two languages close to Luganda.

*yacyandikiishijého imibáre íngwa* — Kinyarwanda (Kimenyi 1978: 108)

| y | a | cy | andik | iish | ijé | ho | imibáre | íngwa |
|---|---|---|---|---|---|---|---|---|
| 3SG | PAST | OC.7 | write | INSTR | PERF | LOC | math | chalk |

'he wrote math on $it_7$ [the blackboard] with chalk'

As already mentioned, there are a few northern Bantu languages that lack object concords altogether. Lingala is such a language. It employs in fact a much reduced concordial system, being based entirely on animacy and grammatical number. While there are thirteen noun prefixes, there are only four subject concords, the latter of which are used strictly according to grammatical number and animacy (see Guthrie & Carrington 1988: 39ff). Such simplified concordial systems are not common among Bantu languages, but they do exist. I return to this more fully in the next section.

### 3.4.4 Conjunction and concord: how to resolve conflicting data

When several conjoined nouns act as a joint grammatical subject, the choice of a subject concord on the verb is not necessarily a straightforward affair, especially when the subject nouns belong to different noun classes. Which noun class should then be represented as a subject concord on the verb? One way, of course, is to avoid the construction altogether. In fact, comitative constructions seem to be widely preferred instead of constructions involving conjoined nouns.

*batlhanka batsilê ledikôlôi* — Setswana (Cole 1955/1975: 430)

| ba | tlhanka | ba | tsilê | le | di | kôlôi |
|---|---|---|---|---|---|---|
| NP.2 | servant | SC.2 | have come | COM | NP.10(=8?) | wagon |

'the servants have come with the wagons'

Another seemingly common construction type involves a repetition of the verb with different subject concords, as in *batlhanka batsilê, ledikôlôi ditsilê* 'the servants have come, and the wagons have come' (Cole 1955/1975: 430). A third construction type, though apparently less common among the Bantu languages, is the 'impersonal construction' found in southern Bantu languages.

*gôtsilê batlhanka ledikôlôi*

| gô | tsilê | ba | tlhanka | le | di | kôlôi |
|---|---|---|---|---|---|---|
| SC.17 | have come | NP.2 | servant | CON/COM | NP.10(=8?) | wagon |

'there have come servants and/with wagons'



In this construction, the subject concord is that of locative class 17, and its use here resembles closely the use of the impersonal subject *it* in English. There is no doubt much to be said about the above type of constructions, but instead I focus on other means of solving conflicting noun class data. First, however, it must be emphasized that comparative data on this issue are very scanty. There are data for only a handful of languages. Unfortunately, grammar books seldom treat this issue and when they do, they usually give only fragmentary data. One reason for the lack of treatment could be that alternative constructions, like the comitative construction, are more frequent. Be that as it may, since I need a cover-term for the strategies involved, I label them simply 'class-resolving strategies', and for convenience I sort them in three categories: syntactic, semantic and indefinite resolution (see also Corbett 1991: 261ff; and Givón 1970). The first two types are common to most Bantu languages, while the third type seems to have a more restricted distribution. I discuss these in turn. (See also figures 39 and 40.)

Syntactic resolution (termed 'adjacency principle' by Bokamba 1985: 42) entails choosing a subject concord of a class corresponding to one of the conjoined nouns; that is, one simply "copies" a noun class of one of the conjoined subject nouns. In Kiswahili, for instance, the subject concord is determined by the last-mentioned subject (or, the one nearest to the verb). The resulting subject concord may end up being singular.

*kiti na mguu wa meza umevunjika* — Kiswahili (Bokamba 1985: 45)

| ki | ti | na | m | guu | wa | (N) | meza | u | me | vunjika |
|---|---|---|---|---|---|---|---|---|---|---|
| NP.7 | chair | and | NP.3 | leg | PC.3 | (NP.9) | table | SC.3 | PERF | break |

'the chair and the leg of the table are broken'

*mguu wa meza na kiti umevunjika*

| m | guu | wa | (N) | meza | na | ki | ti | u | me | vunjika |
|---|---|---|---|---|---|---|---|---|---|---|
| NP.3 | leg | PC.3 | (NP.9) | table | and | NP.7 | chair | SC.7 | PERF | break |

'the leg of the table and the chair are broken'

In Oshindonga, it is the first noun that is important, but only if it is plural.

*ómaúsiku nomiténya otágé ya* — Oshindonga (Fivaz 1986: 144)

| óma | úsiku | na | omi | ténya | otá | gé | ya |
|---|---|---|---|---|---|---|---|
| NP.6 | night | and | NP.4 | day | TMA | SC.6 | come |

'the nights and the days are coming'

| LANGUAGES | INDEFINITE RESOLUTION | SEMANTIC RESOLUTION *humans* | *animals* | *things* | SYNTACTIC RESOLUTION |
|---|---|---|---|---|---|
| Mbɛnɛ (A43) | ? | 2 | 2 | 8 | ? |
| Ifumu (B77) | ? | 2 | 2 | 8 | Last noun |
| Bobangi (C32) | ? | 2 | 8 | 6 | Last noun & number res. |
| Luganda (E15) | 8? | 2 | 8 | 8 | ? |
| Kiswahili (G42) | ? | 2 | 2? | 8, 10 | Last noun (no number res.) |
| Lwena (K14) | 17 | 2 | ? | 8 | ? |
| Icibemba (M42) | 8? | 2 | 8 | 8 | ? |
| Oshindonga (R22) | ? | 2 | 8 | 8 | First noun & number res. |
| Zezuru (S12) | 8 | 2 | 8 | 8 | ? |
| Tshivenda (S21) | 8 | 2 | 8 | 8 | (not used) |
| Setswana (S31) | 17 | 2 | 10(=8?) | 10(=8?) | (not used) |
| Isizulu (S42) | 15=17 | 2 | 10(=8?) | ? | Last noun |
| Siswati (S43) | 17 | 2 | 10 | ? | Most important noun |

Figure 39 Class-resolving strategies in a few Bantu languages
Sources as listed in supplementary section A plus Givón (1970; 1971).

*ómitenyá nómausíku odhí vúlathane*

| ómi | tenyá | na | óma | usíku | o | dhí | vúlathane |
|---|---|---|---|---|---|---|---|
| NP.4 | day | and | NP.6 | night | TMA | SC.4 | not be equal |

'the days and the nights are not equal'

In case the first-mentioned noun is not a plural one, number resolution takes place; that is, the noun class of the singular noun is reanalysed into its corresponding plural class, as in the below example, where the chosen subject concord refers to the plural form of the singular *ombete*, which is *oombete* of class 10.

*ombete embó noshitáafula odhi lí megumbo*

| oN | bete | e | mbó | oshi | táafula | o | dhi | lí megumbo |
|---|---|---|---|---|---|---|---|---|
| NP.9 | bed | NP.5 | book | and | NP.7 | table | TMA | SC.10 | be in the house |

9/10

'the bed, the book and the table are in the house'



Semantic resolution involves choosing a subject concord according to criteria determined by the lexical semantics of one or all of the subject nouns. In particular, it is the features 'human', 'animate' and/or 'inanimate' that are relevant here. In Bobangi, for instance, if any of the subject nouns refer to a human being, the subject concord of noun class 2 is favoured. When there are no humans and one of the nouns refers to an animal, noun class 8 is favoured. When all nouns refer to things, noun class 6 is favoured (Whitehead 1899: 59).

*bātô nā bīlokō nā māmbi baösila* — Bobangi (Whitehead 1899: 59f)

| bā | tô | nā | bī | lokō | nā | mā | mbi | ba | ösila |
|---|---|---|---|---|---|---|---|---|---|
| NP.2 | human | and | NP.8 | thing | and | NP.6 | palaver | SC.2 | are come to an end |

'human'

'people and things and palavers are come to an end'

*bīlokō nā mīlēkē bīöwa*

| bī | lokō | nā | mī | lēkē | bī | öwa |
|---|---|---|---|---|---|---|
| NP.8 | thing | and | NP.4 | bird | SC.8 | are dead |

'animal'

'things and birds are dead'

Note here that the above sentences could also have been accounted for by a syntactic resolution rule stating to use the noun class of the first-mentioned noun. Such a rule, however, would not account for the following example:

*bīlokō nā bôlīngo maöbūla*

| bī | lokō | nā | bô | līngo | ma | öbūla |
|---|---|---|---|---|---|---|
| NP.8 | thing | and | NP.14 | love | SC.6 | are increased |

'things'

'things and love are increased'

Bobangi does have a syntactic rule, however, in addition to the above-described semantic rule, but one which chooses the last-mentioned noun. A "very common diversion from these [semantic resolution] rules is the custom of allowing the last named noun to attract the pronominal prefix for the verb" (Whitehead 1899: 59). According to this, then, the three just-used examples would read as follows instead:

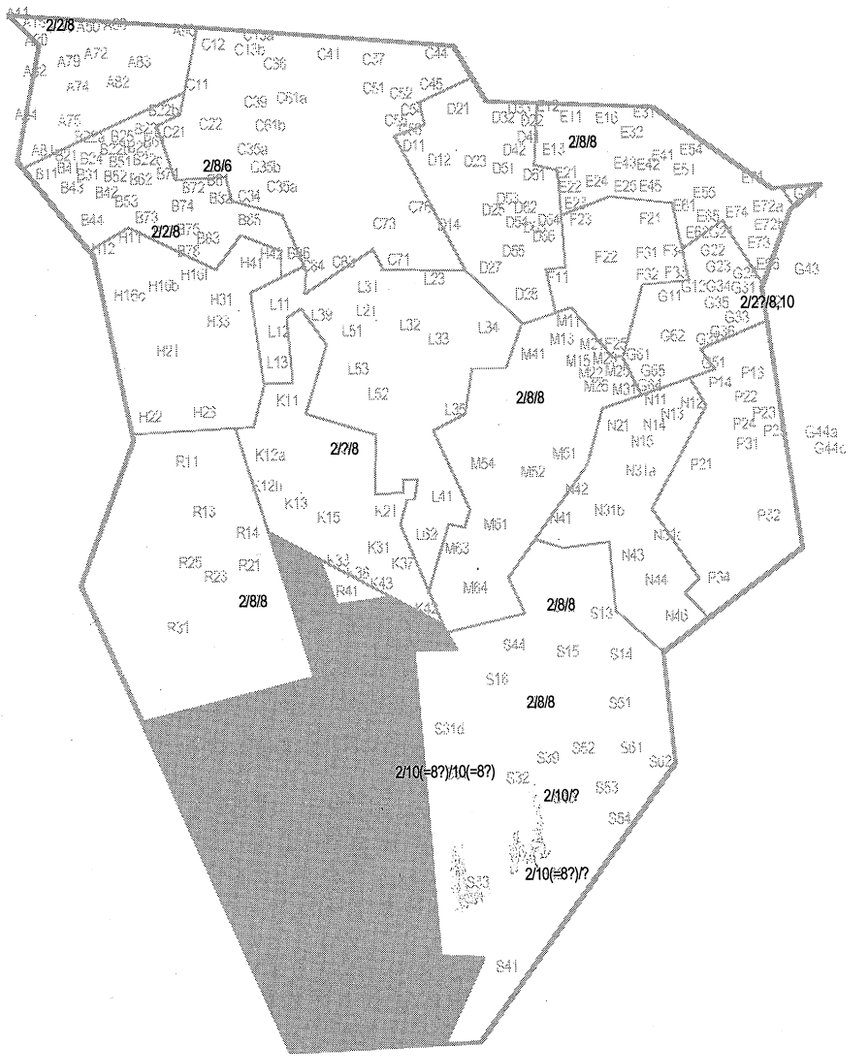



Figure 40 Attested distribution of classes involved in semantic resolution
The first number refers to noun class chosen with humans, the second with animals, the third with inanimates. See text for further explanations.



*bātô nā bīlokō nā māmbi maösila* — Bobangi (Whitehead 1899: 59f)

| bā | tô | nā | bī | lokō | nā | mā | mbi | ma | ösila |
|---|---|---|---|---|---|---|---|---|---|
| NP.2 | human | and | NP.8 | thing | and | NP.6 | palaver | SC.6 | are come to an end |

'people and things and palavers are come to an end'

*bīlokō nā mīlēkē miöwa*

| bī | lokō | nā | mī | lēkē | mi | öwa |
|---|---|---|---|---|---|---|
| NP.8 | thing | and | NP.4 | bird | SC.4 | are dead |

'things and birds are dead'

*bīlokō nā bôlīngo bööbūla*

| bī | lokō | nā | bô | līngo | bö | öbūla |
|---|---|---|---|---|---|---|
| NP.8 | thing | and | NP.14 | love | SC.14 | are increased |

'things and love are increased'

In Oshindonga, "[c]onsiderable hesitation has been shown by speakers as to the correct concord to use, and sometimes a postponing of the second and subsequent noun is preferred, thus avoiding the problem" (Fivaz 1986: 143). If a class-resolving strategy is imposed, however, class 2 concords are used whenever there is at least one noun referring to humans. If there are no human nouns but at least one referring to animals, class 8 concords are used. If all nouns refer to things, then too class 8 is used. Fivaz (1986: 144) explains that these semantic resolutions involve what he calls 'relevant generic plural nouns'. Thus in the example below, the subject concord of class 8 is used because the conjoined nouns are thought of as being embraced by the generic *iinima* 'things' of class 8.

*embó oshitáafúla nombéte oyi lí megumbo* — Oshindonga (idem: 144)

| e | mbó | oshi | táafúla | na | oN | béte | o | yi | lí megumbo |
|---|---|---|---|---|---|---|---|---|---|
| NP.5 | book | NP.7 | table | and | NP.9 | bed | TMA | SC.8 | be in the house |

*iinima* 'things'

'the book, the table and the bed are in the house'

In Tshivenda, a syntactic resolution is not used to resolve conflicting noun class data (see Ziervogel et al. 1981: 116f; Poulos 1990: 219ff; see also further below). If two subject nouns belong to the same plural class, that plural class is used also

for the subject concord, and when the classes in question are singular, number resolution can be used.

? *munwe na mulenzhe iafara* — Tshivenda (Murphy 1997: 231)

| mu | nwe | na | mu | lenzhe | i | a | fara |
|---|---|---|---|---|---|---|---|
| NP.3 | finger | and | NP.3 | foot, leg | SC.4 | TMA | hold |

3/4

'the finger and the foot hold (things)'

The use of number resolution in the above sentence is not regularly accepted, however. Sentences like the above were accepted by Murphy's (1997: 231) informants about half the time, "usually changing their minds several times about a sentence before arriving at a judgment and often judging the same sentence to be both acceptable and unacceptable at different times." Possibly we are here witnessing a change in progress, that is, one which eventually may lead to the introduction of a syntactic resolution rule. In order for this to happen, the irregular number resolution needs to be stabilized and extended to constructions involving conjoined nouns of different noun classes. (That this will in fact happen is mere speculation, though.)

In Siswati, the subject concord is that of class 2 when human nouns are involved, but only "when they have equal status in the speaker's mind" (Taljaard et al. 1991: 31). If not, the subject concord is usually "derived from the noun which is considered to be the more important noun of the group" (idem); and since there is no number resolution in Siswati, this may result in a singular subject concord.

*indvodza nebafana iyazingela* — Siswati (Taljaard et al. 1991: 31)

| iN | dvodza | na | ba | fana | i | ya | zingela |
|---|---|---|---|---|---|---|---|
| NP.9 | man | and | NP.2 | boy | SC.9 | PRES | hunt |

most important

'the man and the boys are hunting'

Indefinite resolution is found in a handful of Bantu languages (judging by how seldom it is described in the literature). It is a resolution strategy in which some kind of neutral, indefinite or impersonal subject concord is chosen. Thus the noun class belonging and/or the lexical semantics of the conjoined subject nouns plays no role at all. In Isizulu (Doke 1963a: 296f) and Siswati (Taljaard et al. 1991: 31), for instance, the subject concord of merged class 15=17 can be used as an



indefinite subject concord.

*timbuti, lihhashi nematfole kuyabaleka* — Siswati (Taljaard et al. 1991: 31)

| tiN | buti | li | hhashi | ne | ma | tfole | ku | yabaleka |
|---|---|---|---|---|---|---|---|---|
| NP.10(=8?) | goat | NP.5 | horse | and | NP.6 | calf | SC.15=17 | run away |

indefinite

'the goats, the horse and the calves run away'

An indefinite resolution does not always involve the locative class 17. In Tshivenda (see Ziervogel et al. 1981: 117), the subject concord of class 8 occurs in semantic resolution involving nouns denoting non-humans, while that of class 2 is used with nouns denoting humans. In addition to this, the subject concord of class 8 can in fact be used with any conjoined nouns of any classes. Most probably this latter use is the result of a functional extension of the former use.

What has been glossed as 'and' (usually *ne* or *na*) in the above example-sentences is translatable into English as either 'and' or 'with', that is, as a conjunction or a comitative marker respectively; in fact, a proper translation for many contexts is a joint 'and/with'. It is only when we restrict (or at least include) the reading to 'and' that we can successfully talk of a conjoined construction. A comitative reading alone is theoretically possible. In structural terms, this would be equal to a language employing a syntactic rule in which the subject concord is made to agree with the first-named noun without number resolution. However, I have found no such language (though see Roberts & Wolontis 1974: 240f). This may, of course, be a consequence of the poor data available on class-resolving strategies. In any case, a specifically comitative reading is often accompanied by a word order restructuring in which the non-first subject noun(s) is(are) placed after the verb, and thereby we get readings like 'the man came home with the children', which then is a non-conjoined construction. However, also these constructions may in some languages involve something that looks like a resolution strategy. Consider the following example from Icibemba.

*nimone nkalamo filelwa ne mboo* — Icibemba (Van Sambeek 1955: 45)

| ni | mone | N | kalamo | fi | lelwa | ne | N | boo |
|---|---|---|---|---|---|---|---|---|
| 1SG | saw | NP.9 | lion | SC.8 | fight | with | NP.9 | buffalo |

'I saw a lion fighting with a buffalo'

A strictly comitative reading of *ne* would predict the subject concord to be that of class 9, the same as for *nkalamo*, but it is not. In this particular case, the choice of a

plural (indefinite?) subject concord seems to have been triggered by the lexical semantics of the verb, which here signifies an action jointly performed by the lion and the buffalo.

I have restricted the above discussion to subjects only, but in most languages for which there are some data, the same rules seem also to apply to conjoined grammatical objects, even though such constructions seem to be more prone to comitative readings. I have, at any rate, excluded them from consideration above, since there is not always explicit mention of conjoined objects in the grammar books that I have consulted. Be that as it may, much more could be made of resolution strategies, but this has to be left for future studies. The above suffices for present purposes.[75] In summary, then, both semantic and syntactic resolutions are common for the entire Bantu area (see Givón 1970; Bokamba 1985: 43; and Corbett 1991: 275f), with semantic resolution being the most oft-occurring, or at least the most oft-described by grammarians. Again, however, it must be admitted that available data is rather scanty. Nevertheless, the common features of semantic resolution seem to be to use class 2 when human (sometimes animate) nouns are involved, and class 8 when animal, animate and/or thing nouns are involved. Some languages employ further classes strictly for things, like Bobangi where class 6 is used when all nouns denote things. In Kiswahili, class 8 is used with concrete things, while class 10 is used with abstracts (Perrott 1957: 127). Indefinite resolution seems more uncommon; or in any case it is more seldom described by grammarians.

### 3.4.5 General animate concords (GAC)

An interesting phenomenon in some Bantu languages concerns the use of concords of classes 1 (singular) and 2 (plural) for all animates, irrespective of their inherent noun class belonging. Consider the following examples:

*maneno mabaya* — Kiswahili (Perrott 1957: 18+27)

| ma | neno | ma | baya |
|---|---|---|---|
| NP.6 | word | AC.6 | bad |

'bad words'

*mafundi wabaya*

| ma | fundi | wa | baya |
|---|---|---|---|
| NP.6 | craftman | AC.2 | bad |

'bad craftsmen'

75 Corbett (1991: 261ff) offers an enlightening chapter on gender resolution rules in a multitude of the world's languages.



For lack of a better label, I dub this phenomenon 'general animate concords', abbreviated 'GAC' when need be. General animate concords occur in a number of languages. The full attested distribution is mapped in figure 41, which needs some comments before it can be appreciated in full. Note initially that there are languages in the northernmost Bantu area which have noun class systems solely based on the features 'animacy' and 'number'. These are indicated with a cross "X" in figure 41. They will be ignored here since they are discussed separately in the next section.

With regard to Siswati, Ziervogel & Mabuza (1976: 209) say that "[i]n the spoken language one often finds that class 1 and class 2 provide concords for persons of other classes". The examples given all concern the use of subject concords. However, the Siswati grammar by Taljaard et al. (1991) makes no mention of this, which is bothersome. In fact, it is even more disturbing the more one thinks about it. The standard descriptions of southern Bantu languages do not mention GAC at all, and all examples follow non-GAC patterns (thus the many em-rules in zone S in figure 41). What if the reason for this is that grammarians have omitted data about GAC from their grammars? Perhaps GAC has been considered too colloquial or "irregular" for mention? (Recall the factor of standardization from chapter 1.) This is certainly not inconceivable, as the Siswati data indicate. Thus what we should bear in mind is that the distribution of GAC shown in figure 41 is most probably an underestimation, perhaps even a severe one.

The most detailed data regarding GAC come from Wald's (1975) study of this particular phenomenon among upper east coast languages. Additional data derive from language-specific sources, most of which mention this phenomenon only briefly. What seems to be clear, though, is that only a few languages employ GAC obligatorily without restrictions, that is, with all animates in all concord-requiring contexts. Bondei is one such language (Wald 1975: 302). In Lwena, "[i]n general, all animate nouns use the concords of class one [pairing 1/2], and not the concords derived from their own prefixes" (White 1949: 8). As far as I have been able to deduce, all constructions involving animates in White's grammar employ GAC, but the use of the phrase "in general" might indicate that exceptions/restrictions do exist. In fact, most attested languages with GAC use it with some sort of constraint(s). In Bobangi, for instance, general animate concords are used "[w]hen the subject of the verb is a person or an animal, or a thing regarded as having volitional power" (Whitehead 1889: 40), while with grammatical objects they occur only with human nouns (idem: 49). In Kimatuumbi, general animate concords occur with all nouns denoting humans, but class 9=10 nouns denoting

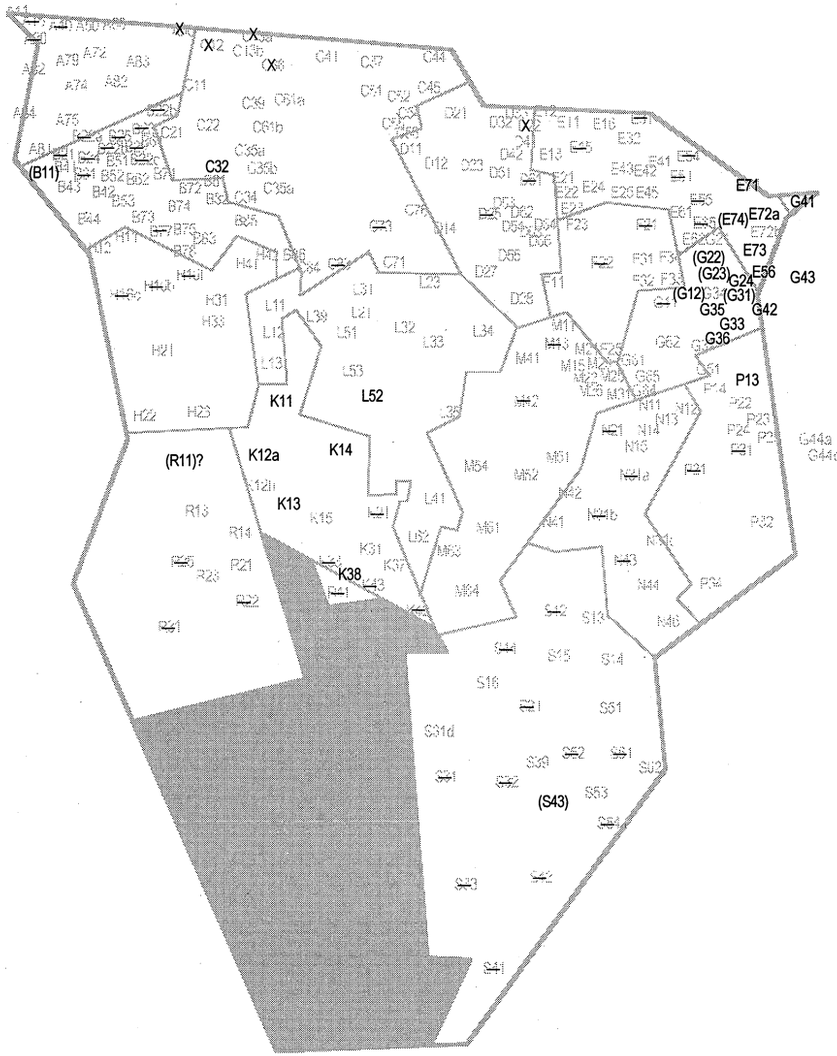



Figure 41 Attested distribution of the use of general animate concords (GAC)
"—" = no GAC; parentheses indicate marginal use; the X-marking indicates languages with full animacy-based concordial systems. See text for explanations.



animals take class 1 concords when singular and class 9=10 concords when plural (Odden 1996: 31). In Myɛnɛ, GAC is employed only with free pronouns and subject concords (Jacquot 1983: 49). As for Umbundu, my main source (Schadeberg 1990) mentions no GAC at all, nor is there any trace of GAC in any of the examples he uses. However, Herbert (1985: 186) refers to a source I have not seen (Valente 1964) and says that GAC is employed with a subset of nouns, usually those of pairing 5/6.

In GAC-using languages along the upper east coast, Wald (1975: 302) recognizes five types of GAC-using languages based on the "degree of integration of [G]AC into the grammars" (idem), even though the types are not entirely based on syntax:

1) total integration, that is, GAC is obligatorily used with all animates in all constructions requiring concords, which is the case in Bondei;
2) obligatory use of GAC everywhere except possessive constructions, a situation we find in urban Kiswahili;
3) obligatoriness outside the noun phrase, as in Kami;
4) acceptance of GAC as well as non-GAC but with a preference for the former, as in Chonyi;
5) general rejection of GAC but tolerated before and inside the noun phrase, as in Shambaa and Zigula.

As Wald's (1975) study clearly reveals, the constraints co-occurring with GAC seem to follow a pattern.[76] Says Wald (1975: 302): "[G]AC appears most easily and becomes established most firmly outside of the [noun phrase] of the controlling [noun]. The controlling [noun phrase], then, is more resistant to the encroachment of [G]AC than pronominal concord at a distance." The fact that Kiswahili employs GAC everywhere except in possessive constructions is interesting in this respect. The additional data that I have gathered does not contradict this but, as already mentioned above, the details available in grammars are generally too sketchy for full(er) analyses.

There is one other thing that need to be mentioned before I close this section. In many non-GAC languages, nouns denoting animals are categorised in noun class 1 or 1a. Thus they take class 1 concord by virtue of their primary noun class belonging, and not due to the phenomenon of GAC. In Nyungwe, for instance, we

[76] Corbett (1991: 248ff) relates this to what he calls the 'agreement hierarchy', which looks as follows: attributive < predicative < relative pronoun < personal pronoun (idem: 226). Among other things, this agreement hierarchy also has diachronic implications in that when agreement patterns change, it is the rightmost part of the agreement hierarchy that is affected first.

find the following class 1a nouns: *nyakarize* 'scorpion', *nyakhoko* 'crocodile', *nyakungu* 'adder' (Van Ginneken 1914: 799). In Chinyanja there are *nyani* 'baboon' and *mpaka* 'cat' (Price 1946: 33). Calloc'h (1911: 13) exemplifies at least one animal in class 1a, *nuni* 'fowl', in the sketchy grammatical introduction to his Ifumu dictionary. Similarly, Jacquot (1983: 199ff) gives a handful of class 1a animals in some north-western Bantu languages. Class 1a animals are also found in Icibemba (see Van Sambeek 1955: 8), Tumbuka (Vail 1971), Chichewa (see Hullquist 1988: 112f), Setswana (Cole 1955/1975: 72ff), Isixhosa (Doke 1963a: 40ff), Siyeyi (Gowlett 1992; Sommer 1995: 403ff), and so on.

Most of the GAC-using languages, on the other hand, seem to lack class 1~1a nouns denoting animals, at least there is generally no mention of animals in classes 1~1a (see White 1944: 154; 1949: 8; Möhlig 1967: 117; Whitehead 1899: 9f; Odden 1996: 28). There are at least two exceptions, though. In Kiswahili, *mnyama* 'animal' and *mdudu* 'insect' are found in class 1 (Perrott 1957: 13). In Siswati, where GAC seems to be irregular, there are also class 1a animals (see Taljaard et al. 1991: 12). If we disregard Kiswahili and Siswati for the moment, this could hint at a very interesting potential correlation, namely, that languages with GAC are in what might look like a complementary distribution with languages with class 1a animals. This, however, needs to be verified towards a larger corpus of data before anything conclusive can be said.

Still, if it turns out to be true, it could be interpreted in at least two opposite ways. The first interpretation would be that the class 1a nouns represent a kind of preamble in the development towards the introduction of GAC. However, since there are no (or at least very few) animals in classes 1~1a in GAC-using languages, one must then postulate a re-classification of these nouns into other classes after GAC has come into effect.[77] The second interpretation would be to see the class 1~1a animals as vestiges of a no longer active GAC, that is, when GAC came out of function, some nouns denoting animals became permanently associated with the concords of classes 1(a) and 2. This is clearly the more controversial interpretation, but judging from the possible complementary distribution alone we cannot exclude this possibility. However, other data points towards the first interpretation (see Wald 1975: 282ff). Or perhaps GAC is something that comes and goes?

A third interpretation would be that the complementary distribution does not exist. Only more empirical data, or a more thorough survey of the literature than I have been able to do, can clarify this issue. Be that as it may, there is much more to be said about the feature 'animacy' and its employment in Bantu noun class systems. This forms a major part of the next section.

77 Unless one assumes other means of introducing GAC which do not involve class 1~1a animals at all.



## 3.5 Bantu noun class systems

In this final section, I will first present a typology of Bantu noun class systems based on some of the features discussed earlier. This is an elaboration of the simple two-way dichotomy presented at the beginning of this chapter, that is, the one between traditional and reduced noun class systems. Secondly, I will discuss Bantu noun classes in relation to the more general concept of grammatical gender.

### 3.5.1 A (tentative) typology of Bantu noun class systems

Bantu noun class systems can no doubt be typologized in many ways. There are several interesting features which could be used for this purpose. Strangely, there are few explicitly formulated typologies available in the literature, at least for Bantu languages.[78] The typologies that do exist are basically diachronic models making claims of paths and/or directions of change, especially in how the feature 'animacy' affects Bantu noun class systems, like Wald's (1975) study discussed in the previous section. Alexandre (1967), in a study of three lingua francas of the northern Bantu area ("Up-Country Swahili" in the north-east, Lingala in the central north and Pidgin A70 in the north-west), sees a general tendency towards reduction in the noun class systems. The concordial systems "are reduced in number and in their range of application. Grammatical agreement tends to be replaced by a notional agreement based on the opposition animate:inanimate" (idem: 277); see also Givón (1971) and Herbert (1985), both of whom discuss the evolutionary aspects in some detail.

Okhotina's (1975) tripartite typology represents a slightly different approach in that it is related not to diachronic factors but to social ones. The typology as such is only sketchily explained (the article available to me being only a two-page conference abstract), but its main outline seems fairly clear nonetheless. A noun class system representing the 'most conservative' stage is that of Gogo in which "the semantic criterion of class identification is very operative; each loan word is included into [a] certain class according to its semantics and takes the prefix of that class, the formal patterns of class agreement being also steady and fast" (idem: 91).[79] The next 'more advanced' stage is found in Isizulu. Although "a semantic principle is still operative in the noun classification, a definite subset of classes is chosen to assimilate the loans irrespective of their semantics" (idem: 92). The 'highest degree of evolution' is found in Kiswahili and Lingala. In Kiswahili, "a

78 See, though, the many contributions in Bendor-Samuel (1989) discussing Niger-Congo languages, especially Williamson (1989a: 36) and Faraclas (1989: 390). See also Heine (1982) for a pan-African approach.

79 I have not been able to find a reliable description of the Gogo noun class system. Thus I cannot verify her description of it.

new system of noun classification is developing based on the feature 'animate-inanimate' " (idem; recall the discussion about GAC above). In Lingala, this development has gone even further (which is discussed more below). Okhotina ties the entire outlined development to social factors. Thus the 'most conservative' system is found in languages "which function only as a narrow intra-ethnic means of communication" (idem: 91), while the other two types of systems are found in languages with wider social uses, the 'highest degree of evolution' being found in typical lingua francas (judging by her examples). That social factors play a decisive role in language change is certainly true, but I am not so sure that Okhotina's tripartite typology is sufficient to capture this accurately.

Below I will elaborate on some of the just-mentioned studies, especially Wald (1975) and Herbert (1985), but also Alexandre (1967) and Corbett (1991: 248ff). It must be admitted already here, however, that data on individual languages are very patchy for some of the issues discussed below. Thus I will keep things fairly general. I give priority to formal properties and base the discussion below on a simple two-way dichotomy between noun prefixes and concords. The main motive is to see how noun class belonging, grammatical number and/or animacy is or is not relevant for the distinction of noun classification, and whether or not this is visible in noun prefixes or concords. Noun class systems are then categorized into types depending on what the analysis gives. These types are given a two-character code below, like '1A', '1B', '2B', and so on, in which the numeral refers to type of noun prefix system (discussed further below; see figure 45) and the upper-case letter to type of concordial system (see figure 42).

| TYPE A | TYPE B | TYPE C | TYPE D | TYPE E |
|---|---|---|---|---|
| Traditional strictly formal | Traditional with GAC | Animacy-based SG/PL-marking | SG/PL-marking only | No concords at all |

Figure 42 Five types of Bantu concordial systems broadly characterized
See text for explanations and examples.

The full typology is presented in a matrix in figure 43. I will go through those noun class systems first which belong to type 1, that is, those in column 1 in figure 43. These are characterized by a system of noun prefixes which may be called 'traditional'. The use of concords may or may not be formally synchronized with the use of noun prefixes; for instance, languages that employ general animate concords (GAC) have a noun prefix system that is slightly non-synchronized with the system of concords. There are different degrees of synchronization in different



languages, as we shall see shortly. Further details are best explained by way of a survey of the different types and subtypes.

Languages of type 1A[80] exhibit strictly formal noun class systems. These are the ones that Mufwene (1994: 67 et passim) fondly labels 'canonical'. In these languages, all concords are chosen according to the noun class belonging of the noun without regard to lexical semantics (unless that underlies the noun class system itself). There is full synchrony between the noun prefix and the concords in all contexts; that is, they always mark the same noun class. Singular/plural distinctions are derivatives of the noun class system, and not marked with any special morpheme. Nor are animates treated with separate rules. Isizulu, Setswana, Kesukuma, Duala, in fact most Bantu languages, are good examples of languages belonging to this category. It is noun class systems of type 1A that Okhotina (1975) subdivides into 'most conservative' and 'more advanced' depending on the degree of semantic regularity operating in the noun class system. This is perhaps not a bad idea. I have, in any case, not sufficient data (nor space or time to find them) to make any further subdivisions here.

Type 1B languages are very similar to type 1A languages. Here too is a traditional noun prefix system, but there is a slight non-synchronism with regard to the use of concords. More specifically, animate nouns are treated differently from other nouns. While the choice of concords for inanimate nouns follows a strict formal rule, that is, the noun class of the noun prefix is the same as that of the concords in any given context,[81] animate nouns take a special set of general animate concords (GAC), or more specifically, those of classes 1 and 2. Thus languages of type 1B have a mixed traditional/animacy-based concordial system. The distinction between types 1A and 1B is gradual rather than clear-cut and fixed, since animacy is unevenly integrated into the grammars of different languages (Wald 1975; see previous section). Thus Bondei, in which the use of GAC is obligatory in all relevant contexts, would be more prototypical of type 1B than would, say, Chonyi, in which GAC is accepted but not preferred, or even Kiswahili, where GAC occurs everywhere except in possessive constructions (idem: 302).

Type 1C languages are such that have retained a traditional noun prefix system but restructured the concordial system considerably. There is in fact almost minimal synchrony between the use of noun prefixes and the use of concords. The latter are chosen strictly according to animacy and grammatical number. Such a

[80] Phrases that refer to the different types occur sometimes as attributes to 'language' (as in 'languages of type 1A', 'type 1A languages', and so on) and sometimes to 'noun class system' (as in 'type 1A systems', 'noun class systems of type 1A', and so on). This is not meant to mark any major distinction in meaning. Since any given language presumably has only one noun class system, a language with a noun class system of type 1A is thereby a type 1A language. Whichever is referred to in any given context is partly a stylistic choice.

[81] I disregard here constructions in which resolution rules apply; see the previous section.

| CONCORDS | NOUN PREFIXES<br>*1. Traditional* | *2. Traditional + Animacy* |
|---|---|---|
| *A.Traditional* | Duala (A24)<br>Isizulu (S42)<br>*and many more* | |
| *B. Traditional + Animacy* | Kiswahili (G42)<br>Ciokwe (K11)<br>Bondei (G24) | Lunda (L52) |
| *C. Animacy + SG/PL* | Lingala (C36) | |
| *D. SG/PL* | ? Yans (B85) | |
| *E. None* | Kituba (H00) | |

Figure 43 A simplified feature-typology of Bantu noun class systems
The type-feature labelled 'traditional' includes a singular/plural marking. See text for further explanations, especially on the issue of diachrony.

noun class system can be found in Lingala (see figure 44). Lingala nouns are marked for noun class belonging in accordance with a traditional noun class system, which means that we find noun class marking prefixes on nouns, as in *mobáli* 'male' of class 1 with plural *babáli* of class 2, *lilála* 'orange' of class 5 with plural *malála* of class 6, *esíka* 'place' of class 7 with plural *bisíka* of class 8, and so on (Guthrie & Carrington 1988: 12). The concordial system follows different lines. The adjective concords distinguish between singular (*mo-*) and plural (*mi-*), though only with a small set of adjectives (idem: 20). The majority of adjectives are invariable. The subject concords consist of one singular/plural set for animates, and another singular/plural set for inanimates (idem: 41). For instance, the subject concord *e-* in *ekómí* 'it arrived' can refer to any inanimate noun, be it *ɛkɔlɔ* 'basket' of class 7, *bimɛlí* 'drink' of class 8 or *lobási* 'arrow' of class 11.

Type 1D languages have restructured their concordial systems even more, marking only grammatical number. These languages seem to be very unusual. In



| *2'. Traditional + PL* | *3. Animacy + SG/PL* | *4. SG/PL* | *5. None* |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| K. Lingala (C36) | Kakɔ (A93)<br>Amba (D22) | Pande (C12)<br>Mbati (C13a) | |
| | | | |
| | | | |
| | | | |

fact, I have not been able to verify with absolute certainty a single case, although Yans seems like a possible candidate. In the Kibwaal dialect of this language, there seems to be a traditional-type of noun prefix system, provided I have interpreted Mufwene's (1994: 77) examples correctly.[82] No concords occur in adnominal constructions, nor are there any subject concords, but there is a set of object concords. These "are distinguished only in terms of first person singular vs non-first person singular vs plural" (idem: 71). There seems to be no animacy involved, only grammatical number and person: *-n-* marks singular first person objects, *-o-* marks singular second and third person objects, and *-ɛ-* marks all plural objects (idem: 70f). For third person objects, only grammatical number is distinguished, and so we have here what looks like a noun class system consisting of a traditional-type noun prefix system and a singular/plural-marking concordial system, that is, type 1D.

[82] See also Guthrie's (1971: 38) data regarding East Yans, for which see also supplementary section A.

| NOUN CLASS | NOUN PREFIX | | | ADJECTIVE CONCORDS | SUBJECT CONCORDS |
|---|---|---|---|---|---|
| 1=3 | *mo-* | | | | |
| 2 | *ba-* | | | | |
| 4 | *mi-* | | | | |
| 5 | *li-* | ANIMATES | sg: | *(mo)-* | *a-* |
| 6 | *ma-* | | pl: | *(mi)-* | *ba-* |
| 7 | *e-* | INANIMATES | sg: | *(mo)-* | *e-* |
| 8 | *bi-* | | pl: | *(mi)-* | *i-* |
| 9=10 | *(N)-* | | | | |
| 11 | *lo-* | | | | |
| 14 | *bo-* | | | | |
| 15 | *ko-* | | | | |

Figure 44 The noun class system in Lingala (from Guthrie & Carrington 1988: 25+41)

Languages of type 1E are similarly unusual, but here I have attested at least one clear example, namely, Kituba, which is a Bantu-based creole language spoken in the western Bantu area. In Kituba, there is a traditional type of noun prefix system but no concords at all, not a single one, at least as described by Swift & Zola (1963). There are no subject or object markers on verbs; neither are there concords in adnominal constructions, and yet all nouns bear a noun class prefix, as in *mu-kanda* 'book' of class 3 and *mi-kanda* 'books' of class 4, *ki-salu* 'job' of class 7 and *bi-salu* 'jobs' of class 8, *di-n.kondo* 'banana' of class 5 and *ma-n.kondo* 'bananas' of class 6, and so on (idem: 8). Note that they are not merely historical remnants of an earlier noun class system since they are used quite regularly to mark differences in noun class belonging as well as grammatical number.[83] It is perhaps significant that the only attested type 1E language is a recognized creole (see Samarin 1991).

The above completes the survey as regards languages of type 1, with five subtypes being distinguished according to the typology of their respective concordial systems. When we turn to the system of noun prefixes, we can make similar subdivisions as above. Type 1 languages, as already explained, are such that exhibit a traditional type of noun prefix system based on a set of noun classes exceeding a total of 5 (see also the beginning of this chapter). To this we can add at

83 As for loan words, those deriving from French go into noun class pairing 1a/2. The prefix of the singular class is a zero-morpheme, while that of the plural is *ba-*. Loan words from other languages presumably also go into this class, but Swift & Zola (1963: 72) mention only French ones.



least four more types based on criteria similar to those above, corresponding to the different concordial types. Type 2 languages exhibit a mixed traditional/animacy-based noun prefix system. Specifically this refers to languages where plural animate nouns are marked with a special morpheme; I will sort out the details when we get there. Languages of types 3, 4 and 5 are such that were dubbed 'reduced' earlier in this chapter. Type 3 systems mark grammatical number and animacy (corresponding to concordial type C), type 4 systems mark only grammatical number (corresponding to concordial type D), and type 5 systems lack all kinds of prefixes on nouns (corresponding to concordial type E). As a mere armchair model, these five types would do well, but as we will see below, there are a few problems when confronted with some of the data. Indeed, there is need to add a further type not corresponding to any of the concordial types, namely, languages where, in addition to an animacy-based concordial system of type C, there is a traditional-type noun prefix system supplemented with an overgeneralized plural-marker. This is typologically similar to type 2, and thus I have labelled it '2''. A feature-analysis of the different types of noun prefix systems can be seen in the table in figure 45. (Incidentally, it is applicable to the different concordial types too.)

| WHAT NOUN PREFIXES MARK/DO | 1 | 2 | 2' | 3 | 4 | (5) |
|---|---|---|---|---|---|---|
| Noun class belonging | + | + | + | – | – | (–) |
| Grammatical number | + | + | + | + | + | (–) |
| Special animate plural marker | – | + | – | + | – | (–) |
| General plural marker | – | – | + | – | – | (–) |

Figure 45 Feature-analysis of different types of noun prefix systems
Type 5 is not a noun prefix system at all, thus the parentheses.

The different types of noun prefix systems and concordial systems may occur in different combinations. However, only a subset of all logically possible types can be exemplified. There are, for instance, no languages of the putative type 4A, that is, one with a noun class system consisting of a (strictly formal) traditional-type concordial system and where there are only two noun prefixes marking grammatical number only. The attested types are exemplified in the matrix in figure 43 and the geographical distributions involved are mapped in figure 46. I will discuss those that I can exemplify, at least for a start (see further below).

Lunda seems to be a good example of a type 2B language. In addition to a traditional-type noun class system with general animate concords, there is also a

special animate plural marker appearing on plural animate nouns. This marker consists of the class 2 prefix *a-*, which occurs on all plural animate nouns together with the 'traditional' plural prefix, as in *ayisupi* 'fools', plural of *chisupi*, which contains two noun prefixes: *a-* of class 2 and *yi-* of class 8.[84]

*chisupi* — Lunda (White 1944: 156)

| | |
|---|---|
| chi | supi |
| NP.7 | fool |
| 'fool' | |

*ayisupi*

| | | |
|---|---|---|
| a | yi | supi |
| NP.2 | NP.8 | fool |
| 'fools' | | |

An inanimate noun would have a single plural prefix only:

*chitembi*

| | |
|---|---|
| chi | tembi |
| NP.7 | skin |
| 'skin' | |

*yitembi*

| | |
|---|---|
| yi | tembi |
| NP.8 | skin |
| 'skins' | |

Some languages clearly fall in between types 1B and 2B (denoted '1~2B' in figure 46), for instance, Luchazi and Luimbi. Their noun class systems are much like the one found in Lunda, with the important difference that the just-described construction involving a double prefix "is limited to a few words only" (White 1944: 155).[85] In Luchazi, for instance, we find *miŋkondo* '(kind of) mongooses' with a single plural prefix of class 4 (*mi-*) but also *vamyaŋgana* 'chiefs' with a

84 It should be noted here that there exist other over-generalized plural markers than those derived from a class 2 prefix. The ones that I have found mentioned in the literature are all semantically marked. In Kimatuumbi, "[n]ouns referring to animals may be pluralized by adding the prefix *kí-* [of class 7?], in addition to the inherent [singular] class prefix" (Odden 1996: 28f). It does not seem to be a regular plural marking except for a subset of nouns, specifically some referring to lizards (idem: 29). In Lunda "the prefix *chi-* [of class 7] is used in some cases as a plural augmentative to the normal plural of any noun class" (White 1944: 156).

85 The author continues the sentence with: "and it is suggested that it may be in fact a relic of a universal double prefix such as is found in Lunda" (idem). Thus he presupposes a development from 2B to 1B, something that I will disagree with further below.



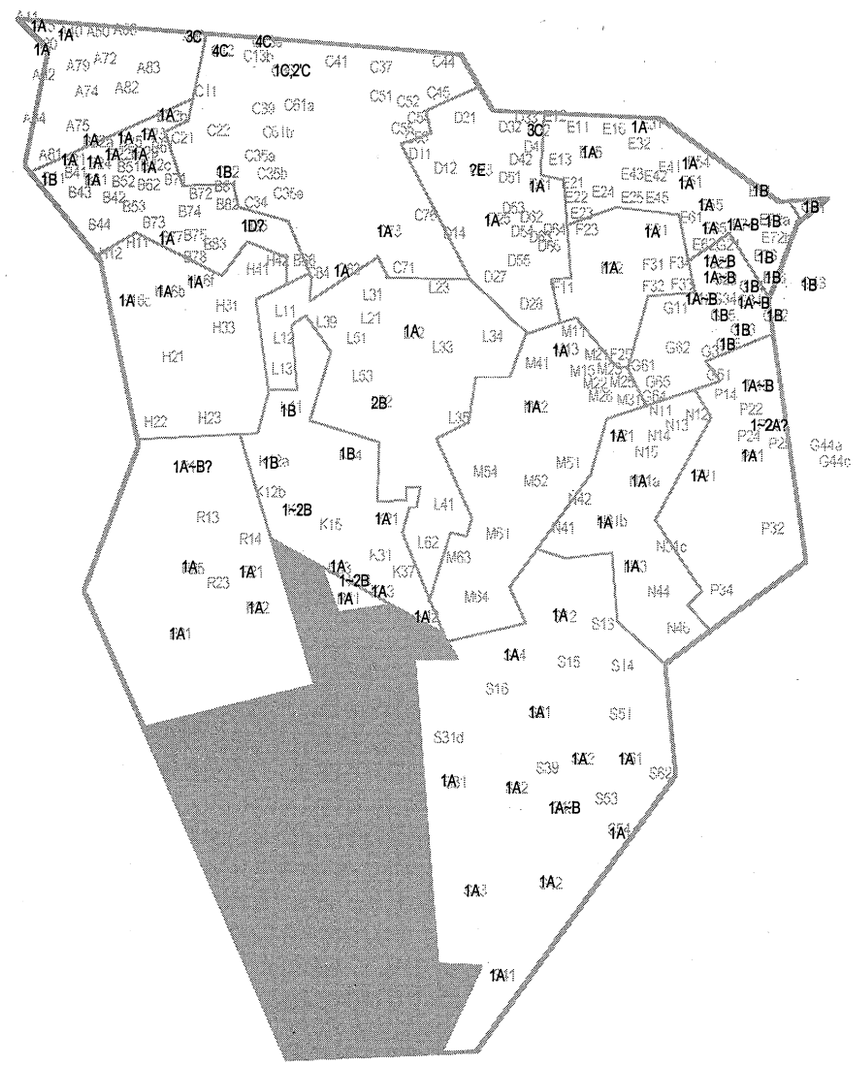


Figure 46 The distribution of Bantu noun class system types
The single type 1E system is not plotted into this map. The language in question, Kituba, has no map entry point. If it had, it would be located somewhere in upper zone H.

double plural prefix, *va-* of class and *my-* of class 4 (idem).[86]

The difference between noun prefix systems of types 2 and 2' is not very big. Bokamba (1988: 54ff) describes a situation in the Kinshasa variety of Lingala in which we find the noun prefix of class 2 (which is *ba-*) used as a general plural marker occurring on, if not all, at least the majority of plural nouns. In standard Lingala (that most often described in the literature) the words for 'white person' and 'kola nut' are *mu-ndele* and *li-belu* respectively; in the plural, they become *mi-ndele* and *ma-belu* respectively (idem: 54). In Kinshasa Lingala, the singular forms are identical to the standard forms, but their plurals are the following:

*bamindele* — Kinshasa Lingala (Bokamba 1988: 55)
ba mi ndele
NP.2 NP.4 white person
'white persons'

*bamabelu*
ba ma belu
NP.2 NP.6 kola nut
'kola nuts'

Thus, morphologically the situation is similar to that described for Lunda above, except that in Kinshasa Lingala animacy plays no role.[87]

Type 3 languages are languages with noun prefix systems entirely based on animacy. Traces of earlier traditional noun class systems can be evident as remnant fixed parts of the nominal roots. The logically possible types 3A, 3B, 3D as well as 3E seem nonexistent, type 3C being the only one safely attested in my sample. Amba and Kakɔ belong here. In Amba, all inanimate nouns have identical singular and plural forms, requiring no prefix at all, which is also true for most singular animate nouns. Plural animate nouns, however, regularly take a *ɓa-*prefix (Tucker & Bryan 1957: 69). A similar distinction is made with regard to subject concords (idem: 70). As for Kakɔ, the noun prefix system distinguishes animate and inanimate plural nouns, a distinction also found in the concordial system, though only possessive constructions (see Guthrie 1971: 34).

86 Although the just-used examples might indicate a human/nonhuman opposition at work here, the discussion offered by White (1944) does not make it clear whether this really is the case.

87 A change from a type 2 to type 2' system is evident also in the Ubangi language Sango, the national language of the Central African Republic. Says Thornell (1997: 71): "Number marking in Sango represents the most basic system cross-linguistically, only plural is marked. The marker consists of the prefix *â-*, which is attached to the noun [as well as some adnominals]", as in *â.zo* 'individuals' (singular: *zo*). Earlier studies have remarked that this plural-marker occurs mainly with animates, but Thornell's corpus analysis reveals that the use with inanimates is increasing, which "shows that a change may be in progress towards a more obligatory plural marking" (idem: 72). It is interesting to find this in Sango, since its history is closely allied to that of Lingala.



Type 4 languages exhibit a noun prefix system making only a singular/plural distinction. The only type 4 languages which I have found are Pande and Mbati. In the latter language, plural nouns are formed "by prefixing *ɓa-* in every case. Words never found with the prefix *ɓa-* are rare" (Richardson 1957: 40). In Pande, we find the same generalized plural *ɓa-*prefix, although not without certain restrictions. "There appears to be a reluctance in using *ɓa-* with words denoting parts of the body, but this may be a question of personal predilection rather than of grammatical usage" (idem: 35), so perhaps Pande is an intermediate between types 3 and 4. As for concords, both Pande and Mbati are clearly categorizable into subtype C; that is, their concordial systems are based on animacy (and grammatical number).

*ŋ̀gú̱rù̱ áwà* — Pande (Richardson 1957: 35)
ŋ̀gú̱rù̱ á wà
pig $SC_{ANIM}$ die
'the pig will die'

*mbú̱rá ɛ́ ẖílá*
mbú̱rá ɛ́ ẖílá
rain $SC_{INAN}$ stop
'the rain will stop'

Type 5 is recognized here mainly for completeness. Languages of this type do not mark noun class or grammatical number on nouns. I have not, however, found any safe attestation of a language belonging to this type, even though there may well be some in the northern Bantu area. Guthrie (1971: 42) says of Komo that it has "[n]o class agreement", which I take to mean that there is no operative concordial system. It thus belongs to concordial type E. Possibly it has no noun prefix system either, or possibly it makes a singular/plural distinction, an animacy-based distinction, or possibly it has a traditional type of noun prefix system. The data available to me give no clues.[88]

It should be noted that it is difficult to place the six above-recognized types into a single line representing a model of change. Thus the order 1 > 2 > 2' > 3 > 4 > 5 is an unlikely diachronic model. The stumbling block is the 2' type. It is not difficult to understand how a type 2 system may change into a type 2' system. All it takes is for an over-generalized animate plural marker to be even more over-generalized into a plural marker for all nouns. It is also not difficult to see how a

88 There are in fact a number of languages which have been difficult to analyse due to too fragmentary data, for instance, Bogɔngɔ and Boa.

type 2 system could develop into a type 3 system. It may perhaps be a more dramatic restructuring process but not an inconceivable one. In a type 2 system we have a single pair of animate or human classes and several classes used for other nouns. In type 3, the "other classes", the inanimate ones, are lumped into a single inanimate class, which is then a strict animacy-based system with number distinctions (Kakɔ and Amba). Going from type 2' to type 3 would seem a strange course of events, since it assumes that a traditional-type noun prefix system which marks plurals with a special over-generalized plural marker develops into a system marking only animates.[89] However, a 2' system may develop into a system of type 4, a change which results in putting the noun prefix system out of use, that is, except for a general plural marker. Thus a more comfortable diachronic model would look something like figure 47; that is, if a noun prefix system changes, it changes according to either the path 1 > 2 > 3 > 4 > 5 or 1 > 2 > 2' > 4 > 5. It may, of course, stop anywhere in the middle.

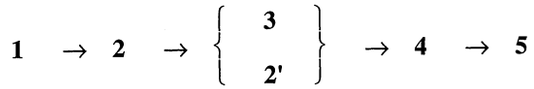



Figure 47 Bantu noun prefix systems diachronically ordered
See also further below where this is elaborated even more.

A few words may here be said about the introduction of a special animate plural prefix, characteristic of type 2 systems. The origin of these is presumably found in a situation like that found in, for instance, Rugciriku (see Möhlig 1967: 113ff). Many animate singular nouns belonging to classes 9 and 12 (but not other non-1 classes) form their plurals in class 2; thus we find pairings 9/2 and 12/2, while in many other languages we would find the same nouns in pairings like 9/10 and 12/13. Inanimate singular nouns in these classes form their plurals in classes 10 and 13, as they belong to pairings 9/10 and 12/13 respectively. Similar situations are found in Rukwangali, where we find non-1 animates in pairings 9/2, 11/2 and 12/2 (Dammann 1957: 8ff), and Kanyok, where the pairings relevant for this discussion are 9/2 and 11/2 (Mukash-Kalel 1982: 209ff). These animate nouns have presumably derived from previous "regular" pairings like 9/10, 11/10 (or perhaps 11/6) and 12/13; that is, nouns in these classes have for some reason been reorganized into, say, 9/2 for animates and 9/10 for inanimates (see also Alexandre 1967). Having made this step, the plural class 2 prefix is then over-generalized to

89 Not an impossible process, of course, if we accept that it could have come about by way of areal influence form neighbouring languages.



| | LANGUAGE | SINGULAR NOUNS | PLURAL NOUNS |
|---|---|---|---|
| (a) | Otjiherero (R31) | $NP_{SG}$ + $NOUN_{ALL}$ | $NP_{PL}$ + $NOUN_{ALL}$ |
| (b) | Rukwangali (K33) | $NP_{SG}$ + $NOUN_{ANIM}$ | *va* + $NP_{SG}$ + $NOUN_{ANIM}$ |
| (c) | Luchazi (K13) | $NP_{SG}$ + $NOUN_{ANIM}$ | (*va*) + $NP_{PL}$ + $NOUN_{ANIM}$ |
| | Luimbi (K12a) | $NP_{SG}$ + $NOUN_{ANIM}$ | (*va*) + $NP_{PL}$ + $NOUN_{ANIM}$ |
| | Lunda (L52) | $NP_{SG}$ + $NOUN_{ANIM}$ | *a* + $NP_{PL}$ + $NOUN_{ANIM}$ |
| (d) | Amba (D22) | (ø) + $NOUN_{ANIM}$ | *ɓa* + $NOUN_{ANIM}$ |
| | Kakɔ (A93) | *mɛ* + $NOUN_{ANIM}$ | *ɓe* + $NOUN_{ANIM}$ |
| (e) | K. Lingala (C36) | $NP_{SG}$ + $NOUN_{ALL}$ | *ba* + $NP_{PL}$ + $NOUN_{ALL}$ |
| (f) | Pande (C12) | (ø) + $NOUN_{ALL}$ | *ɓa* + $NOUN_{ALL}$ |
| | Mbati (C13a) | (ø) + $NOUN_{ALL}$ | *ɓa* + $NOUN_{ALL}$ |

Figure 48 Different types of pluralization formulas schematized

*all* animates, that is, also those not in classes 9, 11 or 12. However, for this to become a type 2 system, it is required that the original plural prefix of the latter nouns is retained, a situation which is then extended also to the 9/2, 11/2 and 12/2 nouns, which then become reanalysed (again) as 9/10, 11/10 and 12/13 nouns. I do not know how far-fetched this may sound, but it seems a reasonable pathway to me at least.[90] In the table in figure 48, the just-hypothesized development is represented by (a) via (b) to (c). (The first two are type 1 systems.)

If we expand our attention also to the concordial systems, we can first note that there are no attested languages where only the noun prefix system has changed. Thus one could assume that when a Bantu noun class system changes, either it is the concordial system alone that does so (witness types 1A through 1E described above) or else the concordial and the noun prefix system change

90 Another option is that the split into, say, 12/2 for animates and 12/13 for inanimates is never fully realized. In Rugciriku, for instance, animate singular nouns of class 12 have three possible plural forms, which seem lexically defined (see Möhlig 1967: 127f), either in the regular 12/13 pairing, like *ka.rengà* 'cat' with plural *tu.rengà*, or in a 12/2 pairing, like *ka.kúru* 'eel' with plural *βa.ka.kúru*. Möhlig (1967: 112) also lists the possibility of using a composite plural prefix consisting of the class 2 prefix added onto a "regular" plural class 13 prefix, *βa.tu-*, but there are no examples given.

together. Perhaps a better way to phrase this is to say that when the concordial system changes, it may or may not drag the noun prefix system with it. It is interesting to note that most lingua francas and/or creolized language varieties display the former type of change (concords only), for instance, Kituba, Lingala and Shaba Swahili.[91] The latter type of change is found exclusively in the northern Bantu area, as seen in the map in figure 46. No doubt these facts have interesting implications for the interpretation of how and why these changes have come about and developed. There is not much I can say about why change takes place, so below I will focus briefly on the how's.

A diachronic model based solely on the attested types should look something like figure 49. There is at least one point where this model clearly needs some amendment, namely, the change from 2B > 2'C or 3C.

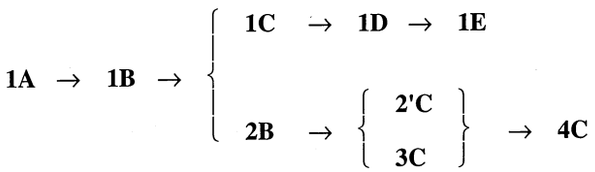



Figure 49 Bantu noun class system types diachronically ordered: attested types only

As it stands now, it requires a simultaneous change in both noun prefix and concordial systems. Perhaps a more likeable model would split that part into 2B > 2C > 2'C/3C in which case we would have to add the unattested 2C type, as in figure 50.

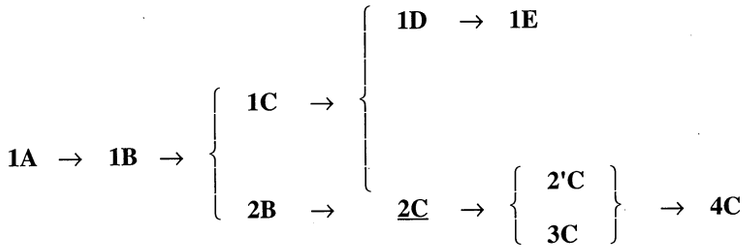



Figure 50 Bantu noun class system types diachronically ordered: adding the 2C type

91 Shaba Swahili is spoken in south-western Congo-Kinshasa. Its noun prefix system looks much like that in Standard Kiswahili but the concordial system is much reduced. Adjectives seldom take concords and the verbal series show evidence of much simplification (De Rooij 1993).



The 1C > 2C > 2'C change is required to cover the case of Kinshasa Lingala described earlier. Standard Lingala is a type 1C system and Kinshasa Lingala is a 2'C system. Assuming that standard Lingala represents a "less" changed variety, the above addition is necessary.

We could of course have constructed a model based on all logically possible types, which would contain 30 different types of noun class systems, that is, 5 types of prefix systems times 6 types of concordial systems. This seems unnecessary to me, though. A more moderate model can be arrived at by including only those types, which seems possible if we stick to the following provisos (see also Corbett 1991: 255):

1) the concordial system changes first
2) the changes are unidirectional in the orders 1 > 5 and A > E
3) the original stage is that of 1A

In this way a number of types are excluded, like the putative type 2A. A change from 1A to 2A is excluded by the first proviso, and a change from 2B to 2A is excluded by the second. Any one of the three provisos could of course be wrong, but the data available to me seem to support them. The full hypothesized model would thus look like figure 51, in which the attested types are bold-printed. For simplicity, I have excluded type 5 systems entirely.

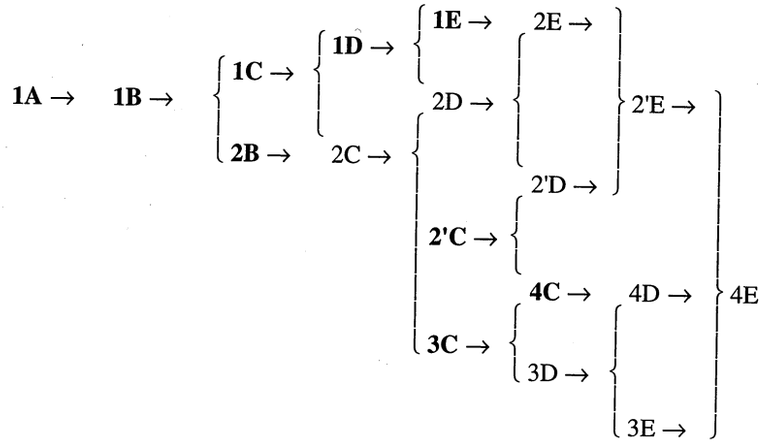



Figure 51 Bantu noun class system types: a view towards a full diachronic model
Attested types appear in bold print.

As for unidirectionality, I am not fully convinced that the model has to be exactly that (despite the use of arrows), even though it might seem the most comfortable assumption to make. Possibly individual sections are unidirectional (like 1A→1B?; but recall the discussion in the previous section), while others are not. If there are parts that are not unidirectional, then we might find languages oscillating between two or more types. Be that as it may, the diachronic model in figure 51 is not suggested here as a definite description of how Bantu noun class systems change. It is to be seen as a speculative exploration in armchair theorizing only. As such it is offered as a skeleton to be worked upon. One way to enhance the diachronic model (as well as the typological matrix in figure 43) would be to consider how grammatical gender varies and changes in non-Bantu languages, both those related to Bantu languages and those not related to Bantu languages. This would, however, fall far outside the limits of the present study, so I leave the issue here.

### 3.5.2 What is a Bantu noun class?

I have used the term 'noun class' instead of 'gender' for various reasons. Earlier in chapter 1, for instance, I alluded to terminological tradition, but this is not the whole truth. Here I shall try to clarify the theoretical background to why I think 'noun class' is not easily equated with 'gender'. The notion of 'grammatical gender', as it has come to be understood in recent literature, relies heavily on Corbett's (1991) high-ranking monograph, so I start with a few gender-related notions that he uses.

First, an 'inquorate' gender is a gender which is "postulated on the basis of an insufficient number of nouns, which should instead be lexically marked as exceptions" (Corbett 1991: 170). There are, however, problems related to these 'inquorate' genders. First there is the question of what constitutes "an insufficient number". Corbett himself admits that "there can be no simple answer" (idem: 172). In some cases this may be nothing but an empirical question; that is, do enough language elicitation and you might eventually end up with a gender that is not 'inquorate'. When elicitation is not available as a data-gathering process, grammar books must be consulted, especially in multi-language surveys like this one. In short grammar descriptions, basically all genders are exemplified only with a handful of nouns, and it is not always clear whether or not these constitute the entire empirical material, or whether they are chosen as pedagogical examples from a larger corpus. Another problem arises from the fact that it seems almost too convenient to use 'inquorate' as a euphemism for 'exceptional' when parts of the empirical material seem to defy or break up pre-established models. As for the present study, I have simply ignored the concept of 'inquorate' gender altogether.



It must be admitted, though, that this has been due to lack of sufficient empirical data more than anything else.

In connection with this, it should be said that 'inquorate' genders are useful only as long as pluralization (or rather, noun class pairing) is defined as rules separate from lexical items. Consider the two hypothetical grammars, parts of which are schematized in figure 52. Assume that both are rival descriptions of one and the same hypothetical language. In this language we find six noun classes, three of which are used for singular nouns, the other three for plurals. These combine into four pairings: 1/2, 3/4, 3/6 and 5/6. Of these, pairings 1/2, 3/4 and 5/6 are very frequent while pairing 3/6 is rare, being applicable to, say, two out of every 5,000 elicited nouns. For any common-sense grammarian it would clearly qualify for the category 'exceptional' (and even 'inquorate').

| | GRAMMAR 1 | GRAMMAR 2 |
|---|---|---|
| *Lexicon (excerpt)* | $NOUN_{SG=1}$ | $NOUN_{Pairing=1/2}$ |
| | $NOUN_{SG=3}$ | $NOUN_{Pairing=3/4}$ |
| | $NOUN_{SG=3/PL=6}$ | $NOUN_{Pairing=3/6}$ |
| | $NOUN_{SG=5}$ | $NOUN_{Pairing=5/6}$ |
| *Default rules for pluralization* | a) sg 1 → pl 2<br>b) sg 3 → pl 4<br>c) sg 5 → pl 6 | (no rules needed) |

Figure 52 Small parts of two hypothetical grammars

If nouns are inherently specified for singular class only, as in grammar 1 in figure 52, we must set up separate rules for the formation of plurals. The exceptional 3/6 pairing can then be marked in the lexicon as exceptional. The more nouns we include in the lexicon, the more economical such a grammar becomes. If each noun is instead marked for pairings, as in grammar 2 in figure 52, we need no rules, and no noun needs to be marked as exceptional, no matter how irregular it is. There would be no gain in adding the feature 'exceptional' (or 'inquorate') in a grammar like the second one. It is not always self-evident which grammar Bantu grammarians generally prefer, even though the first seems like the most probable candidate. My personal preference is undoubtedly (and uncontroversially) for the first grammar. I see no gain in subcategorizing nouns for anything else than their singular (or single) class belonging. There are some interesting theoretical consequences of this, the chief of which is that the inherent gender of any noun is

its singular/single class belonging.[92]

The concept of 'gender' itself needs further elaboration here. Corbett (1991: 150ff) makes a useful distinction between (his terminology) controllers and targets, on the one hand, and between controller genders and target genders, on the other. A controller is a word which has gender as its inherent property, that is, a noun. A target is a word on which agreement markers occur, that is, adjectives, verbs, and so on. The target genders of a language are those genders which are distinguished on targets, for instance, in Rumanian (to use one of Corbett's example), there are only four gender markers used on adjectives: *-ø* (zero) and *-a* in the singular and *-i* and *-e* in the plural. (Compare, for example, *scaunul e bun-ø* 'the chair is good' versus *scaunele sînt bun-e* 'the chairs are good'.) Thus Rumanian makes a two-gender distinction in the singular and a two-gender distinction in the plural. These are the Rumanian target genders. Controller genders are then established on the basis of what nouns are associated with what target genders. In Rumanian nouns can be divided into three controller genders:

1) nouns whose adjectives take *-ø* in the singular and *-i* in the plural
2) nouns whose adjectives take *-ø* in the singular and *-e* in the plural
3) nouns whose adjectives take *-a* in the singular and *-e* in the plural

In sum, Rumanian has two target genders in the singular and the plural, respectively, and three controller genders. On the face of it, a Bantu noun class would seem to correspond to Corbett's target gender, while his controller genders would seem to equal Bantu noun class pairings. However, they do not, and there seems to be good grounds for this. It seems fairly clear that when Corbett talks about target genders he does not mean to include information about gender markers appearing on nouns (the controllers). However, when I have used the term 'noun class', I have taken it to refer to any given combination of a noun prefix plus set of concords associated with that, which is also the most common usage in the literature on Bantu languages. This, however, is a slight oversimplification. Usually there are no explicit definitions at all in the literature, even though a definition along the lines that I use can often be detected from usage.[93] Thus I use

92 It also means that pluralization in Bantu languages may have to be treated on a par with secondary classification, that is, as a derivational phenomenon, not inflectional; or possibly as a category inbetween derivation and inflection.

93 When there are explicit definitions, they are not always adhered to in usage, however. For instance, Guthrie (1967b: 13) defines noun class as a "distinct type of agreement" but one is strongly inclined to believe that his recognition of noun classes in various Bantu languages (1971: 2ff) is often based either on the form of noun prefixes alone or on an insufficient number of agreement markers, usually only adjective and verb concords (see also comments in supplementary section A). A discrepancy between definition and usage usually derives from the fact that type 1A systems have traditionally been taken as the norm, so that noun class belonging is determined on the basis of noun prefix alone. In type 1A systems, this is a sufficient strategy, but when the same strategy is employed with other noun class system types, it fails.



a definition preferred by, for instance, Fortune (1955: 51), who says that "we may define a noun class as a group of nouns which do not differ in prefix and which govern the same concords." Thus where two noun classes have identical sets of concords, they are still two separate noun classes provided they differ with respect to their noun prefixes. (This is important in a comparative study of the sort that I am pursuing here, as will be made clear in the next two chapters.)

To clarify, then, in a Bantu noun class system of the traditional type there is a set of noun prefixes. These mark what Bokamba (1993) calls a 'morphological noun class'. There are also several series of concords, each of which marks a 'syntactic noun class' (Bokamba's terminology), and it is these that equal Corbett's target genders. A noun class is a combination of a given noun prefix (NP) with a given set of concords (C). The NP+C-combinations, in turn, combine into noun class pairings, roughly corresponding to Corbett's controller genders; I say "roughly" because controller genders constitute combinations of target genders, and these are not, as noted, equal to noun classes.

It should be added that the definitions just outlined are not offered as superior or better in any sense. My aim here is only to clarify my own use of the terms 'noun class' and 'noun class pairing', which are adapted to the aims and needs of the present study. I could, of course, have defined noun classes as target genders, that is, without recourse to noun prefixes. This would, however, have been unfortunate since much valuable dialectological data would then be totally lost. For instance, in quite a number of Bantu languages, noun classes 3 and 14 employ identical sets of concords, while retaining separate noun prefixes; thus their full notation are '3+14C' and '14+3C', respectively. There are also some languages in which these two classes have completely merged, concords as well as noun prefix (notated '3=14'). The geographical distribution of these two phenomena shows very interesting distributions, as we will see in the next chapter (specifically in figure 59). Had we looked for target genders and lumped together the 3+14C, 14+3C and 3=14 classes into a single noun class, valuable dialectological data would have been lost in the process.

At any rate, the just-discussed differences are to a large extent theoretical, more specifically a question of preferred definitions, which is to say that I have used a terminological framework adapted for my present purposes. This will be made all the more clear in the next chapter, which constitutes a dialectological and/or areal-typological study of Bantu noun classes.

# Chapter 4

# Selected distributions and coherence areas

The basic theme of the present chapter is to look for geographical patternings of some of the noun class features discussed in the previous chapter. Tracking the geographical distributions of linguistic features is what dialectologists usually do.[94] My approach here, then, is basically that of the dialectologist.[95] The features chosen are such for which data have been fairly easily available. The empirical data which underlie most of the present distributions can be found in supplementary section A.

For convenience of presentation, the distributions are here divided into two main sets, one showing distributions of noun classes, noun class pairings and mergers, the other showing distributions of a selection of semantically defined distributions, specifically noun classes used for language names, infinitives, diminutives and augmentatives. Even though this chapter aims to describe distributions from a synchronic point of view, a few diachronic reasonings occur here and there.[96]

## 4.1 A few opening remarks about the distributions

The word 'distribution' is used here as a short-cut for 'attested geographical distribution of a given linguistic feature'. In fact, it is used even more restrictedly than this, in that the specific linguistic features under scrutiny are such that are related to Bantu noun class systems.

94 See Chambers & Trudgill (1980) and Francis (1983) for two good introductions to this particular discipline.

95 Possibly some readers prefer to characterize my approach as that of the areal linguist instead. Perhaps a moot point, but dialectology does come closer to what I do here. Hock (1988), for instance, makes a distinction between the areal approach and the dialectological approach by characterizing the former as first defining an area and then see what linguistic features distinguishes it from neighbouring areas, while the latter approach is characterized by looking for the geographical distribution of linguistic features and see what areas emerge (if any). Even though I have initially defined my area of study, the Bantu area, I am not concerned here with how it distinguishes itself from non-Bantu areas.

96 The diachronic aspect is pursued more consistently in the next chapter.



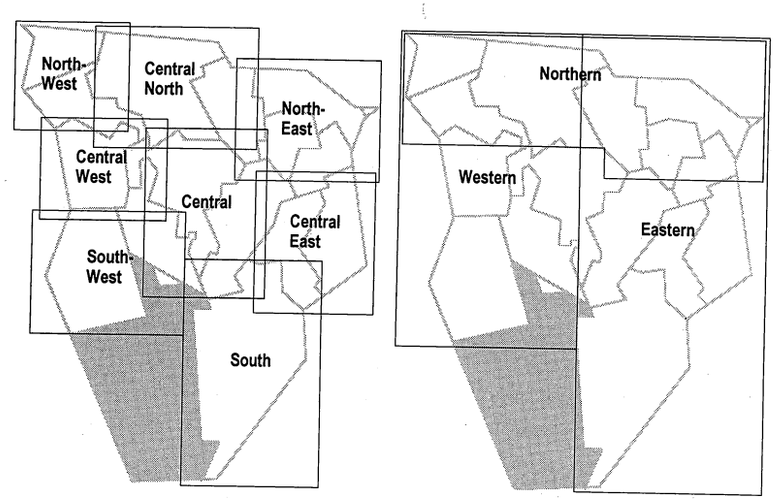



Figure 53 Rough geographical indicators used in chapters 4 and 5

Most geographical directions are given as 'western Bantu area', 'southern Bantu area' and so on (see figure 53). They are used strictly as geographical indicators only, not as assumed genetic ones, that is, unless they are capitalized, as in 'Western Bantu', and so on.[97] Occasionally I will use indications such as 'zone S', 'zone E' and so on, in which case they refer to Guthrie's zones (see figures 6-8 in chapter 2). For ease of reference, when a language is first mentioned in any given paragraph below, it is followed by its non-conflated map entry point (for which see supplementary section B).

### 4.1.1 The outer limits and inner qualities of a distribution

The geographical patterning of linguistic features can take many forms, and it is important to find good ways of characterizing them in the best way possible. For this, I will use broad indicators to capture the nature of any given distribution. In combination with the maps showing the exact distributional patternings, I find this sufficient. The outer limits, or the geographical scope, will be characterized with the fairly noncommittal adjectives 'wide' and 'restricted' depending on whether or not they cover large or small parts of the entire Bantu area. A maximally wide distribution covers the entire Bantu area, while a maximally restricted distribution is such that is attested in only a single language. However, a maximally wide

97 And when they do, it does not in any sense imply that I support such claimed genetic groupings.

distribution need not be found in *all* languages, or even the majority of the languages. Thus I will supplement 'wide' and 'restricted' with two more adjectives, namely, the equally noncommittal 'dense' and 'spotty' depending on whether or not they are just that, namely, dense or spotty. While 'wide' and 'restricted' refer to the outer limits of any given distribution (but see below), 'dense' and 'spotty' refer to what the distribution looks like inside these outer limits. There are, of course, distributions that fall in between any of these characterizations and many that are hard to define, sometimes simply due to limitations of data. The two pairs of adjectives are best seen as end-points on two gradable scales, or continua. This means that the proper application of these characterizations is by necessity impressionistic rather than the result of a well-defined operationalized process. They are useful enough nonetheless.

### 4.1.2 Distributions as coherence areas

When any given distribution is more or less clearly demarcated geographically, as either wide or restricted, we can refer to this as a '(linguistic-typological) coherence area'.[98] Ideally, a given linguistic feature is found only within the limits of this geographical area, either densely or spottily. Occasionally linguistic features are distributed in what look like several non-continuous coherence areas; that is, a certain linguistic feature seems to be geographically concentrated in two or more areas, which can be more or less well-demarcated. Such distributions are here referred to as 'double-distributions', 'triple-distributions' and so on, whatever the case may be. In addition to this, any given coherence area does not by necessity have to cover all occurrences of a certain linguistic feature, since it is sometimes more convenient to recognize so-called outliers, that is, individual languages that seem to be "displaced" from a given coherence area with which they share a certain linguistic feature.[99] Note also that a coherence area is defined according to a single feature, for instance, a certain noun class, noun class pairing or noun class function. However, several linguistic features are sometimes geographically distributed across (roughly) the same areas. In such cases we may talk of 'co-territorial coherence areas'.

During the course of areal-linguistic and/or dialectological studies, there have been several terms used for concepts near-identical or similar to 'coherence areas'. Unfortunately, none of these have proved useful for my purposes, not so much for

[98] Maximally restricted distributions will not be recognized as putative coherence areas in this study. If a certain linguistic feature is attested in only a single language, I find little reason to dub it 'coherence area'.

[99] Possibly one could paraphrase this by saying that an outlier is a maximally restricted coherence area in a would-be double- (or more) distribution. This is essentially the same distributional patterning as that which Nichols (1992: 203ff) terms 'hotbed/outlier distribution'; one important difference is that her outliers can include more than one language. I use 'outlier' to refer to only a single language.



what they could be used for, but rather for how they have come to be used traditionally. This concerns in particular terms like 'linguistic area' and 'convergence area'; two terms that are used more or less interchangeably in the linguistic literature. Both of these terms are most commonly applied to areas "in which, due to borrowing and language contact, languages ... come to share certain structural features" (Campbell 1998: 300f). Both terms are, furthermore, used for situations where "usually some of the languages are genetically unrelated or at least are not all close relatives" (idem: 301).[100] Thus there are a couple of, for me undesirable, provisos here. Firstly, they effectively exclude the Bantu area, since the Bantu languages are anything but unrelated. Secondly, there is a conclusive assumption in the use of terms like 'convergence area' that the languages involved have "come to share" linguistic features among one another; that is, similarities are the result of a process of convergence. Well-demarcated areas of typological coherence could be the result of retention, and thus we could identify 'retention areas' too.[101]

There is a methodological gain in separating the recognition of area in which the languages share a certain linguistic feature from making claims about how or why the languages in question have come to share this feature in the first place. In any given typologically coherent area, answers to how linguistic similarities have come about are not always easy to find. In many cases, we can only speculate. Thus interpreting distributions in a diachronic framework, which I will do in chapter 5, is secondary to the process of identifying the areas in question. Therefore applying attributes like 'convergence' (or 'retention') is only premature in the present context. The term 'coherence area' thus serves my purposes well, I think. It applies to areas with closely related languages as well as being diachronically neutral. (The last part perhaps being the most important.)

Moreover, it may be worth pointing out that what dialectologists refer to as an 'isogloss' constitutes the boundaries of a coherence area. In other words, a coherence area is an isogloss doing the full loop.

[100] Both 'convergence area' and 'linguistic area' are often used as modern English renditions of the German 'Sprachbund', originally coined by Nikolaj Trubetzkoy in 1928 (Bynon 1977/1983: 244). A further term encountered in modern linguistic literature is 'diffusion area'. Others also exist.

[101] In her study of linguistic diversity in space and time, Nichols (1992: 13ff) identifies two types of linguistic areas: spread zones and residual zones. The latter is characterized by, amongst other things, high genetic diversity (many non- or distantly related languages), slow or no spread of languages, high structural diversity, no lingua franca and no obvious centers of innovation even though there may be clear areal features (idem: 21). Spread zones are characterized by, amongst other things, little genetic diversity, rapid spread of languages, low structural diversity and clear centers of innovations (idem: 17). A spread zone, furthermore, "is a long-lasting phenomenon, but it preserves little linguistic evidence of its history" (idem). The Bantu area fits well with both, or neither. There is little genetic diversity, which would make it a spread zone. We find several lingua francas in the Bantu area, like Kiswahili and Lingala (see, for instance, Heine 1970), though none that covers the entire area. As for the degree of structural diversity, it is lower in the south of the rainforest, but rather complex inside it, though still lower than in many other African areas, like Chad, Sudan and Ethiopia. All in all, Nichols' concepts are too specific for her own needs to be useful for me.

### 4.1.3 Some reservations

It cannot be sufficiently emphasized that the nature of the distributions discussed in this chapter is dictated by the data as they appear in supplementary section A. The maps re-tell the data given there. Thus they do not pretend to map "reality". The relation to actual linguistic facts is a question related to the reliability of the sources and my interpretation of them (see more on this in chapter 1 above).

Neither is the information conveyed by the maps exhaustive. The number of sampled languages should, in any case, make the distributions fairly reliable. To this, however, there are a couple of reservations that need to be made. One concerns the fact that not all grammarians give information about the absence of linguistic features; after all, it is seldom necessary or even recommendable to do so in descriptive work. It would be tedious for a reader to have to wade through paragraphs explaining, say, which noun class pairings do not exist in the language in question. Thus non-mentions of noun class features are often useful indications of absence, at least in the more comprehensive grammar descriptions. But we can never rid ourselves fully from the possibility that a given linguistic feature was simply not noticed by the grammarian, or it was simply deemed too infrequent and/or irregular for mention (something that one is likely to expect in the case of small sketchy grammar descriptions). However, explicit statements about the absence of certain features are made by some sources. Such statements are particularly frequent in the comparative works of Guthrie (1967b/1971; 1970) and Kadima (1969), but they occur also in some language-specific grammar descriptions, like the ones offered by Tucker & Bryan (1957). For a comparative survey like the one presently pursued, explicit statements about absence of features are very useful. When there is an explicit claim of absence in my sources, I have indicated this in the maps below with a so-called em-rule, that is, an "—" over the appropriate map entry point. Otherwise there is simply no mention at all.

The second reservation concerns mergers of noun classes. It is not always clear from the literature whether claimed mergers are based on sufficient amounts of data or only on fragmentary data. Unless I have found reason not to, I have accepted all claims of mergers. There are instances where one source claims a merger of two classes, while another source claims separate existences for the same two classes. Problematic cases are discussed in supplementary section A, and occasionally in this chapter too, where need be.

Furthermore, I will not discuss all details. Instead I will concentrate on what I consider to be the most interesting and noteworthy distributions. There is usually no point in listing single occurrences of odd pairings just for the sake of listing them. The data are sufficiently clear in the maps that follow anyway. Moreover,



there are a number of question marks in the maps that follow below. Where I find reason to discuss them here, I will. Otherwise the reader is referred to the comments and annotations in supplementary section A.

## 4.2 Survey of noun classes and noun class pairings

The maps discussed in the present section depict the distribution on noun classes, noun class pairings and mergers. The distribution of noun classes are partly incomplete, for instance, the first map below (figure 54) shows the distribution of the plural classes for singular class 1. Implicitly this gives the distribution also of class 1. But, where I have information about the presence of class 1 but no information about its plural class, there is no indication at all in the map. Thus the fully distribution of class 1 (according to the data in supplementary section A) cannot be deduced. This has little relevance for the distributions, however, since there is enough information in all maps anyway. The omissions are minor.

Note also that some of the data are by necessity reduplicated. For instance, the distribution of 4=8 mergers occurs in one map that depicts mergers and near-mergers involving class 4 (figure 60) and another map that depicts the mergers and near-mergers involving class 8 (figure 66).[102] Such distributions are not discussed twice but where they best fit into the context. Also, a notation like '3≈11' is to be read as an abbreviation for 'mergers and near-mergers involving classes 3 and 11'. It thus covers both full mergers (like 3=11) and near-mergers (3C=11C or 3+11C).

### 4.2.1 The distribution of singular classes 1 and 1a, and their plurals

The only pairing involving singular class 1 with a maximally wide distribution is that of 1/2 (see figure 54). According to Guthrie (1967a: 347), singular class 1 occurs only in pairing 1/2. This is quite obviously wrong. There are a few other pairings too, for instance, pairings 1/4 and 1/6, both of which display fairly wide distributions, though with no denseness at all. Other rare plurals of class 1 include 9=10 in Lingala (C36) and 10=19 in Myene (B11).[103] For two languages, Tio (B75) and Buja (C37), I have not been able to attest the occurrence of pairing 1/2, only pairing 1/4. However, both Buja and Tio probably have pairing 1/2. Kadima (1969), who is the main source for these languages, mentions in his comparative survey that a number of classes, among them classes 1 and 2, are attested "dans toutes les languages actuelles" (idem: 83). Although he does not give pairing 1/2

[102] There is one exception to this. A few putative mergers and near-mergers in the north-west (specifically zone B) involving classes 14 and 15 are discussed only in connection with class 15, but not 14.

[103] In Myɛnɛ, the full pairing is 1=3=11=14(=15?)/10=19 (see Jacquot 1983: 42), that is, the result of a massive merger.

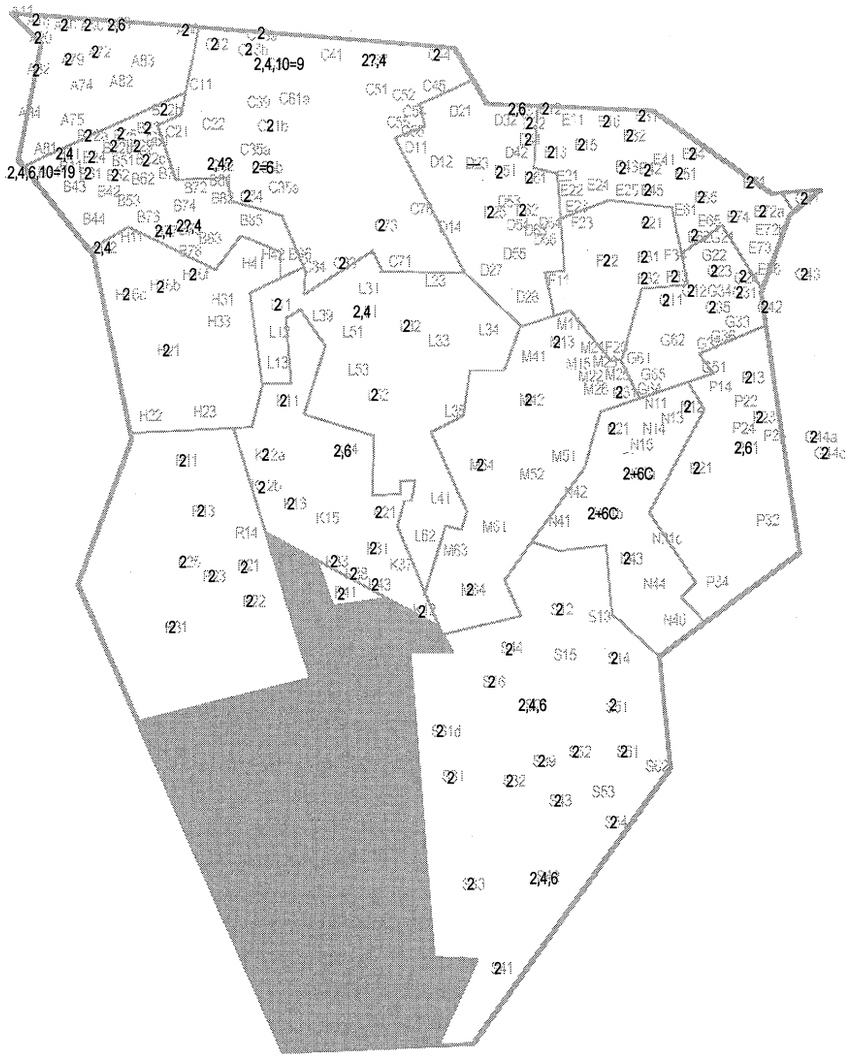


Figure 54 The distribution of plurals to class 1
"C" = concords; "—" = claimed non-occurrence of class 1.



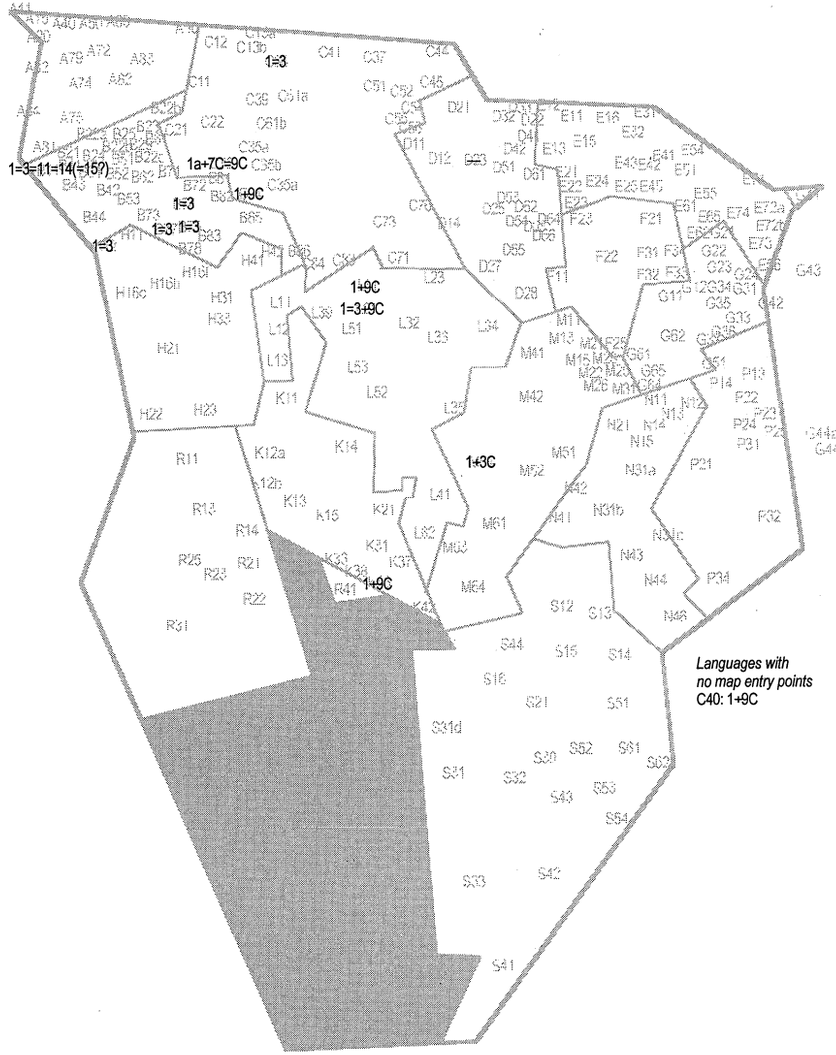



Figure 55 Mergers, near-mergers and non-occurrences involving classes 1 and 1a
"C" = concords; "—" = claimed non-occurrence of class 1.

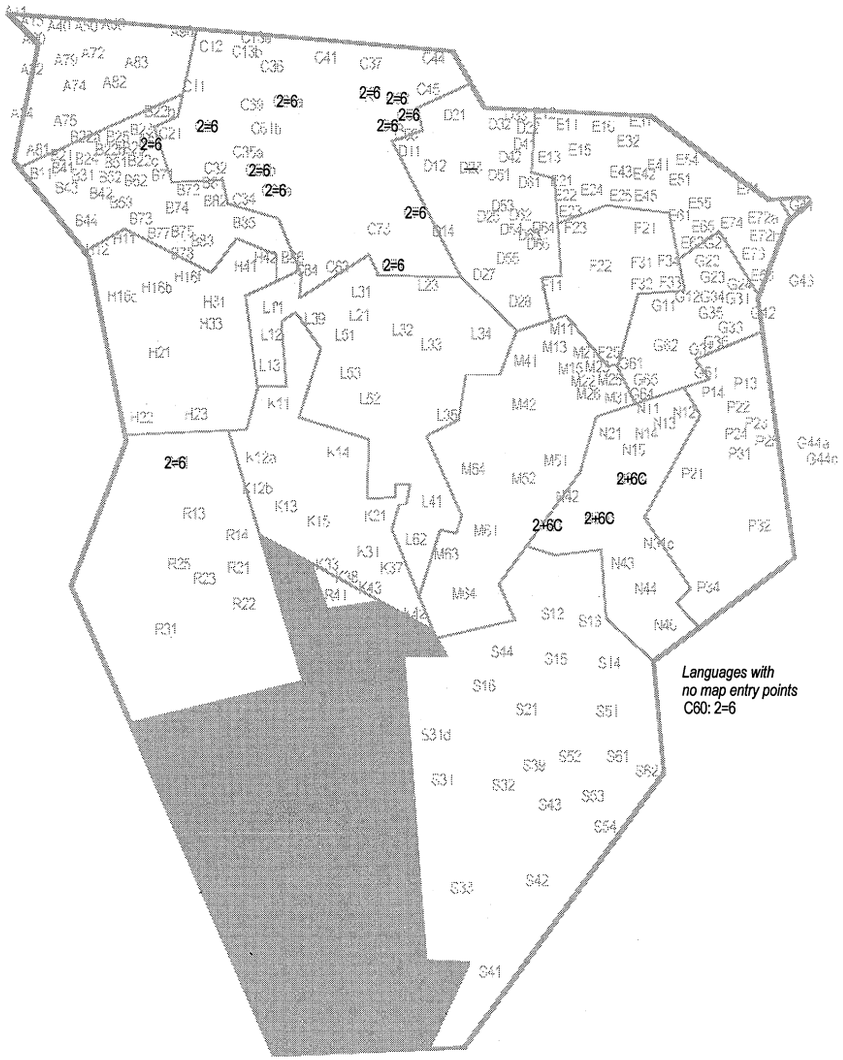



Figure 56 Mergers, near-mergers and non-occurrences involving class 2
"C" = concords; "—" = claimed non-occurrence of class 2.



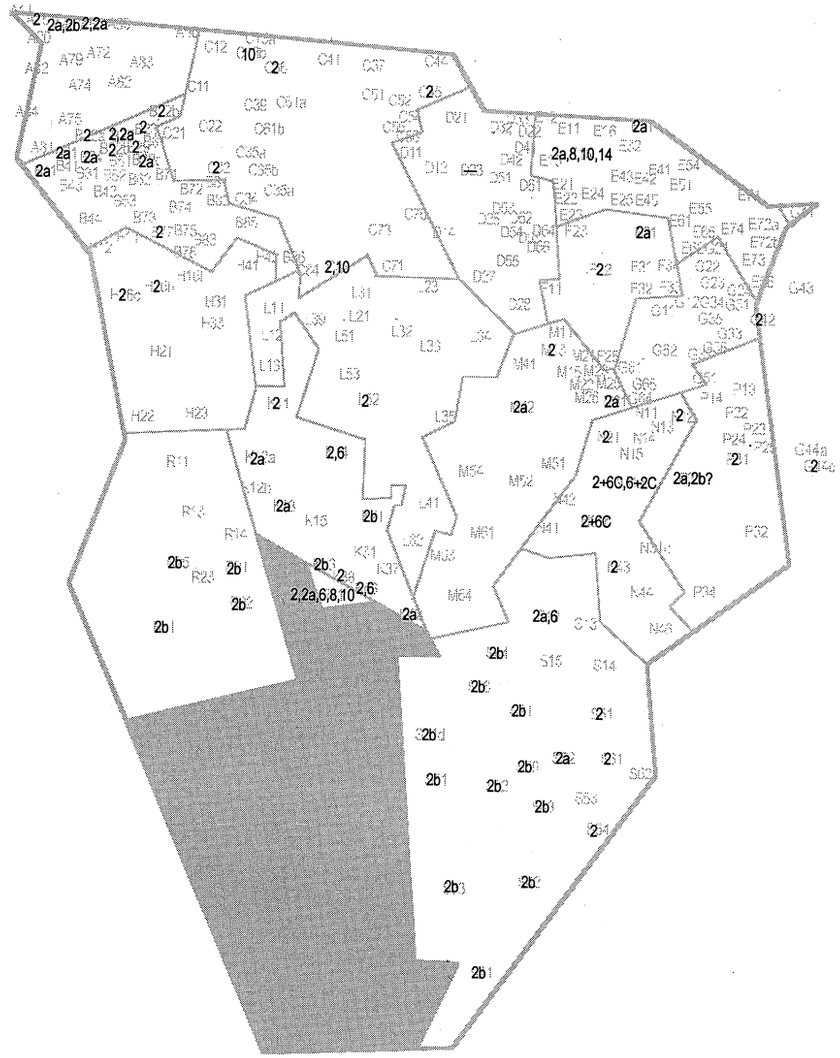



Figure 57 The distribution of plurals to subclass 1a
"C" = concords; "—" = claimed non-occurrence of class 1a.

explicitly, they are likely to exist also in Buja and Tio. Moreover, Guthrie's (1971) survey implicitly claims the existence of pairing 1/2 in these languages, in that he makes no explicit rejection of its absence (idem: 29).

The occurrence of pairings 1/4 and 1/6 can in some languages be explained by way of mergers (Toporova 1997: 60). The distribution of pairing 1/4 in the rainforest area (specifically zones B and C) is largely co-territorial with that of the 1=3 mergers (see figure 55). Thus in Lingala (C36), for instance, the full notation for pairings 1/2 and 1/4 should in fact be '1=3/4'. This is true for most rainforest languages with attested 1/4 pairings. The exceptions are Buja (C37), Bobangi (C32) and Sɛki (B21). For Buja, I have only the data that are extractable from Kadima (1969: passim), which is very fragmentary. For Bobangi, Kadima (1969: 88) claims a 1/4 pairing, something that I could find no evidence for in Whitehead's (1899) grammar. That leaves Sɛki as the only rainforest language (for which I have data) with an attested 1/4 pairing and an attested non-merger of classes 1 and 3. Outside the rainforest area, 1/4 pairings are also found in Isizulu (S42) and Tshivenda (S21), two languages that lie far away from the attested distribution of 1=3 mergers. Anyway, I return to the issue of 1=3 mergers when discussing pairings involving singular class 3 below.

As for the attested 1/6 pairings, some of these can be explained as resulting from 2=6 mergers (see figure 56). In Bolia (C35b), for instance, there is a pairing 1/2=6. This is likely to be true of other languages in zone C where the majority of attested 2=6 mergers are concentrated. (A 2=6 merger is also found in Umbundu (R11).) However, mergers cannot explain all occurrences of pairing 1/6, even though Yambasa (A62), Myɛnɛ (B11) and Vanuma (D33), where 1/6 (not 1/2=6) pairings are found, are close enough to the distribution of 2=6 mergers to possibly be explained as areal influences deriving from there. This cannot, however, be adduced as an explanation for Lwena (K14), Emakhuwa (P31), Isizulu (S42) and Tshivenda (S21). Interestingly, we may note a near-merger of classes 2 and 6 in Chinyanja (N31a) and Chichewa (N31b), both of which are located far away from the 2=6 distribution.

There are large formal similarities between classes 1 and 1a. For instance, both usually employ the same set of concords, though not without exceptions (see chapter 1). Also the plural of class 1a is formally similar, and often identical, to the common plural of class 1, that is, class 2. When it is not identical, it is often labelled either '2a' or '2b' (see figure 57). However, there is not a complete consistency in the literature as to how these sublabels are applied. I follow Welmers' (1973: 165) notation here and use '2a' when the plural of class 1a displays a low *a*-like vowel[104] and '2b' when it displays a back *o*-like vowel.

104 I include here also the prefixes *bɔ-* in Ngayaba (A54) and *bɛ-* in Wumvu (B24) and Sake (B25).



When need be, I refer to them jointly as '2x'. Their respective distributions are almost entirely complementary, as the distribution in figure 57 shows. One notable exception is Mbɛnɛ (A43), which displays two plurals for class 1a, with prefixes *ba-* and *bo-*, at least according to data extracted from the examples provided by Skolaster (1914: 745f). A potential but unlikely exception is Ciyao (P21). Richardson (1967: 380) lists both 2a and 2b for this language, but the distinction is presumably based on semantics, and is thus not a formal one; unfortunately, he gives no noun prefix or concords.[105]

### 4.2.2 The distribution of singular class 3 and its plurals

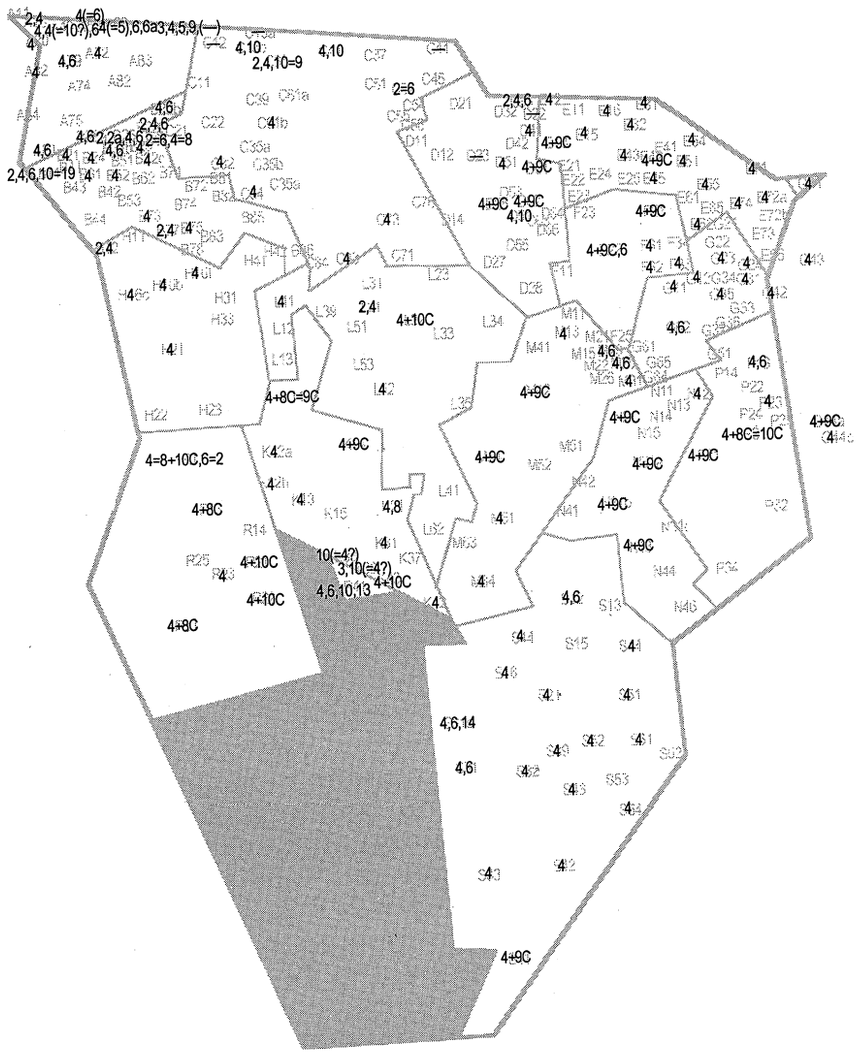
The distribution of pairings involving singular class 3 is mapped in figure 58. Pairing 3/4 is, like that of 1/2, maximally wide throughout the Bantu area. Interestingly, pairing 3/6 also has a wide distribution, though not maximally wide (nor is it in any sense dense). Many 3/2 pairings co-occur with 1=3 mergers. Thus in Ifumu (B77) and Vili (H12), the full notation for this pairing is really '1=3/2'. This is not true for Mbangwɛ̃ (B23) and Kota (B25); at least the data do not permit such an analysis. It seems fairly clear that the 1=3 mergers have resulted from the spread of 3/2 pairings, and not vice versa; at least their respective distribution would indicate this. There are other factors that support this, too, to which I return further below.

Some of the attested 3/6 pairings can, on the other hand, be accounted for by referral to mergers. In Mbete (B61), for instance, the full notation of the pairing in question is '3=14=15/2=6', which incidentally gives us a pairing 3/2 also. The 3=14 (figure 59) and 2=6 (figure 56) mergers are found also in Lombo (C54) and Umbundu (R11), and so also the pairing 3=14/2=6. However, most 3/6 pairings, like the one in Setswana (S31), cannot be explained as resulting from mergers. The distribution of pairing 3/6 is wide and looks rather spotty. It is possible to discern some kind of pattern, possibly a triple-distribution, with one concentration in the north-west which is fairly dense, one in the lower north-east and one in the upper south, to which we could add Siyeyi (R41). The last two distributions are much more spotty than the first, perhaps not even forming coherent distributions at all.

Specifically with regard to mergers and near-mergers involving classes 3 and 14, there is one particularly interesting observation to be made. In figure 59 it can be seen that full mergers involving these classes are found only in rainforest languages and Umbundu (R11) in the south-west. Outside the rainforest area, we find only near-mergers. I return to this further below.

An interesting pairing is that of 3/10. We find it in the rainforest area as well

105 Richardson's data derive from Whiteley (1961), a source which I have not been able to consult.


2,4
4(=6)
4,4(=10?),64(=5),6,6a3,4,5,9,(—)
4,6
4,10
2,4,10=9
4,10
2=6
2,4,6
4,6
2,4,6
4,6,2,2a,4,6,2=6,4=8
4,6
2,4,6,10=19
2,4
2,4
4+10C
4+8C=9C
4+9C
4=8+10C,6=2
4+8C
4+10C
4+10C
4+8C
10(=4?)
3,10(=4?)
4,6,10,13
4+10C
4,6,14
4,6
4+9C
4+9C
4+9C

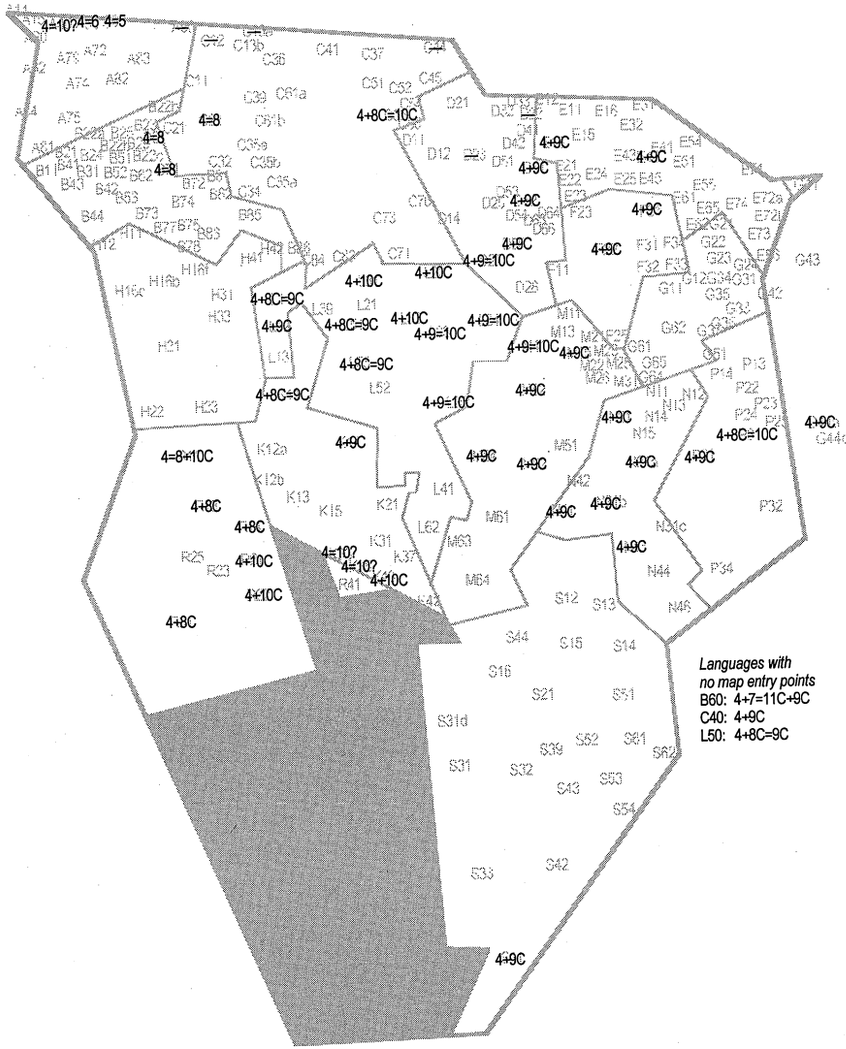



Figure 60 Mergers, near-mergers and non-occurrences involving class 4
"C" = concords; "—" = claimed non-occurrence of class 4.



as in the south-western languages Rukwangali (K33), Rugciriku (K38) and Siyeyi (R41). With the exception of Bembe (D54), these are all in the western Bantu area. Some of these occurrences are clearly derived from either 4=10 or 3=11 mergers (see figures 59 and 60). The recognition of a 3/10 pairing in Tùnɛn (A43) depends solely on whether or not one accepts Kadima's (1969: 115) claim of a 4=10 merger in this language. It is contradicted by Dugast (1971: 136+140f), who provides slightly different demonstrative and possessive forms for the classes in question (see also supplementary section A). In Rukwangali, there is likely to be a 4=10 merger. The plurals of classes 3, 9 and 11 are in any case identical. The noun prefix looks somewhat odd, however, having the form *no-*, while the concords are based on *di-*, as would be expected from a class 10 series. There is no trace of any *mi*-based class, the expected class 4 form (Dammann 1957: 8ff et passim). In Rugciriku, the situation is similar with the plurals of classes 3 and 9 being identical; and also here we find *di*-based concords (Möhlig 1967: 117ff). In the Ngamiland dialect of Siyeyi, we find both pairings 3/4 and 3/10, and thus no 4=10 merger (or even near-merger?). The latter pairing seems here to be derived from a more general use of class 10 as a plural class, since we also find pairings like 1/10, 5/10, 7/10, 9/10, 11/10, 12/10, 14/10 and 15/10 (Sommer & Vossen 1992: 13). In Bembe, the only non-western language with an attested 3/10 pairing, we find no mergers involving classes 3 or 4, but we do find the pairings 3/4, 3/10, 11/4 and 11/10 (Guthrie 1971: 43).

Most of the mergers and near-mergers involving classes 4 and 10 are attested in the central and south-western areas, seemingly concentrated in the confluence of zones D, L and M as well as southern and/or eastern parts of zones R and K (see figure 60). The single attested 4C=10C merger among the east coast languages, namely, Emakhuwa (P31), is probably best explained as an independent local innovation; I return to this further below. The same could be true for Lokele (C55), unless it can be tied to the central 4≈10 distribution.

One fairly well-demarcated distribution is that of 4C=9C mergers. It covers large parts of the central and eastern areas (disregarding a few outliers). It does not extend all the way to the eastern coast, for which reason its occurrence in Shingazidja (G44a), found on the Comoro Islands, looks partly odd. One clear mainland outlier is Isizulu (S42). Two more outliers are found in the rainforest area, though these are not visible in figure 60, since the languages in question, Ngwi (B60)[106] and Budya (C30), have not been assigned map entry points (see supplementary section B). Interestingly, there are no attested full mergers of classes 4 and 9, which presumably indicates a fairly recent phenomenon.

[106] In Ngwi, the full notation for the merger is '4+7=11C=9C', that is, a full merger involing classes 7 and 11 plus a near-merger involving classes 4, 7=11 and 9 (Kadima 1969: 112ff).

The distribution of full 4=8 mergers is partly co-territorial with that of full 2=6 mergers (compare with figure 56). This is perhaps not surprising if we assume that both mergers result from the same phonological change, namely, a loss of the *b~m* distinction (Guthrie 1967a: 348). However, only three languages have both 4=8 and 2=6 mergers, namely, Mbete (B61), Akwa (C22) and Umbundu (R11). If we also look at near-mergers involving classes 4 and 8, the full distribution of 4≈8 shows up as a western Bantu phenomenon. Emakhuwa (P31) seems to be the only non-western language showing a 4≈8 feature; I return to this further below.

### 4.2.3 The distribution of singular class 5 and its plurals

Pairing 5/6 is maximally wide throughout the Bantu area, all other pairings involving singular class 5 being more restricted (see figure 61). Pairing 5/4, for instance, seems to be an exclusively northern phenomenon, and pairing 5/2 is found almost exclusively in the rainforest area. Most of the 5/10 pairings occur in the rainforest area, while occurrences outside the rainforest area are attested for Siyeyi (R41), Sekgalagadi (S31d) and Sesotho (S33). As for Umbundu (R11), Guthrie (1971: 60) claims a 5/10 pairing as well as a merger of classes 4 and 8, and Kadima (1969: 112+115) claims a concordial merger of class 10 and merged class 4=8. However, while both the merger (4=8) and the near-merger (10+4=8C) are supported by Schadeberg's (1990: 10f et passim) sketchy grammar, Guthrie's claimed pairing 5/10 is not. Thus the hypothetical pairing 5/10+4=8C appears in parentheses with a question mark in figure 61.

An interesting double-distribution concerns mergers involving classes 5 and 11 (see figure 62). One distribution is found concentrated in the north-west, in zone B, and another one is concentrated in the south, specifically the southern part of zone S.[107] In addition, there is a near-merger involving these classes in Nyungwe (N43). It could be adduced that 5/10 pairings result from 5=11 mergers; thus we find both 5/10 pairings and 5=11 mergers in zone B. However, only a few languages have attested 5=11/10 pairings. Ndjabi (B52) has 5=11/10=9 while Ifumu (B77) has 5/9=10 and no attested class 11, which could indicate a former 5=11 merger. This could possibly also explain the 5/10 pairing in Sesotho (S33). In other languages, however, we find both 5/10 pairings and distinct classes 5 and 11, as in Sekgalagadi (S31d) and Siyeyi (R41). Anyway, I return to 5=11 mergers when discussing the distribution of pairings involving class 11 below.

A number of languages display two class 5 prefixes; at least there are many

[107] For eastern and northern dialects of Setswana, Cole (1955/1975: 91) says that "most or all nouns of this class [referring to pairing 11/10] have the singular prefix *le-* [class 5] instead of *lo-* [11], but usually retain the plural prefix *diN-* [10], though even this is frequently replaced by *ma-* [6]". Apparently, this phenomenon is in a process of spreading also to southern and central dialects (idem). "The indications are that ... [pairing 11/10] is gradually becoming obsolete" (idem).



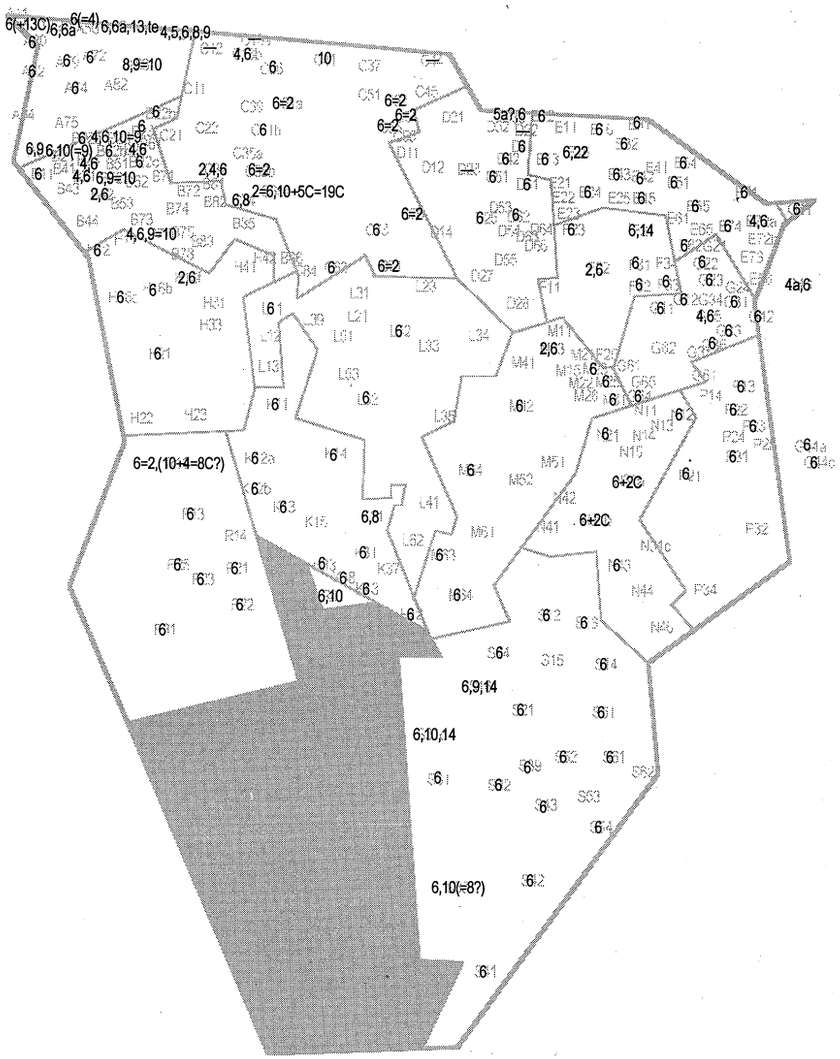



Figure 61 The distribution of plurals to class 5
"C" = concords; "—" = claimed non-occurrence of class 5.

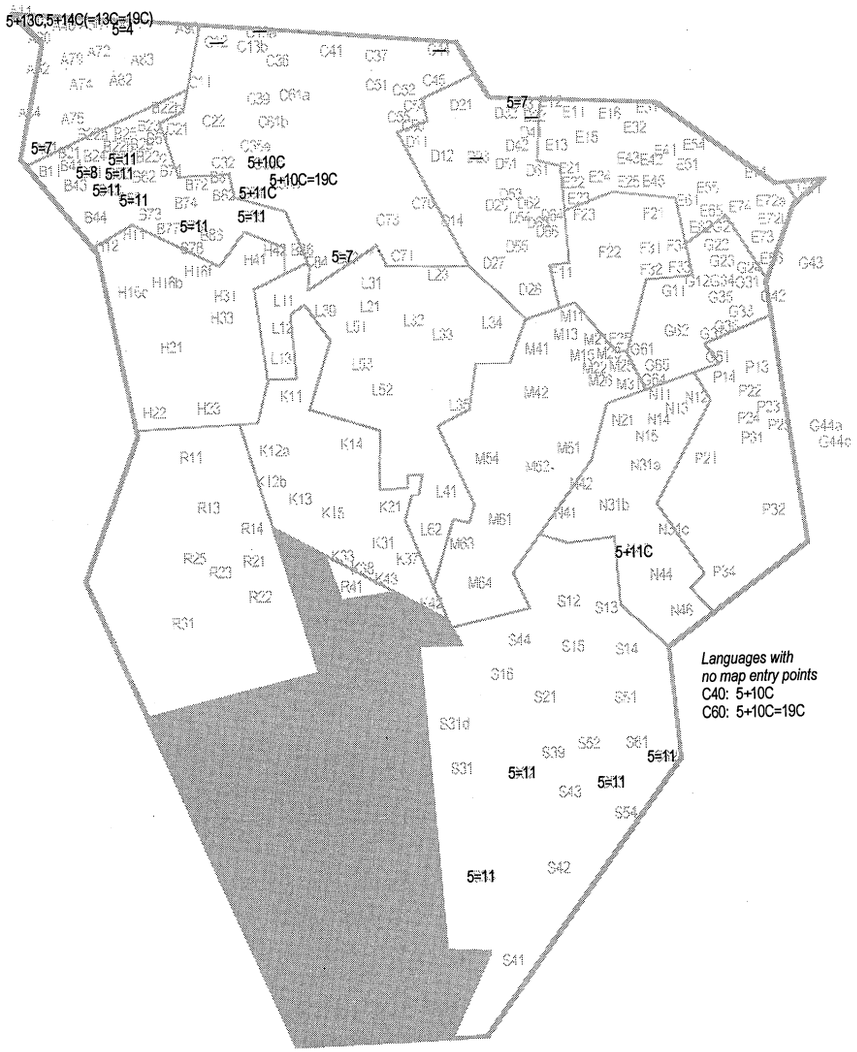



Figure 62 Mergers, near-mergers and non-occurrences involving class 5
"C" = concords; "–" = claimed non-occurrence of class 5.



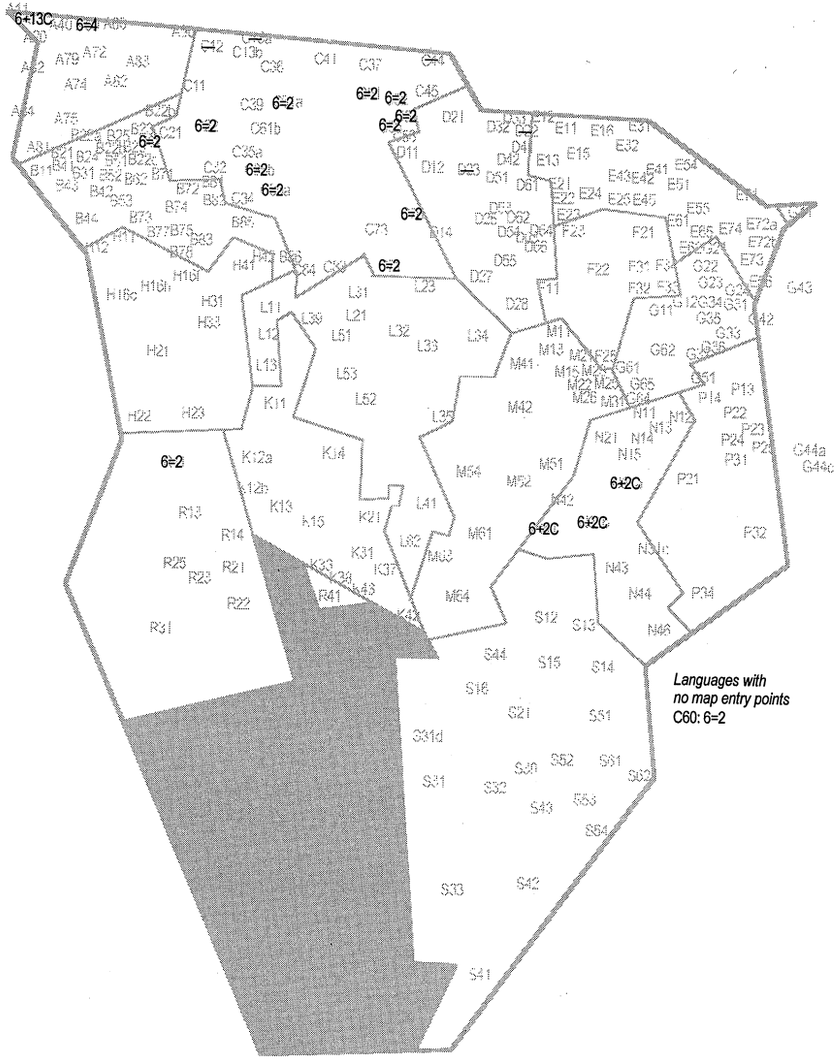



Figure 63 Mergers, near-mergers and non-occurrences involving class 6
"C" = concords; "—" = claimed non-occurrence of class 6.

grammar descriptions that use the BM number '5' for two classes, usually labelled '5' and '5a' respectively. Most of these languages are found in the eastern area, but there are a handful of rainforest occurrences as well. I return to this issue when discussing class 21 below.

As was mentioned in chapter 3, class 6 is often termed the 'liquid class', since it normally contains a number of words for liquids which show no singular form; grammatically, that is. I have not made any map for this phenomenon since it occurs in practically all Bantu languages with non-reduced noun class systems. One notable point, however, is the fact that some A40 and A60 languages display two separate class 6 prefixes, labelled '6' and '6a' respectively in figure 61 (see supplementary section A for the languages concerned). These are discussed more fully in chapter 5 below.

### 4.2.4 The distribution of singular class 7 and its plurals

Pairing 7/8 has a maximally wide distribution (see figure 64). Pairing 7/6 is fairly wide, but is lacking in the south-west as well as the eastern coast. Pairing 7/4 seems to be a western phenomenon. Some of the 7/4 pairings have clearly derived from 8=4 mergers; I return to this shortly.

Attested mergers and near-mergers involving class 7 are chiefly restricted to the rainforest area, as seen in figure 65. Interestingly, two occurrences involving classes 7 and 9 are found along the east coast, one in Emakhuwa (P31), with a 7C=9C merger, and one in Lomwe (P32), with a full merger 7=9. These are the only attested non-rainforest occurrences of mergers and near-mergers involving class 7. Another restricted distribution is that of mergers and near-mergers involving classes 8 and 9. It seems to be a typical western phenomenon, with at least one attested exception, namely, Kimatuumbi (P13), where we find a near-merger of class 8 and merged class 9=10. This I return to below, when discussing singular class 9.

When it comes to mergers and near-mergers involving class 8 (figure 66), we find an interesting east-west divide. Mergers and near-mergers involving classes 4 and 8 (mentioned above) are chiefly restricted to the western Bantu area, while mergers and near-mergers involving classes 8 and 10 are chiefly found in the eastern Bantu area. There are, however, four cases of overlap. In the western Bantu language Umbundu (R11), we find, besides a merged class 8=4, also a near-merger of this class and that of 10, which is notated '8=4+10C' in figure 66. In the eastern Bantu language Emakhuwa (P31), we find a near-merger of classes 4, 8 and 10, notated '8+4C=10C' in figure 66. A third overlap we find in Lokele (C55), which also displays a near-merger of classes 4, 8 and 10. None of these overlaps,



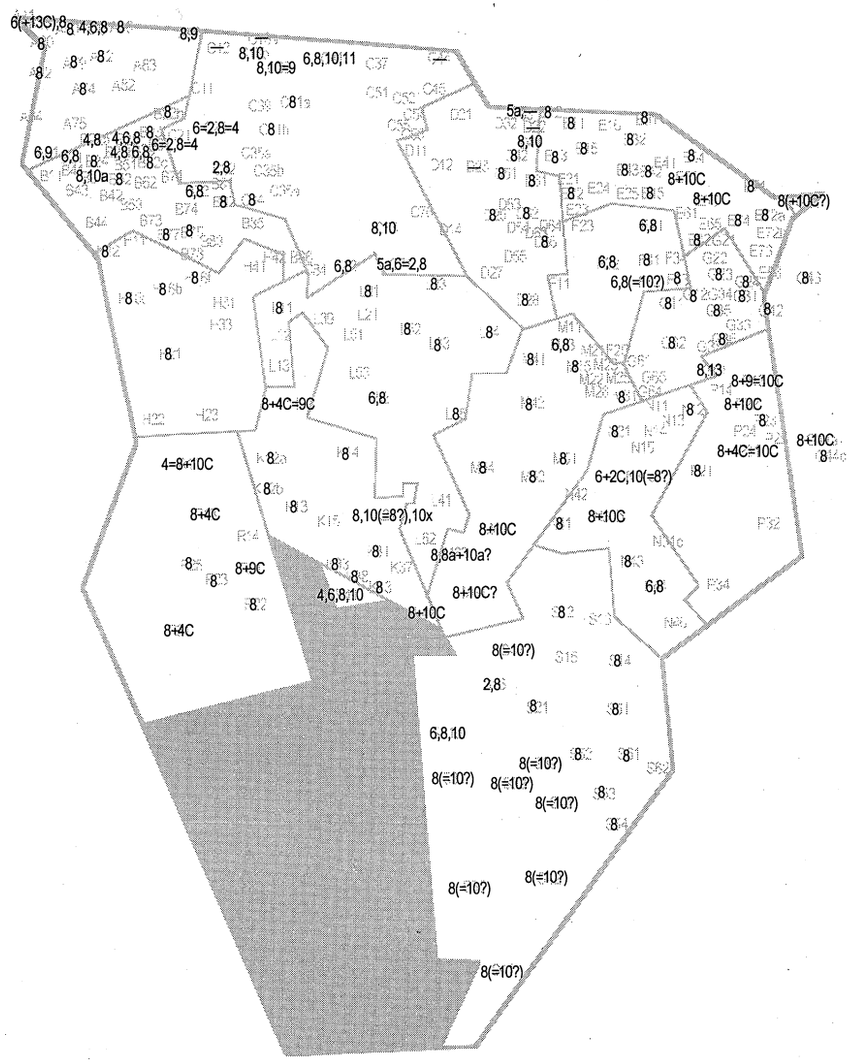



Figure 64 The distribution of plurals to class 7
"C" = concords; "—" = claimed non-occurrence of class 7.

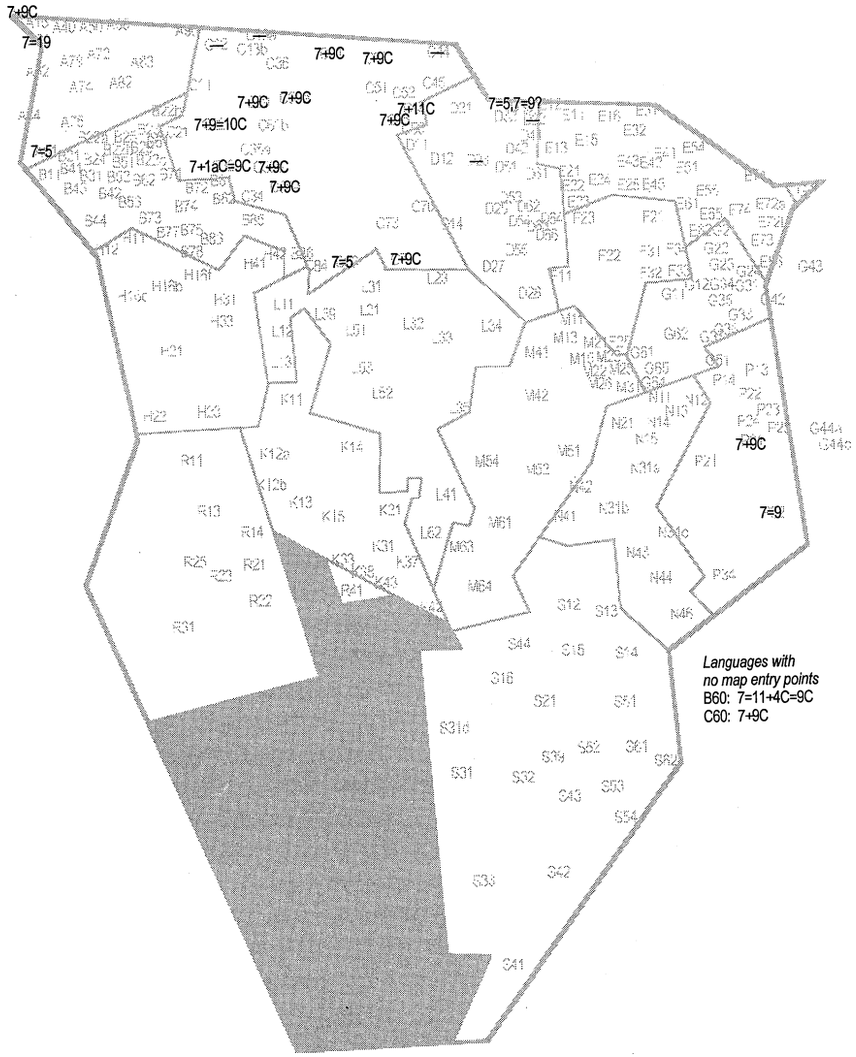



Figure 65 Mergers, near-mergers and non-occurrences involving class 7
"C" = concords; "—" = claimed non-occurrence of class 7.



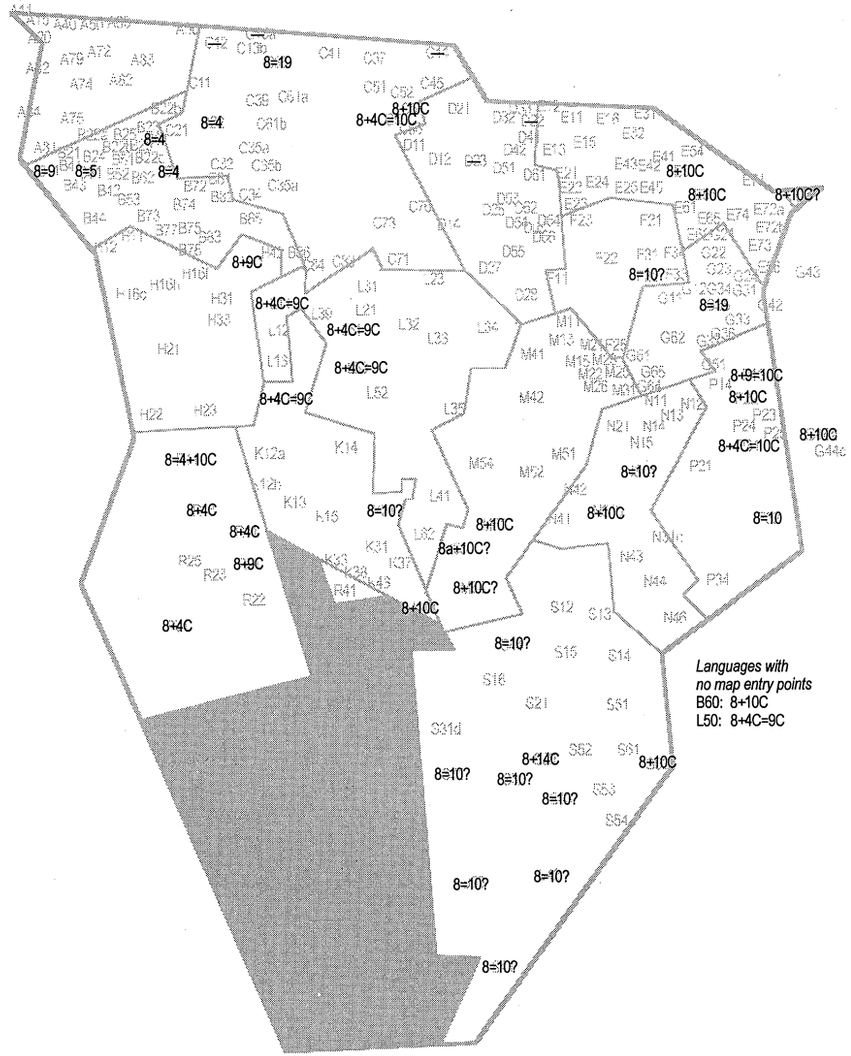



Figure 66 Mergers, near-mergers and non-occurrences involving class 8
"C" = concords; "—" = claimed non-occurrence of class 8.

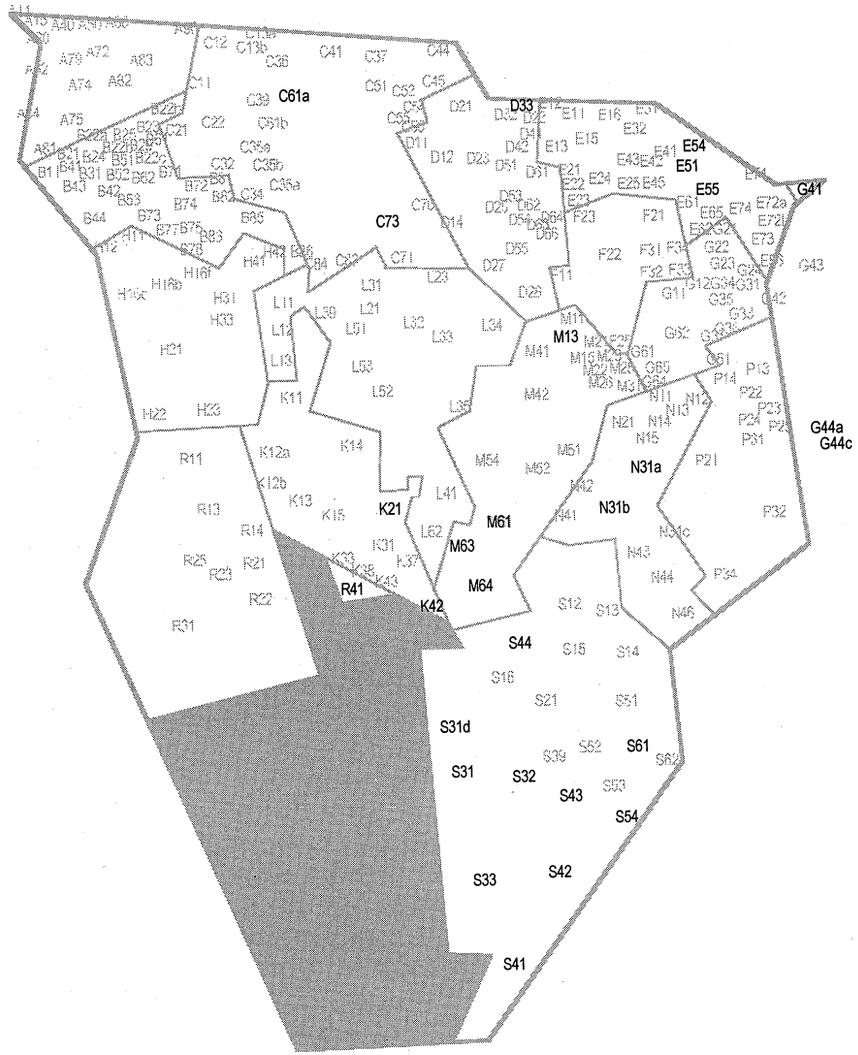



Figure 67 The distribution of prefixes labelled '8' with dental/alveolar consonants



however, seem to counter the proposition that 4≈8 is a typical western phenomenon, while that of 8≈10 is a typical eastern phenomenon. The overlaps can be explained as secondary developments; in Umbundu, for instance, a full merger has occurred only between classes 8 and 4. The fourth overlap looks more problematic. It is not visible in figure 66 since it concerns Ngwi (B60), a language with no map entry point (see supplementary section B). In Ngwi, there is a near-merger of classes 8 and 10. Since it is located in the western area, we might have expected class 4 to be involved here too, but it is not.

The 8≈10 distribution needs a few additional comments. Usually plural class 8 displays a labial consonant, as in Kiswahili (G42) where it has the form *vi-* (Perrott 1957: 6). Because of this, the Proto-Bantu form of the class 8 prefix is reconstructed as **βî-* by Meinhof (1932: 39) and **bi̯-* by Meeussen (1967: 97); see also Kadima (1969: 141ff). However, in a number of languages, we find a plural of class 7 which is not characterized by a labial consonant. Instead there are dental or alveolar consonants, as in Isizulu (S42) where we find *izi-* (Doke 1963a: 37). In these languages, the plural of class 7 is nonetheless often labelled '8'. The overwhelming majority of these are found in the eastern Bantu area (see figure 67). Cole (1967) draws attention to these "strange" dental/alveolar forms and argues that many classes which have traditionally been labelled '8' should be relabelled '10' instead. Thus he sees 7/10 pairings in languages where others would see 7/8 pairings. He supports his arguments with discussions of the sound changes involved.[108]

Specifically with regard to the southern Bantu area, where the plurals of classes 7 and 9 are virtually identical in most languages, Cole's line of reasoning is partly corroborated by Guthrie (1971: 113), but totally rejected by Kadima (1969: 144f). The latter adduces an explanation originally offered by Meinhof (1932: 64), namely, that the dental/alveolar class 8 forms have developed from original labials by way of analogy with class 10, a class which often displays a dental/alveolar consonant, either in the prefix or in its concords.[109] Thus the dental/alveolar plural classes are either 8=10 mergers or simply class 10, depending on whose explanation one relies on. Interestingly, the class labelled '8' in Mɔngɔ (C61a) displays two forms, *bi-* and *li-*, whose distributions seem to be complementary (see Hulstaert 1993). Accepting Cole's suggestion, we are left with a disappearing class

[108] The then current Proto-Bantu reconstructions showed the class 10 prefix as a composite prefix, namely, **lî-ni-* (Meinhof 1932: 39) and earlier **thin-* (Bleek 1869: 283). Cole (1967) identified the second part (the nasal) as the prefix of class 9 and the initial part as the true prefix of class 10.

[109] This he does despite the fact that Meinhof's argument is obviously circular, as Cole (1967: 124) rightly notes. Meinhof (1932: 64) first claims that the (would-be) class 8 prefix in Northern Sotho is *li-* instead of the expected *i̯i-* due to an analogy process based on its possessive concord (*tz'a-*) being similar to the possessive concord of class 10 (*tž'a-*). The noun prefix of class 10 is also *li-*. A few pages later, he states that the possessive concord of class 8 has the form it has, *tz'a*, because the prefix of class 8 is *li-* (idem: 67). (A few diacritics have been omitted here.)

8 in languages/dialects where we find the dental/alveolar forms, in which case we are forced to assume that it has either disappeared into thin air or merged with some other class. Something must, in any case, be assumed to have happened, and a morphophonologically restricted merger or analogy-change seems to me the most economical solution for many languages. Still, where I have found reason to accept Cole's arguments, I have done so. This is discussed with reference to individual languages in supplementary section A.[110] For many languages, I have amended any assumed merger with a questionmark in figure 66 and elsewhere, either as '8(=10?)' or '8=10?'.

In Silozi (K21), there is an interesting situation. This particular language, spoken in south-western Zambia, traces its historical roots to the southern Bantu area, from where the original speakers migrated during the nineteenth century.[111] Cole (1967: 128f) identifies three prefixes occurring on plurals of singular class 7 nouns, namely, *bi-* (defined as a class 8 prefix), *li-* and *zi-* (both defined as class 10 prefixes). The *bi*-prefix occurs regularly with secondary nouns (plural augmentatives) and infrequently on plurals of primary class 7 nouns, while both of the two dental/alveolar prefixes occur regularly on primary plural nouns. Cole reckons that the *li*-prefix is the original class 10 prefix in this language, while the *zi*-prefix (labelled '10x' by Cole) is assumed to be an areal influence from neighbouring languages. Also the *bi*-prefix is highly likely to be an areal influence, consideing that its infrequent use as a plural of primary class 7 nouns is restricted to nouns borrowed from neighbouring languages (Gowlett 1989: 134f). If we assume 8=10 mergers to be typical of the southern Bantu area, from where Silozi originates, then the correct etymological notation for the plurals of singular class 7 in Silozi should presumably be '8' for *bi-*, '8=10' for *li-* and '10' for *zi-* (with the first and the third being areal influences).

### 4.2.5 The distribution of singular class 8 and its plurals

An unusual and, it is assumed, innovative noun class feature is that of singular class 8. In a handful of rainforest languages, class 8 has developed into a singular class, with varying plurals. The attested distribution is given in figure 68. This is a very restricted phenomenon. It does not occur in the southern parts of the rainforest area, let alone outside it. It seems likely that the nouns concerned are mostly abstracts; at least this is true for Mpiemo (not a sampled language), which belongs to the A80 zone (Thornell 1998).

110 In Nyali,we find a plural class 5a in pairing 5=7/5a, thus labelled by Guthrie (1971: 43), with prefix *li-*, which seems odd. Guthrie also gives a class 8 prefix that has "skewed" to *di-* (idem).

111 Gowlett (1989) offers a good discussion of the history and development of Silozi.



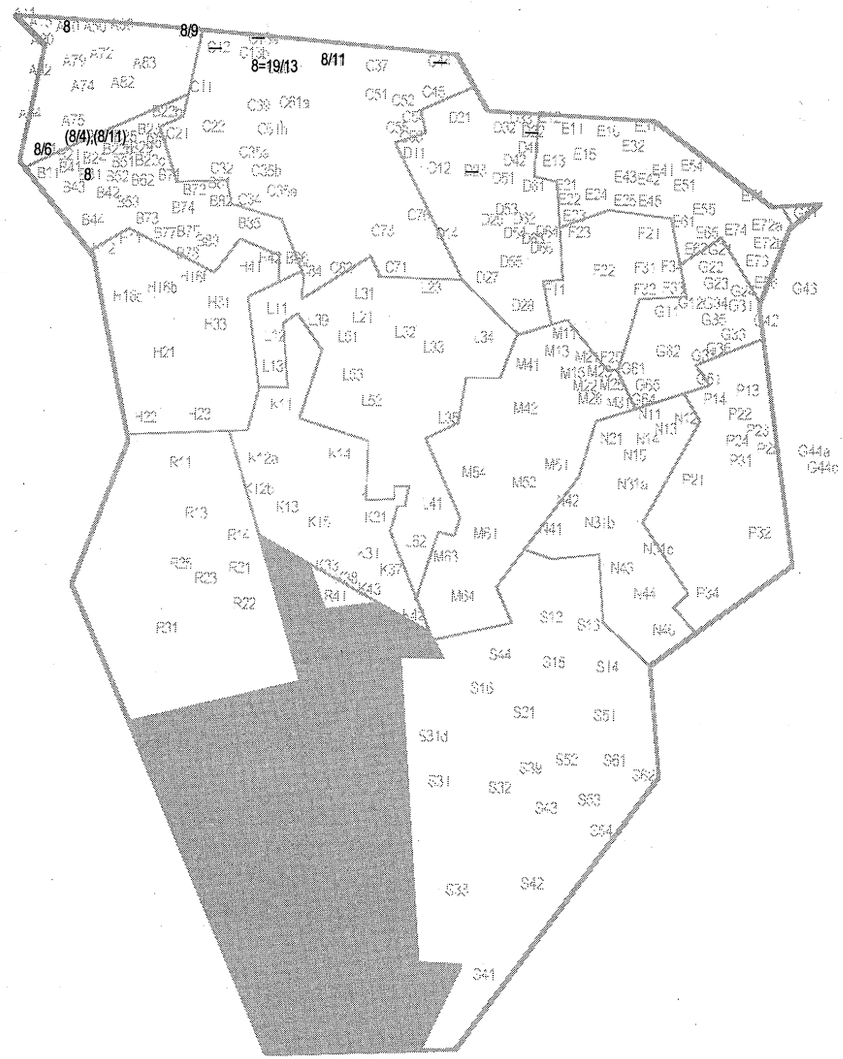



Figure 68 The distribution of pairings involving singular class 8
"—" = claimed non-occurrence of class 8.

### 4.2.6 The distribution of singular class 9 and its plurals

Pairing 9/10 has a maximally wide distribution, while that of 9/6 has a very wide and fairly dense distribution (see figure 69). In fact, the latter distribution covers all of the Bantu area except the south-western and extreme north-eastern parts. Pairing 9/2 is chiefly attested in the north-western and lower central areas, and also in Kanyok (L32); possibly all central occurrences belong together. In some eastern Bantu languages, pairing 9/8 has resulted from a merger of 8 and 10 (see above), while the 9/8 pairings found in the western Bantu languages Mbɛnɛ (A43), Kikongo (H16b) and Mbunda (K15) have not.

Mergers and near-mergers involving class 9 show several interesting distributions (see figure 70), for instance, the chiefly rainforest occurrence of 9≈7, and the central and eastern distribution of 9C=4C. Both of these have already been discussed above. A third interesting distribution of mergers and near-mergers involving class 9 is that of 9≈10. The distribution seems to be concentrated, firstly, in the north-west (stretching eastwards along the northern Bantu borderland) and, secondly, in the central area (chiefly zone L); possibly the occurrences in upper zone E belong together with the latter distribution. With a couple of exceptions, Angba (C45) and Luyana (K31), they are all full mergers. Due to the heavy central and north-western geographical bias of its distribution, its occurrence also in Kimatuumbi (P13), along the east coast, looks partly displaced.

### 4.2.7 The distribution of singular class 10 and its plurals

As just noted in the previous subsection, a number of languages have merged classes 9 and 10 (see figures 70 and 71). This is possibly also the reason why we find a number of languages with singular class 10, the distribution of which is mapped in figure 72. The majority of these languages are found in the rainforest area, with a handful outside it, the most "displaced" being Kimatuumbi (P13) along the eastern coast. There are at least five languages that exhibit the use of singular class 10 without any accompanying merger of classes 9 and 10 (indicated with underlining in figure 72). Together they form a double-distribution; one is found in the lower north-west and the other in the central south-west. Both distributions are very small, though. A discontinuous string of languages with singular 10=9 through zones L and B seems to connect both distributions.

The north-western distribution includes three languages of zone B. Jacquot (1983: 57) gives *ìkámbà* 'fait de parler' (Fr.) as a single class noun in Myɛnɛ (B11).[112] Apparently singular class 10 is used only for deverbal nouns (idem: 45).

[112] It should perhaps be noted that this is a merged class in Myɛnɛ, and thus the full notation here should be 10=19. This class is otherwise used as a plural class; see supplementary section A.



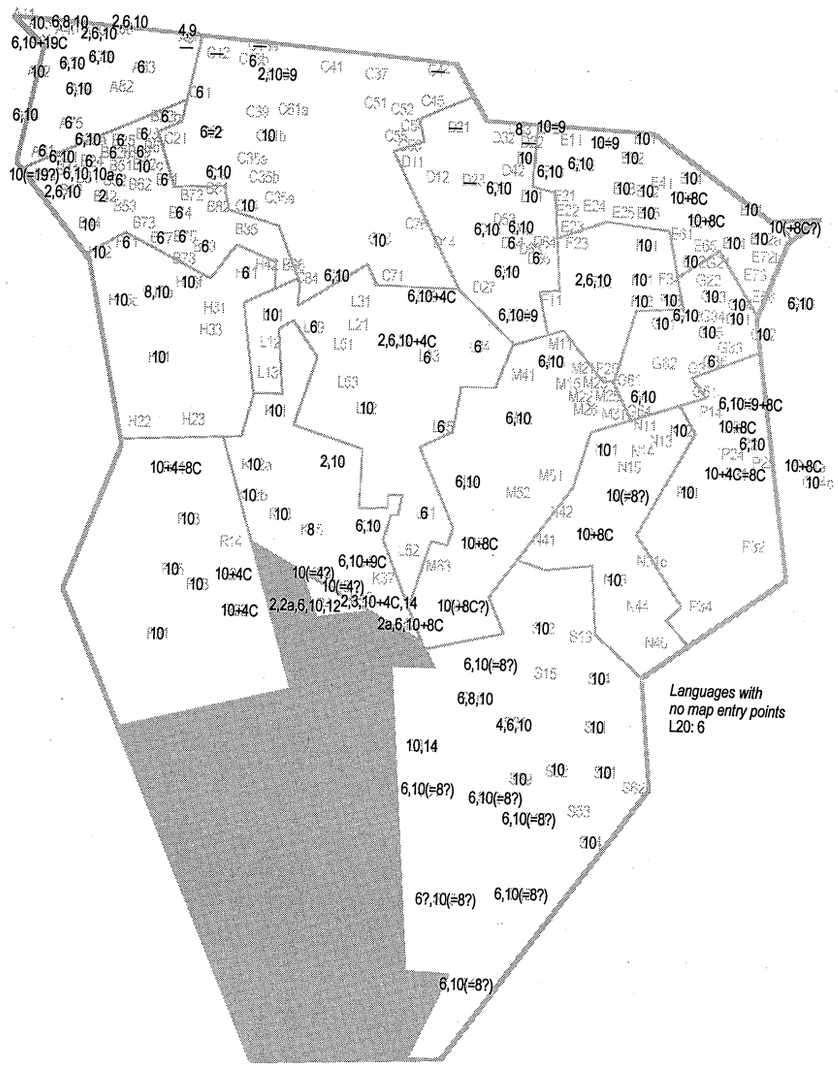



Figure 69 The distribution of plurals to class 9
"C" = concords; "—" = claimed non-occurrence of class 9.

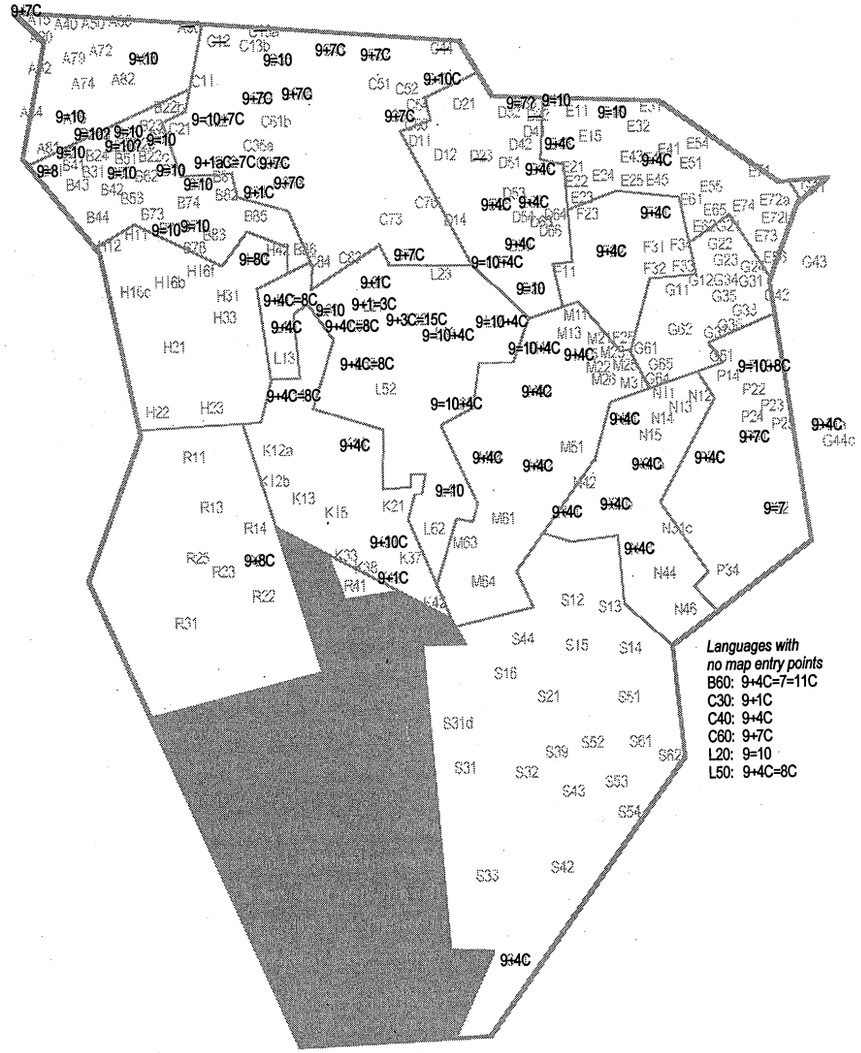



Figure 70 Mergers, near-mergers and non-occurrences involving class 9
"C" = concords; "—" = claimed non-occurrence of class 9.



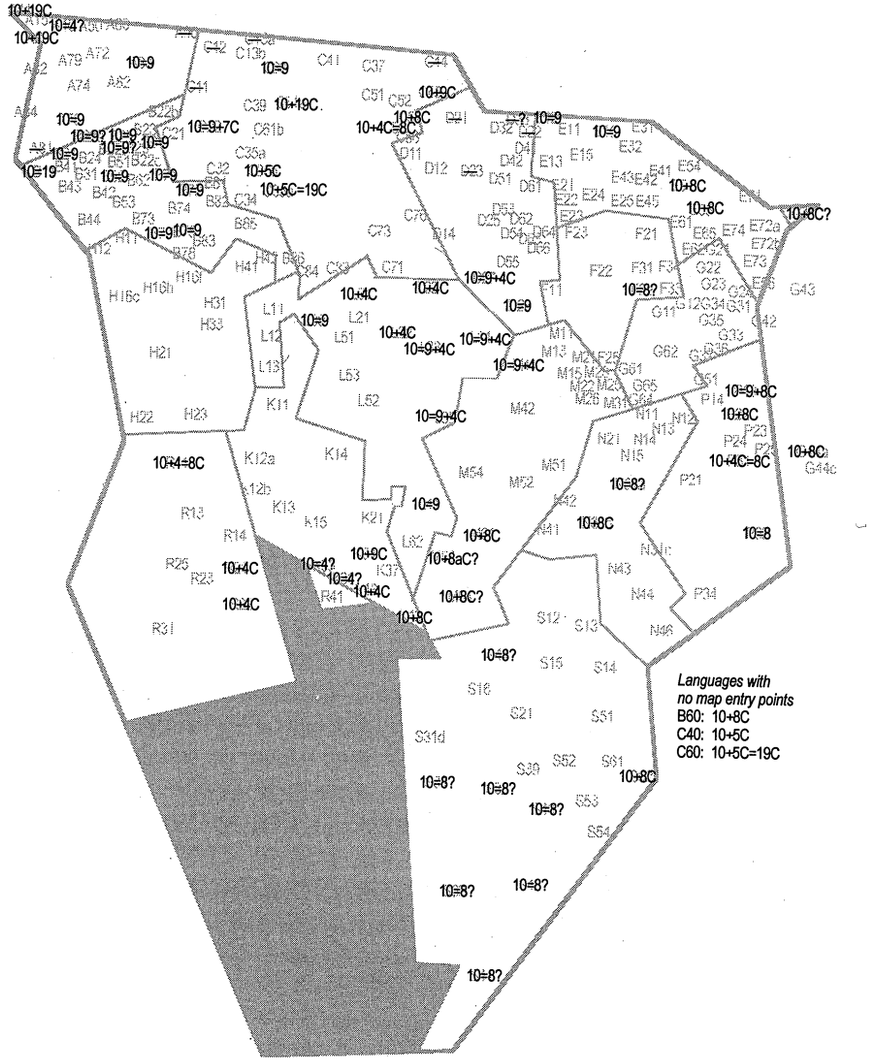



Figure 71 Mergers, near-mergers and non-occurrences involving class 10
"C" = concords; "—" = claimed non-occurrence of class 10.

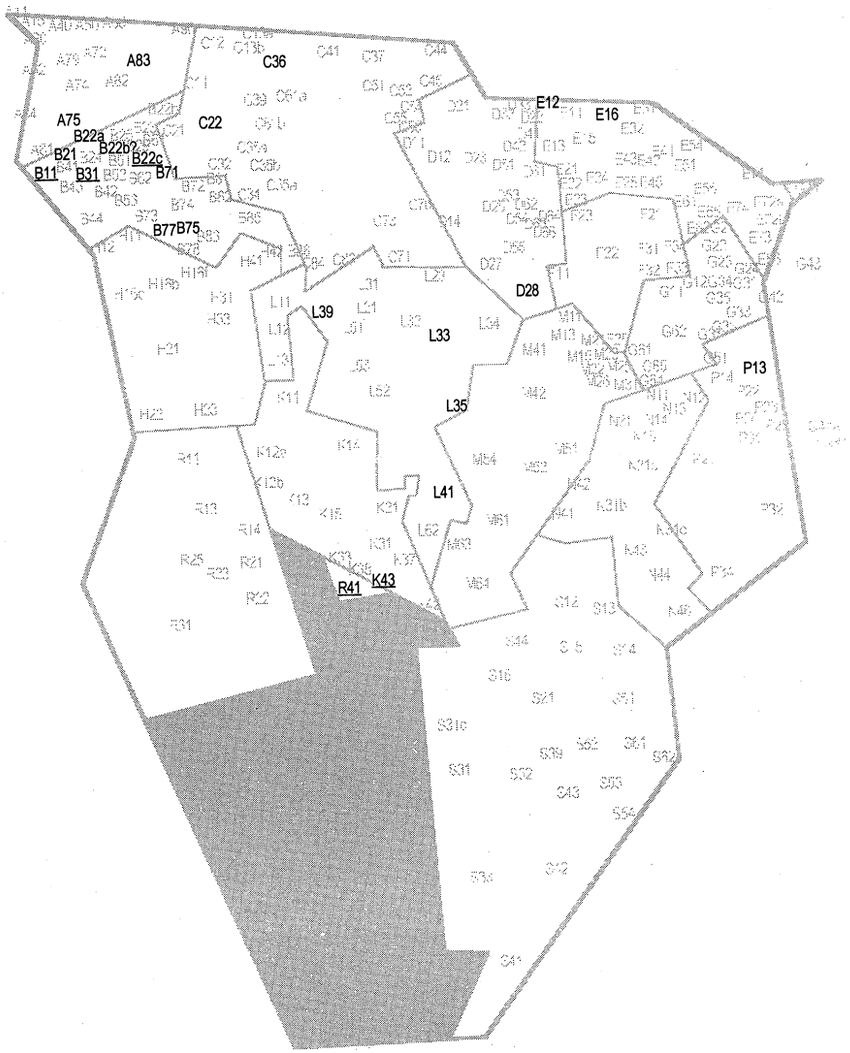



Figure 72 The distribution of singular class 10 and/or 9=10
Underlining indicates languages where classes 9 and 10 have *not* merged.



In Tsɔgɔ (B31) we find *nzínà* 'sang' (Fr.) as a singular noun only (idem: 330), and in Pußi (B22c) we find *dìwùú* 'houe' (Fr.), with plural *màwùú*, as a 10/6[113] noun (idem: 283).

The south-western distribution comprises only two languages, namely, the Caprivi dialect of Siyeyi (R41) and Thimbukushu (K43). With regard to the former, I have found only three singular class 10 nouns among the many examples used by Gowlett (1989) in his phonological study of the Caprivi dialect of Siyeyi, namely, *zìn.zhòzí/shwèzí* 'tear (from eye)', *zìn.shwèní* 'shame, shyness' and *zìn.dédzù* 'beard' (idem: 161+163). They are given as singular nouns only. As for Thimbukushu, my source uses no BM numbers, and thus I have assigned what I consider to be the most probable BM numbers for the noun classes she describes. Since she provides good tables for all concordial series, I have tabulated the relevant ones in figure 73.

| | NP | PRO | PC | SC (a) | SC (b) | OC | EC | RC (?) | AC |
|---|---|---|---|---|---|---|---|---|---|
| Pl 10 | *N* | *adho* | *dha-* | *dhi* | *dha* | *dhi* | ***dhi-*** | *dho-* | *dhi-* |
| Sg 10? | *(N)* | *adho* | *dha-* | *dhi* | *dha* | *dhi* | ***dho-*** | *dho-* | *dhi-* |

Figure 73 Two series of concords from Fisch 's (1977: 21) Thimbukushu grammar
The bold-printed concords are discussed in the text.

The first series of concords in this figure is the plural of class 9, and it shows all characteristics of being that of class 10.[114] The second set is a singular class (with plurals in class 6) and shows clear formal affinities with the first. The only difference between these two lines concerns concords used with numerals, that is, the *dhi-* and *dho-* under 'EC' in figure 73. However, the difference here is of little importance, since the singular concords are regularly distinguished in Thimbukushu with a formative *-o-* following the concord (idem: 71). Thus the singular *dho-* is presumably best analysed as composite of *dh(i)-* and *-o-*.

The type of class 10 nouns found in Thimbukushu (K43) are both single nouns and such that occur in the pairing 10/6.[115] In contrast to the north-western languages, there seems to be quite a number of singular class 10 nouns in Thimbukushu. Fisch (1977: 33) lists thirty paired nouns, such as *ndunda* 'Rundhütte' (Ger.) and *moko* 'Messer' (Ger.), and nineteen nouns which can occur

[113] Jacquot (1983: 184) gives two class 10 prefixes for Myɛnɛ, *ø-* and *di-*. Judging from his examples (idem: 283), *ø-* (or perhaps it should be *(N)-*?) occurs only with plural 9/10 and 11/10 nouns, while *di-* occurs with the one exemplified singular 10/6 noun as well as some of the plural 11/10 nouns, like *dyómbò* 'chants' (plural of *ómbò*).

[114] The full notation for class 10 in Thimbukushu is '10+4C'. I have taken the liberty to ignore this at present.

[115] Pairing 10/6 is denoted "6. Nominalklasse" by Fisch (1977: 33).

in singular only, such as *ndhi* 'Fliegen' (Ger.), *ndhara* 'Hunger' (Ger.) and *honyi* 'Scham' (Ger.).

### 4.2.8 The distribution of singular class 11 and its plurals

The two widest distributions involving singular class 11 are those of 11/6 and 11/10 (see figure 74).[116] The distribution of 11/10 looks more dense than that of 11/6, and had it not been for the complete lack of pairing 11/10 and the almost complete lack of pairing 11/6 in the extreme north-west, specificaly zone A, we could have defined their distributions as maximally wide. In the extreme north-west, we find a number of pairings involving singular class 11, among which 11/13 sems very interesting. It seems to be an exclusively western phenomenon. However, its distribution looks very spotty. Another interesting distribution is attested by 11/4. Disregarding its occurrence in Siyeyi (R41), it has a clearly northern distribution, though lacking in the extreme north-east, specifically zone E. In this particular zone, we find all but one occurrence of pairing 11/14, the exception being Tshivenda (S21).

There seem to be two distributions of attested absence of class 11.[117] The extreme north-west together with the central north seem to constitute a single distribution (or maybe not). The central part of the eastern coast (zones N and P) forms another. Interestingly, both distributions are fairly close to attested distributions of mergers and near-mergers involving class 11 (see figure 75), for instance, we find a 11≈3 distribution in the north-west among attested absence of class 11. Possibly this could be taken as indicative of previous 11=3 mergers in the north-western languages with attested absence of class 11. Along the eastern coast, we find a northern 11≈14 distribution and a southern 11≈5 distribution. The latter two distributions are not, however, continuous with the loss-distribution, which lies in between these two merger-distributions.

In a number of languages of zone B (north-west) and zone S (south), we find two major distributions of class 11 prefixes with front *i*-like vowels; most other languages display a back *u*-like vowel.[118] Thus in, for instance, Cicopi (S61) the class 11 prefix is *li-* (Doke 1954: 232) while in Icibemba (M42) it is *ulu-* (Van Sambeek 1955: 13). The distribution of the *li*-like class 11 prefixes is partly co-territorial with the distribution of full mergers involving classes 11 and 5. In fact,

116 Class 11 is marginally also used as a plural class. As such, we find it in Western Kɛlɛ (B22a) in the pairing 8/11, at least according to Guthrie (1971: 34). This is not supported by Jacquot (1983: 199ff). Another use of plural class 11 is found in Ngɔmbɛ (C41), where we find it in pairings 7+9C/11 and 8/11, according to Kadima (1969: 90).

117 Kadima (1969: 92) claims that pairing 11/6 exists in Mbɛnɛ (A43), while Guthrie (1971: 31) claims a non-existence of class 11 for the same language. Dimmendaal (1988: 32) makes the same claim as Guthrie, and seems to imply a merger of classes 11, 14 and 15.

118 In zone B, there are also class 11 prefixes with low *a*-like vowels; see Grégoire (1994) on these.



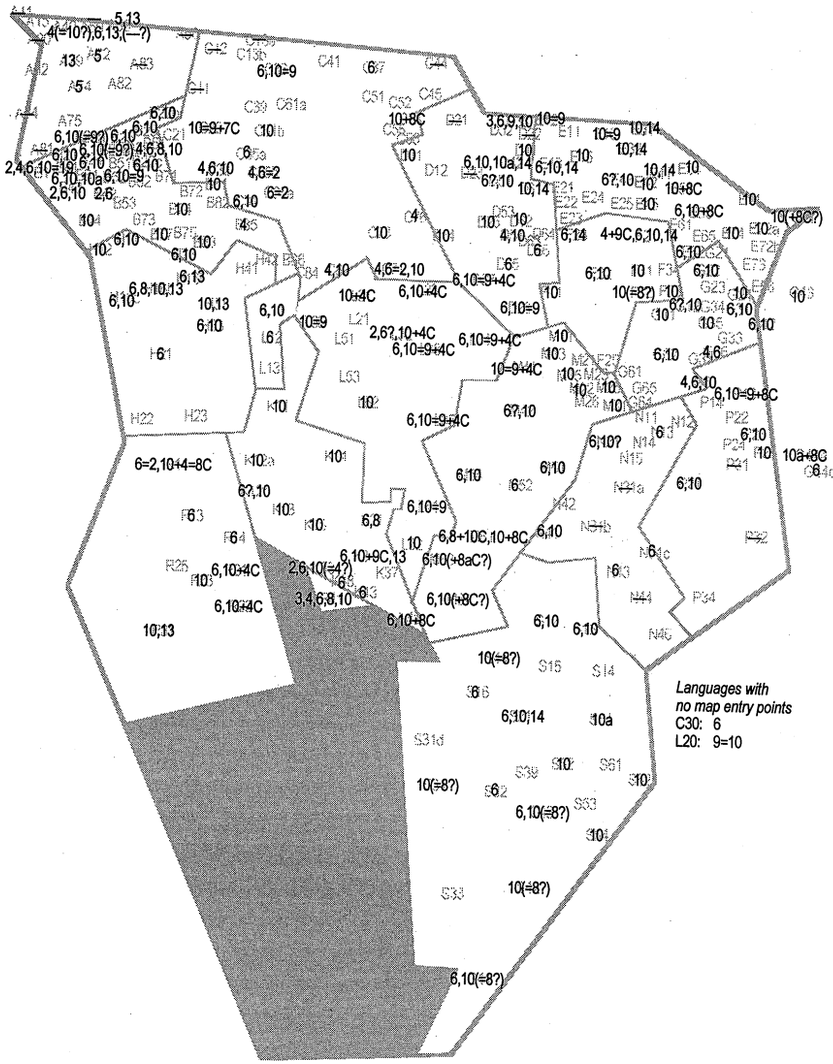



Figure 74 The distribution of plurals to class 11
"C" = concords; "—" = claimed non-occurrence of class 11.

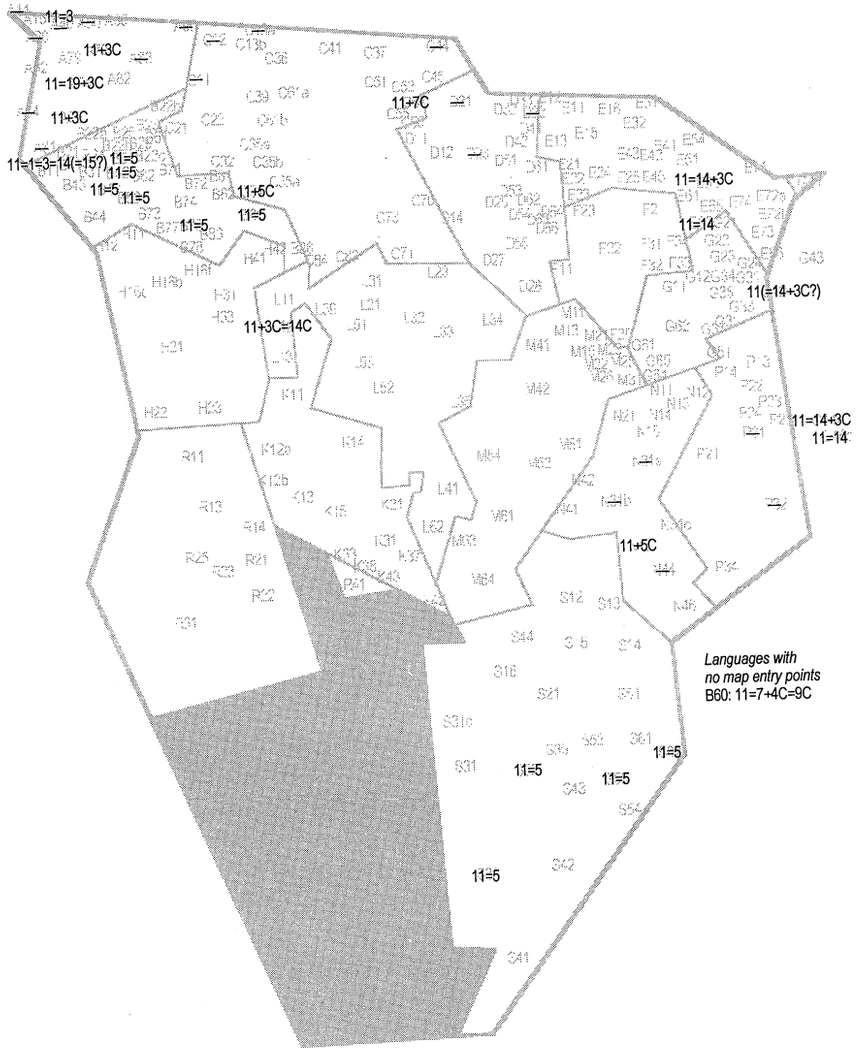



Figure 75 Mergers, near-mergers and non-occurrences involving class 11
"C" = concords; "—" = claimed non-occurrence of class 11.



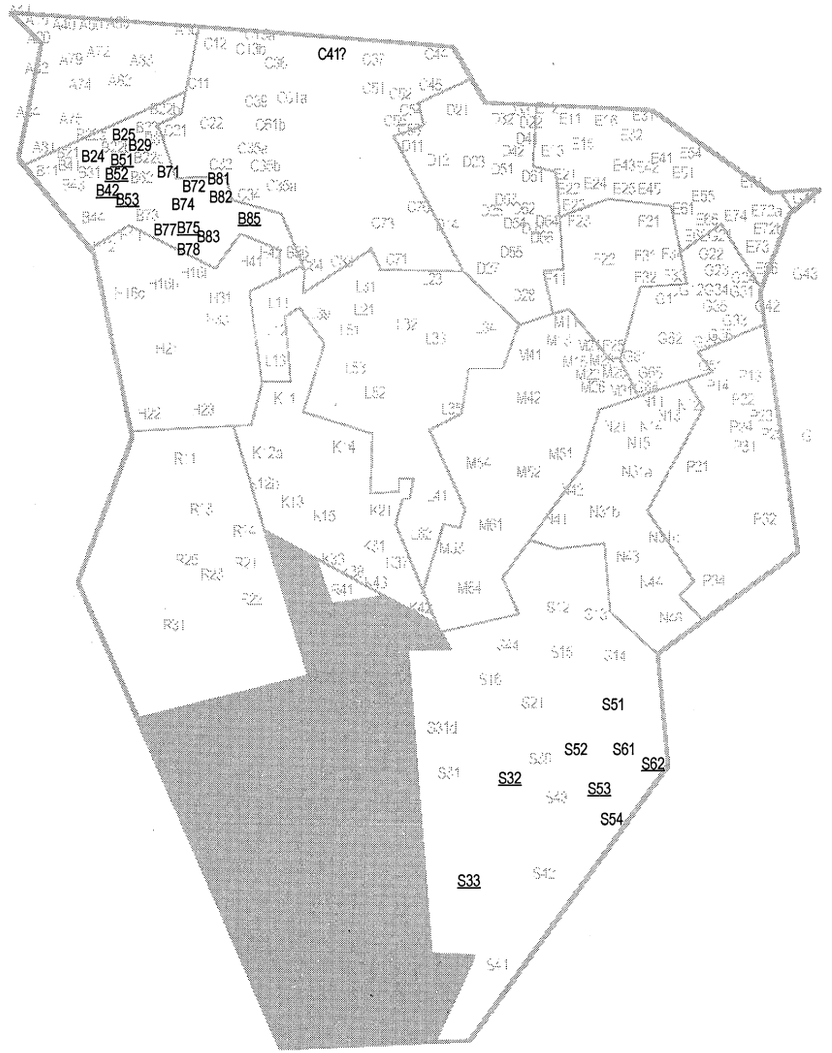



Figure 76 The distribution of *li*-like class 11 prefixes and full 11=5 mergers
Underlining indicates languages with attested full mergers of classes 11 and 5.

the former distribution is fully overlapped by the latter, as seen in figure 76. The reason for this is simple. The merger of classes 5 and 11 is commonly assumed to have come about due to a confusion of the vowels *i* and *u*; see, for instance, Guthrie (1967a: 348). The Proto-Bantu forms for the prefixes of classes 5 and 11 are reconstructed as **li-* and **lu-*, respectively, by Meinhof (1932: 39). Thus one might assume that the *li*-like class 11 prefixes in languages with no 11=5 merger are the results of incomplete mergers, or simply areal influences.[119]

Mergers and near-mergers involving classes 11 and 14 are, with the exception of Holu (L21), clearly restricted to the northern parts of the eastern Bantu area. The information regarding a possible 11=14 merger in Kiswahili (G42) is somewhat contradictory. In most grammar descriptions of Kiswahili, classes 11 and 14 are never distinguished. Thus 11=14 merger is usually assumed. Perrott (1957: 21ff) makes no distinction at all, and neither do Lodhi & Otterbrandt (1987: 13) in their brief grammar overview. Ashton (1947: 108), though making a formal distinction, nevertheless treats them jointly. The noun prefix the same for both putative classes (*u-*) and so are the subject and object concords (also *u-*). The adjective concord "is generally *m-* before consonants and *mw-* before vowels, though *u-* is sometimes used in reference to abstract nouns" (idem: 108; see also Amidu 1997: 79ff). Whether "sometimes" means that the *u*-concord is an alternative form to *m-* or obligatorily used with certain abstract nouns is unfortunately left unexplained. Whatever the case may be, a small trace of a former class 14 concord seems still to be in use, although perhaps only marginally, wherefore I have amended the merger notation with a question mark in the relevant figures. Still, even if we were to disregard its occurrence in Kiswahili, that would not alter the distribution of 11=14 mergers much, but perhaps only make it less clear.[120]

As for the occurrence of a 11C=14C merger in Holu (L12), which lies far away from the other 11≈14 occurrences, it can be explained as the result of two mergers typical of the area. As was noted above, we find many 3C=14C mergers in this area (recall figure 59), but we also find an 3≈11 distribution in the north-west. Possibly Holu has been influenced by both these mergers/near-mergers. Thus adding 3C=11C from the north-west with 11C=14C, we get 3C=11C=14C. Unless they are independent innovations, this begs the question of how Holu came to be influenced by the north-western 3≈11 distribution in the first place.

### 4.2.9 The distribution of singular class 12 and its plurals

There are no pairings involving class 12 that show maximally wide distributions,

119 The (possible) *li*-like class 11 prefix in Ngombe (C41) is ignored here. I return to it further below.

120 There are in any case bound to be dialectal differences involved here. Nurse & Hinnebusch (1993: 338+345; see also pp 349ff), for instance, assume a 11=14 merger for most dialects of Kiswahili.



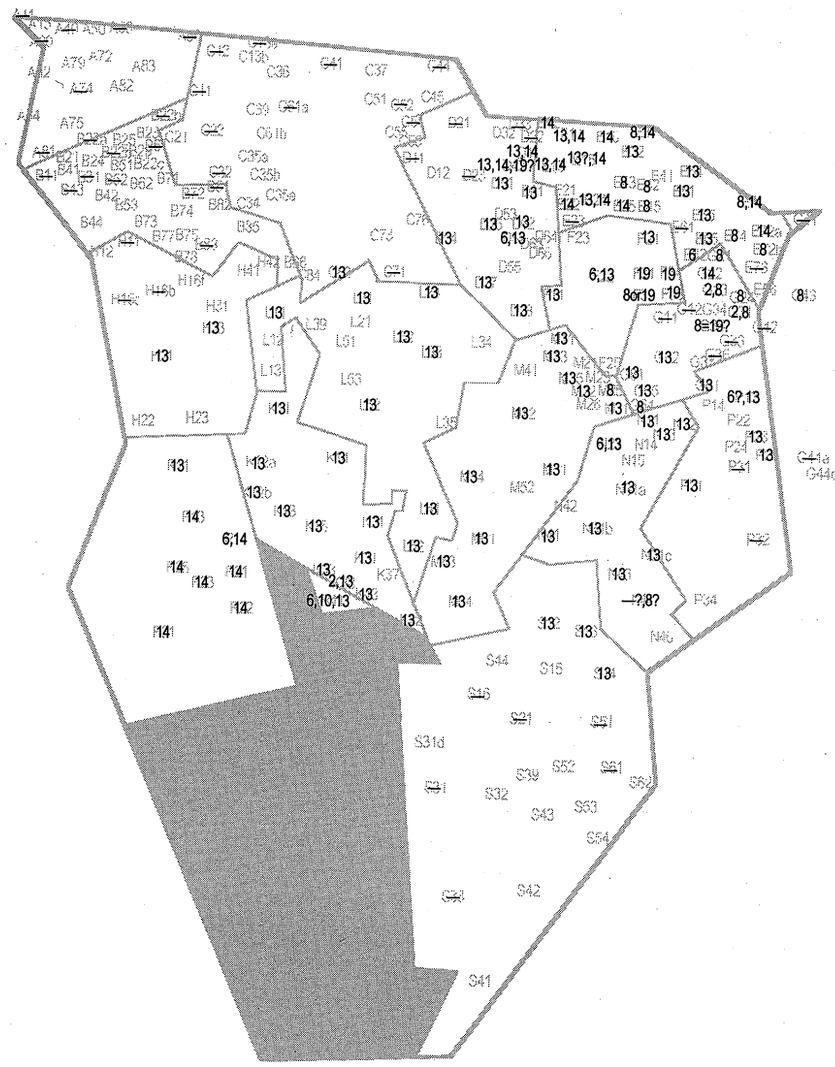


Figure 77 The distribution of plurals to class 12
"—" = claimed non-occurrence of class 12.

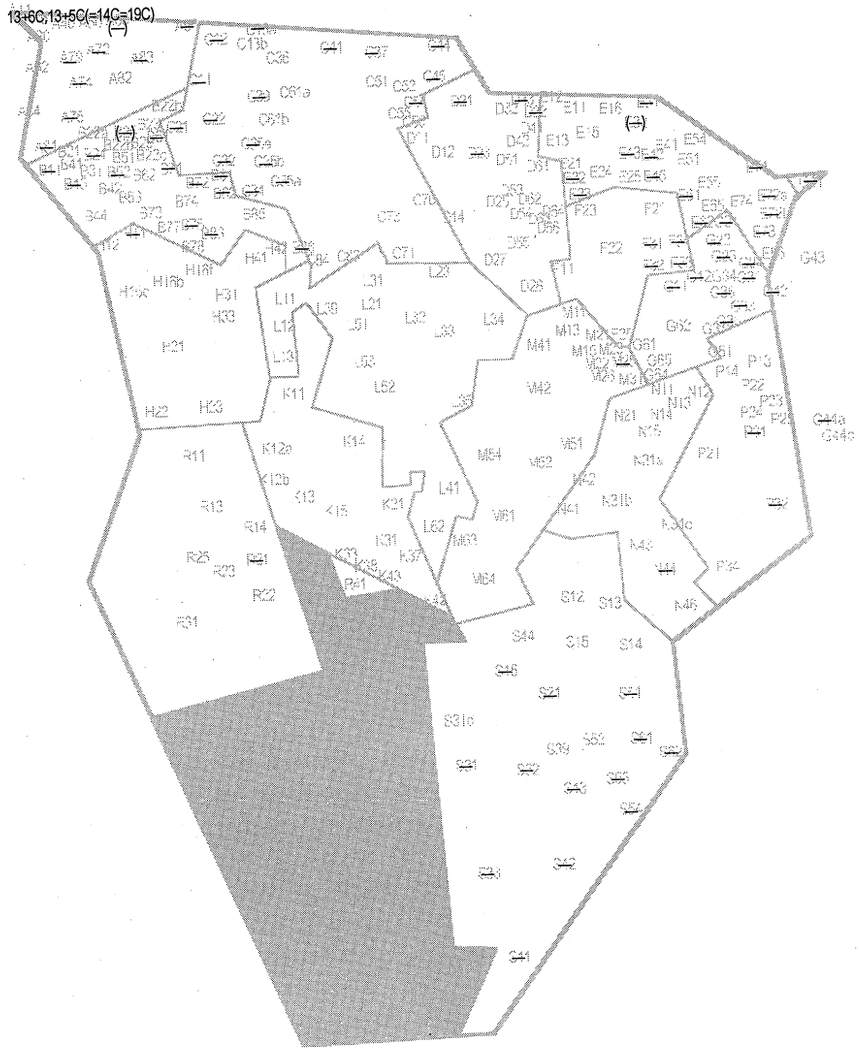



Figure 78 Mergers, near-mergers and non-occurrences involving class 13
"C" = concords; "—" = claimed non-occurrence of class 13.



simply because singular class 12 has a restricted distribution (see figure 77). All occurrences of singular class 12 occur in a belt stretching from the north-eastern area through the central area to the south-west. Guthrie's (1967a: 346) characterization of its distribution as "rather sporadic" is clearly misinformative, as figure 77 makes clear. The most common pairing involving singular class 12 is 12/13, found all across the area in question. Pairing 12/8 is found exclusively in the north-east. Kadima (1969: 153) claims the existence of pairing 12/8 in Sena (N44), while Guthrie (1971: 59) claims an absence of class 12. As for Ruguru (G35), Guthrie (1971: 49) gives a non-labelled "extraneous class" with prefix *ila-* in the pairing *ila*/8=19, used for diminutive purposes. I assume that this *ila*-prefix is that of class 12, even though it looks odd since there are no other attested class 12 prefixes with liquids. Pairing 12/14 shows an interesting double-distribution, being concentrated at opposite ends in the north-east and the south-west, specifically zones E and R. Pairing 12/6 has a similar double-distribution being concentrated in the same areas, though not the same languages.

Pairing 12/19 in found in Nilyamba (F31), Langi (F33) and Mbugwe (F34). As for Remi (F32), there is some uncertainty as to the actual pairing. Tucker & Bryan (1957: 37) give a pairing involving singular class 12 in which the plural class has been left unlabelled, and which displays an *ipi*-prefix. In their analysis it cannot be that of class 8 since that is already given with an *i*-prefix as plural of class 7. However, Cole (1967: 131) claims that pairing 7/8 in this language should be redefined as that of 7/10 instead, due to the identicality between the plurals of classes 7 and 9. If we accept this, the plural class in the 12/*ipi* pairing identified by Tucker & Bryan could well be that of 8. Also Cole recognizes a 12/8 pairing in this language, though he gives it with a *βi*-prefix (Cole 1967: 131); see also Guthrie (1971: 48), who gives it as *vi-*.

Interestingly, there are no claimed mergers involving class 12. At least, there are no such claims in the main sources that I have used. Grégoire (1994: 32), however, discusses a few mergers involving classes 7 and 12 in some north-western languages of zone B20. I have ignored this in my distributional maps since she does not specify the languages involved. There are, in any case, many attested non-occurrences of class 12, which indicates prior mergers or losses. Guthrie (1967b: 95), however, assumes that both classes 12 and 13 arose late in the Proto-Bantu period, something that I will disagree with in the next chapter. Until then, however, it may suffice to note that the distribution of class 12 forms a very coherent and *non*-discontinuous belt, something that indeed would suggest that its distribution is a fairly recent phenomenon. We do find, however, in the southern Bantu area, a remnant morpheme of a former class 12 concord used as an

adverbializer.[121]

The absence of class 13 is attested in quite a number of languages, but there are virtually no attested mergers involving class 13 (see figure 78), Manenguba (A15) being an exception. It displays a number of near-mergers involving class 13 (Hedinger 1987: 101). The attested non-occurrences are concentrated in the north-west, north-east and south-east. Moreover, the phonological forms of class 13 prefixes in some north-western languages, specifically zones A and B, display front *i*-like vowels instead of the more common back *u*-like vowels; this is also true for Chinyanja (N31a), Chichewa (N31b) and Manganja (N31c). All reconstructions of the Proto-Bantu class 13 prefix display a back vowel; for instance, **tu-* is reconstructed by Bleek (1869: 282ff), Meinhof (1932: 39) and Meeussen (1967: 97), while Guthrie (1971: 9) reconstructs **tọ-* with a slightly lower vowel than the others. Interestingly, De Wolf (1971: 51f) reconstructs an earlier Proto-Benuẹ-Congo form for this prefix displaying a front vowel, **ti-*. Thus somewhere along the line, before Proto-Bantu times, an original *i*-vowel must be assumed to have changed into an *u*-vowel.[122] This would also mean that in some languages of the north-west and the east, a kind of return-process must have occurred, that is, one that changed the *u*-vowel back into an *i*-vowel. Another possibility, which at first sight seems more economical, is to recognize that a **ti-*form existed in Proto-Bantu, either instead of or together with a **tu-*form. If we do accept this, the *ti*-likẹ forms found in zones A and B could be explained as retentions, not innovations. The N30 languages may be more difficult to explain as retentions due to their location.

A further potential modern reflex of this putative **ti-*form can be found in Ngɔmbɛ (C41), a language for which Kadima (1969: 90) gives pairings 7+9C/11 and 8/11. These are exemplified with *ika* 'chose' (Fr.), with plural *lika*, and *bisa* 'bois de chauffage' (Fr.), with plural *lisa*, respectively. Although the examples clearly suggest that a *li-*prefix is used in these examples, Kadima does not explicitly claim that the class 11 prefix has a *li-*form in Ngɔmbɛ (idem: 68). Considering that class 11 is only rarely used as a plural class, this particular *li-*prefix could possibly be analysed as a reflex of an earlier class 13 **ti-*form. As such, it would in fact conform to Guthrie's (1971: 40) claimed sound law **t > l* for Ngɔmbɛ. However, this is mere speculation on my part.

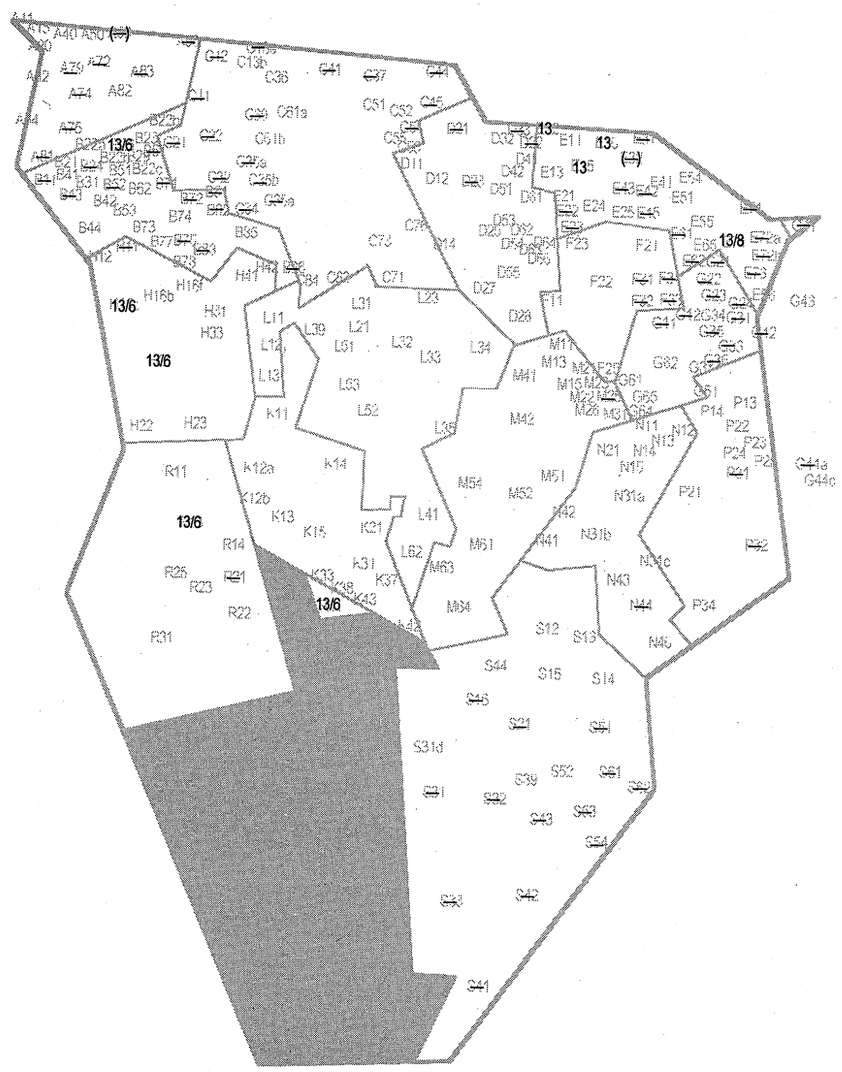
### 4.2.10 The distribution of singular class 13 and its plurals

Yet another unusual and innovative singular class is that of 13. Contrary to the

[121] This is not agreed by all. I return to this in chapter 5.

[122] A similar instability regarding the distinction between the vowels *i* and *u* can be seen in the mergers of classes 5 and 11, the prefixes of which typically display forms like *li-* and *lu-* respectively.




13/6
13
13/6
13/6
13/6

singular uses of classes 8 and 10, however, it has a very wide distribution, though very spotty (see figure 79). It is found along the western area as well as in the north-east. In the north-east area, it seems to have a primarily secondary function. In Luganda (E15), for instance, singular class 13 signifies "small quantities of liquid, semi-liquid and granular substances" (Cole 1965: 47). Thus we find words like *tùfútà* 'a drop or small quantity of oil' derived from *màfútà* 'oil' (class 6), *tûnnyó* 'a pinch of salt' derived from *mûnnyó* 'salt' (class 3), *tùzígò* 'a scrap of butter' derived from *mùzígò* 'butter' (class 3), and so on (idem). Usually they have no plural forms.

In the western area, singular class 13 seems to function more regularly as a primary class. In Kiyombe (H16c), for instance, we find it in pairing 13/6 (De Clercq 1907: 456). Quantitatively, it seems to be a fairly small class, containing only a handful of nouns, for instance, *túlu* 'sommeil' (Fr.) with plural *matúlu*, *túvi* 'excrément' (Fr.) with plural *matuvi*, and *tufinya* 'pus' (Fr.) with plural *mafinya* (idem).

### 4.2.11 The distribution of class 14 and pairings involving it

All pairings involving singular class 14 are non-dense or even spotty (see figure 80). The major reason for this is simply that class 14 most often functions as a single class, in that it contains most often abstract nouns that are never or very seldom used in the plural, and therefore many grammar descriptions give no plurals for class 14. But when a plural class is given, it is most often that of class 6. Thus pairing 14/6 is the only pairing with a maximally wide (and non-dense) distribution. Pairing 14/4 is found scattered in the western and north-eastern areas, while that of 14/10 is mainly found in the north-east, though it also occurs in Icibemba (M42),[123] Siyeyi (R41) and Isixhosa (S41); see also Thimbukushu (K43).

There are a couple of very interesting distributions regarding mergers and near-mergers involving class 14 (see figure 81), both of which have already been mentioned above. Full mergers of 14=3 are found only in the rainforest area as well as in Umbundu (R11).[124] Outside the rainforest we find only near-mergers. Full mergers of classes 14 and 11 are found chiefly in the upper part of the eastern area.[125] (See also above on this.) Note that the majority of attested non-occurrences of class 14 are in the same area as that of the 3=14 mergers. Possibly there is room for establishing more mergers involving classes 3 and 14 in this area. There is also

123 At least according to Kadima (1969: 95). Van Sambeek's (1955) grammar provides no support for this.

124 The mergers 2=6 and 14=3 have similar distributions, both being concentrated in the rainforest area and both having an "odd" occurrence also in Umbundu. However, both mergers involve similar sound changes, namely, a loss of the distinction between *b* and *m*.

125 I disregard here Myɛnɛ, which displays a massive 1=3=11=14 merger which possibly also involves class 15 (see supplementary section A).



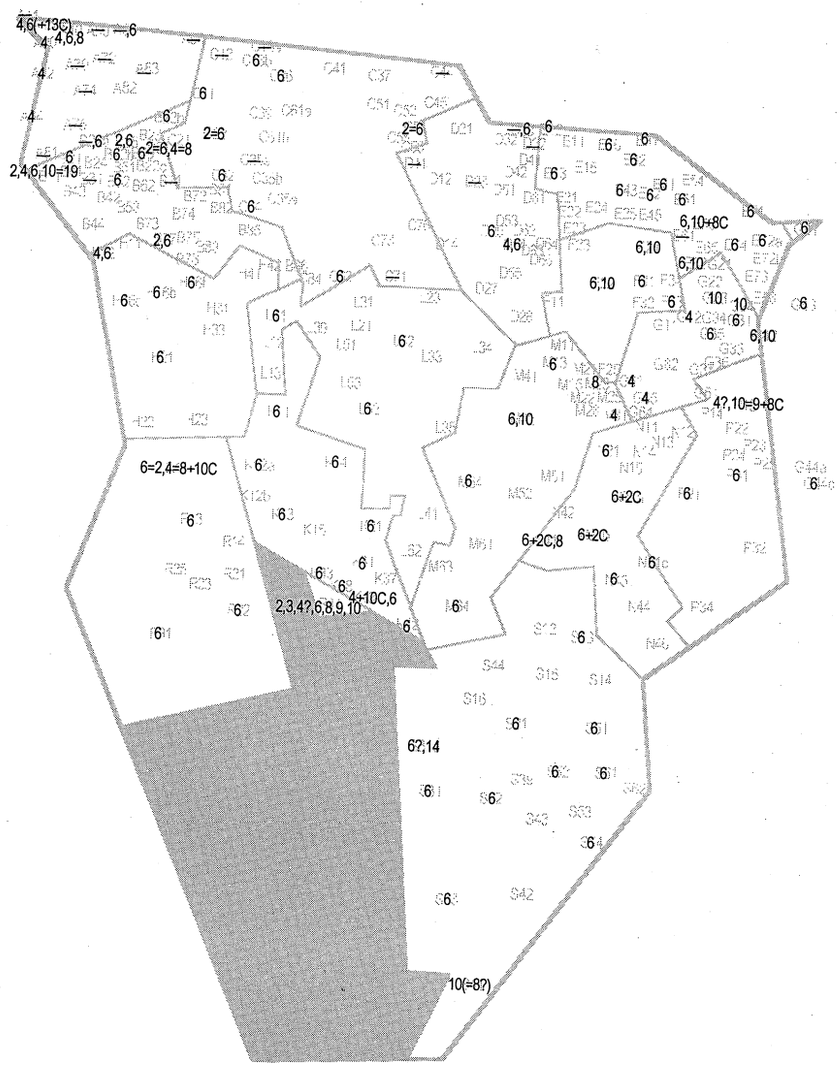



Figure 80 The distribution of plurals to class 14
"C" = concords; "—" = claimed non-occurrence of class 14.

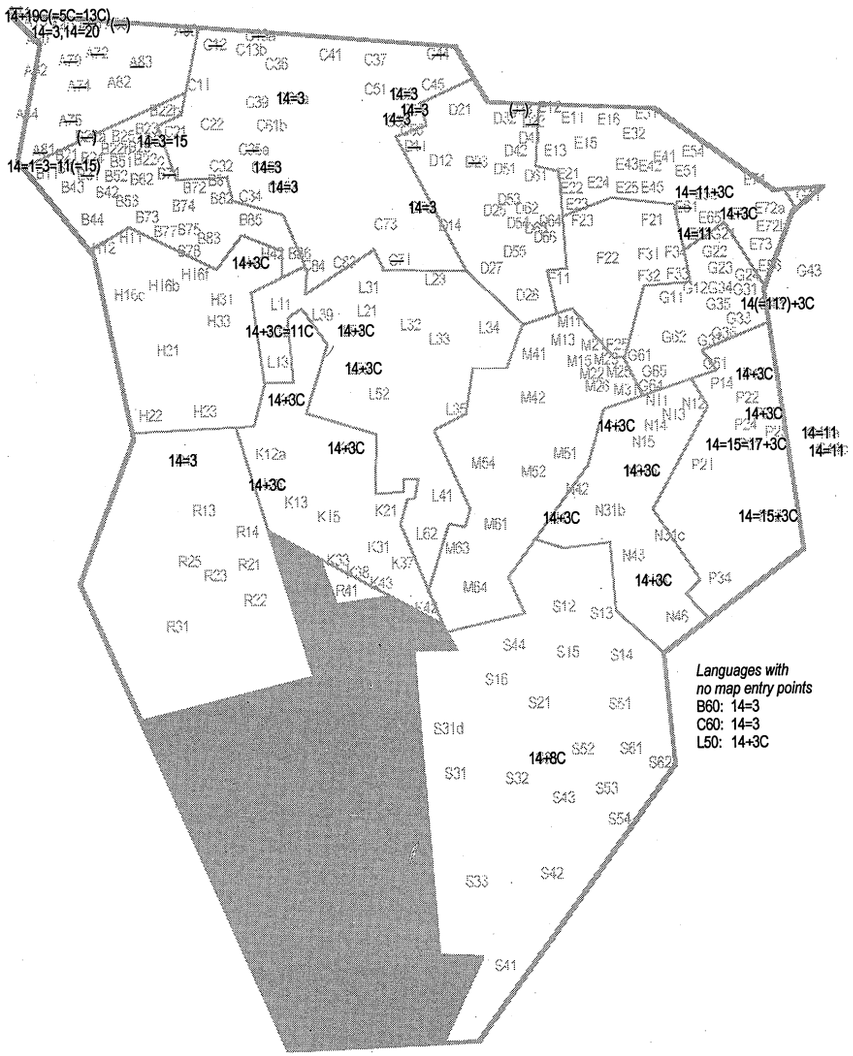



Figure 81 Mergers, near-mergers and non-occurrences involving class 14
"C" = concords; "—" = claimed non-occurrence of class 14; a few putative mergers involving classes 14 and 15 in zone B are not shown here; but see figure 84.



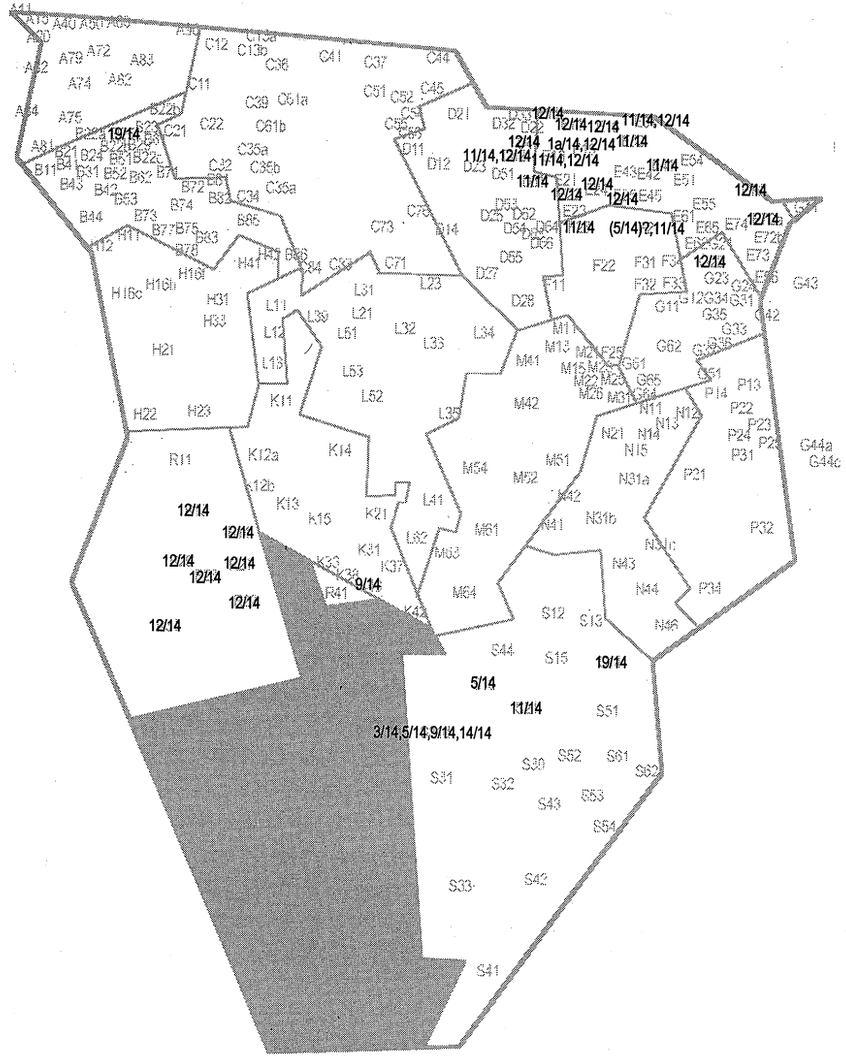



Figure 82 The distribution of pairings involving plural class 14

a possible 14≈15 distribution in the north-west (not visible in figure 81, but see figure 84 below), which I will discuss in the next subsection.

Besides its singular use, class 14 has also acquired a plural use (see figure 82). As such it occurs in pairings 11/14, found in the north-east as well as Tshivenda (S21), and 12/14, found in the north-east and south-west. All but one of the occurrences are found in the north-east, south-west and upper south. One seemingly displaced occurrence is that in Kota (B25).

### 4.2.12 The distribution of singular class 15 and its plurals

Usually class 15 functions as the infinitive class in Bantu languages, something that I will return to in the next section. Yet there are a number of languages that classify a handful of nouns in class 15. These were discussed in chapter 3 already, so I will not repeat that discussion here. The distribution of pairings involved is mapped in figure 83. The most common non-infinitive pairing involving singular class 15 is that of 15/6, scattered over much of the Bantu area. Pairing 15/4 is found in some western Bantu languages. Moreover, here is an interesting lacuna in the distribution of singular class 15 in the south and along the eastern coast (especially the southern part of it). Also most of the rainforest area seems to lack singular class 15 nouns.

What I have identified as putative singular class 15 nouns in the B20 languages have not been identified as such by my source, Jacquot (1983), who identifies them as class 14 nouns instead. In fact, he gives two class 14 prefixes for many of these languages, one with a zero-prefix and another with a *u*-prefix. Their concords seem to be totally identical. In Sɛki (B21), for instance, we find two pairings labelled '14/6' and '14a/6' respectively (Jacquot 1983: 189ff). The former is exemplified with the nouns *ùsu* 'front' (Fr.), *ùkòlú* 'jambe' (Fr.) and *úŋòmbù* 'crocodile' (Fr.), characterized by a *u*-prefix, while the latter is exemplified with a single noun, *wátsì* 'pirogue' (Fr.), given with a zero-prefix. This latter noun ('canoe' in English) is typically found in class 14 in many Bantu languages, even though it is atypical of the traditionally recognized contents of class 14, containing mostly abstract nouns (see chapter 3). Jacquot's class '14', on the other hand, contains at least one typical class 15 noun, namely, that for 'jambe' (or 'leg' in English). Thus going by their contents, what Jacquot labels '14' seems to be that of class 15, while '14a' seems to be that of 14. Identifying Jacquot's class '14' as that of 15 is also supported by Guthrie's postulated sound laws, according to which the Proto-Bantu prefix **ku-* should show up as *u-* in Sɛki (see Guthrie 1971: 34). This interpretation is not without problems, though, since it leaves the zero-prefix of what would then be left as class 14 unexplained. I have in any case supplied these



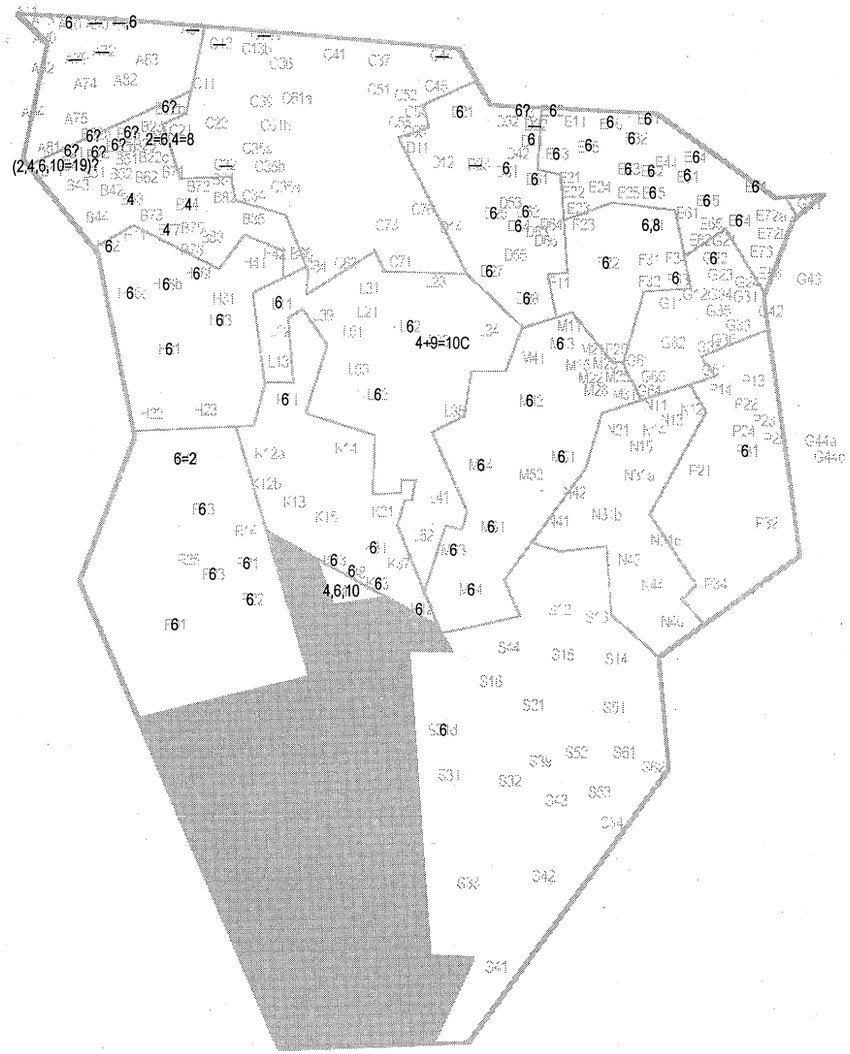



Figure 83 The distribution of plurals to class 15
"C" = concords; "—" = claimed non-occurrence of class 15.

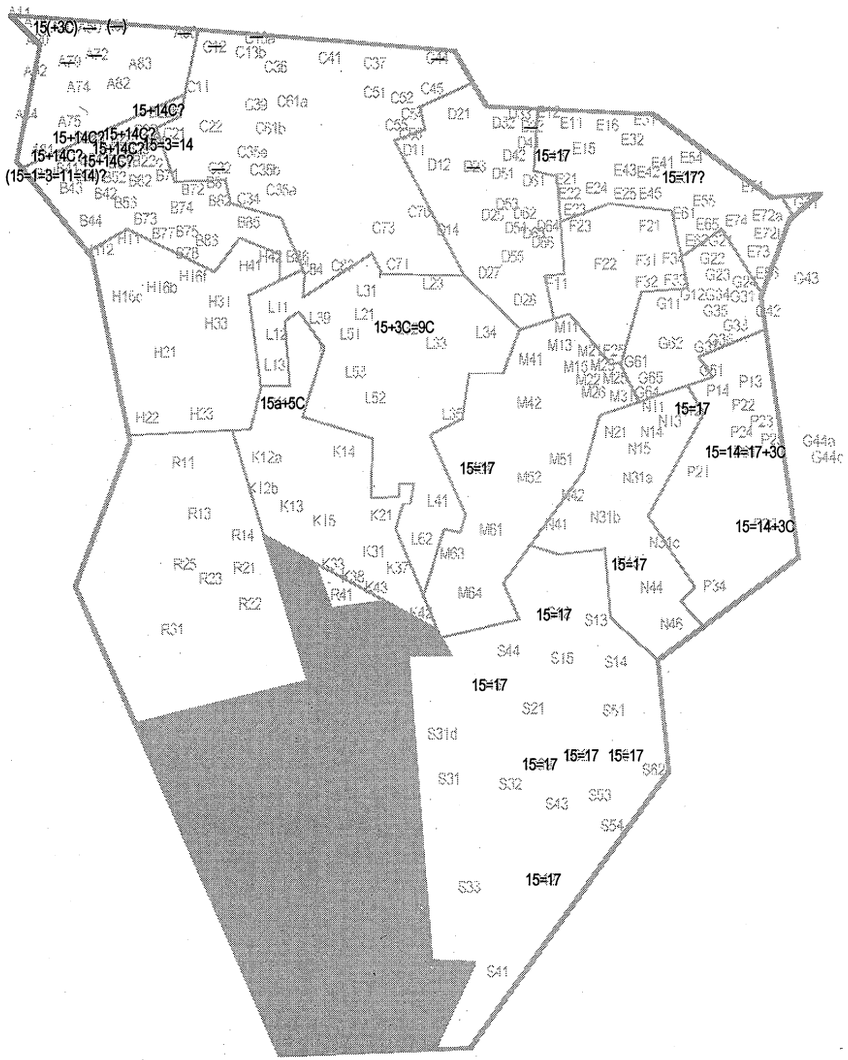



Figure 84 Mergers, near-mergers and non-occurrences involving class 15
"C" = concords; "—" = claimed non-occurrence of class 15.



putative near-mergers with a question mark in figure 84.[126] (See also comments and discussions in supplementary section A.)

Irrespective of the above, however, there are at least two attested mergers involving classes 14 and 15, namely, in the eastern Bantu languages Emakhuwa (P31) and Lomwe (P32). As for Emakhuwa, there exist a number of inconsistencies in the literature. I have relied mostly on Prata (1960), and the many tables and examples he provides. Specifically with regard to mergers and near-mergers involving class 15, the data provided by Prata (1960) support a full merger between classes 14, 15 and 17, and a near-merger of merged class 14=15=17 and class 3. Mergers involving classes 15 and 17 seem clearly restricted to the eastern Bantu area.

### 4.2.13 The distribution of classes 16, 17 and 18

Classes 16, 17 and 18 are the so-called locative classes. Their use and function in individual Bantu languages differ. Some use them very productively to derive locative nouns, as is the case in Oshindonga (R22), while other languages, like Kiswahili (G42), use them more restrictedly (see chapter 3). I have not surveyed the language-individual uses (for which see Růžička 1959; 1960), only their geographical distributions. The full distribution of these classes is very wide, as seen in figure 85, though not maximally wide since there are some notable lacunas in the rainforest area as well as zone H. Even though some languages lack one or two of these three classes, most languages have traces of all three, either as adverbializing prefixes or as full-fledged noun classes (see also Toporova 1997: 58). If the distribution shown in figure 85 is taken at face value, languages with less than 3 of these locative classes are generally found at or close to the edges of the Bantu area.

In a few eastern Bantu languages, these classes occur in pairings, something that they usually do not.[127] In Kamba (E55), Kikuyu (E51) and Tharaka (E54), we find pairing 16/17, while in Emakhuwa (P31) we find pairing 16/18. In Kamba, there is only one word which finds its primary classification in pairing 16/17 and that is *vandũ* 'place' with plural *kũndũ* (Whiteley & Muli 1962: 54). This is used as a regular noun, with concords and all, but this is all that it is used for. There is no productive locative-adverbial use of these classes, for which a suffix *-nĩ* is used. Similar locative suffixes are very common in the eastern Bantu languages as well as some north-central languages (see Růžička 1959: 217). Often they are used together with the locative classes 16, 17 and 18 (see chapter 3).

126 I have not plotted these data into the earlier map showing mergers and near-mergers involving class 14.
127 There is no special map for this distribution.

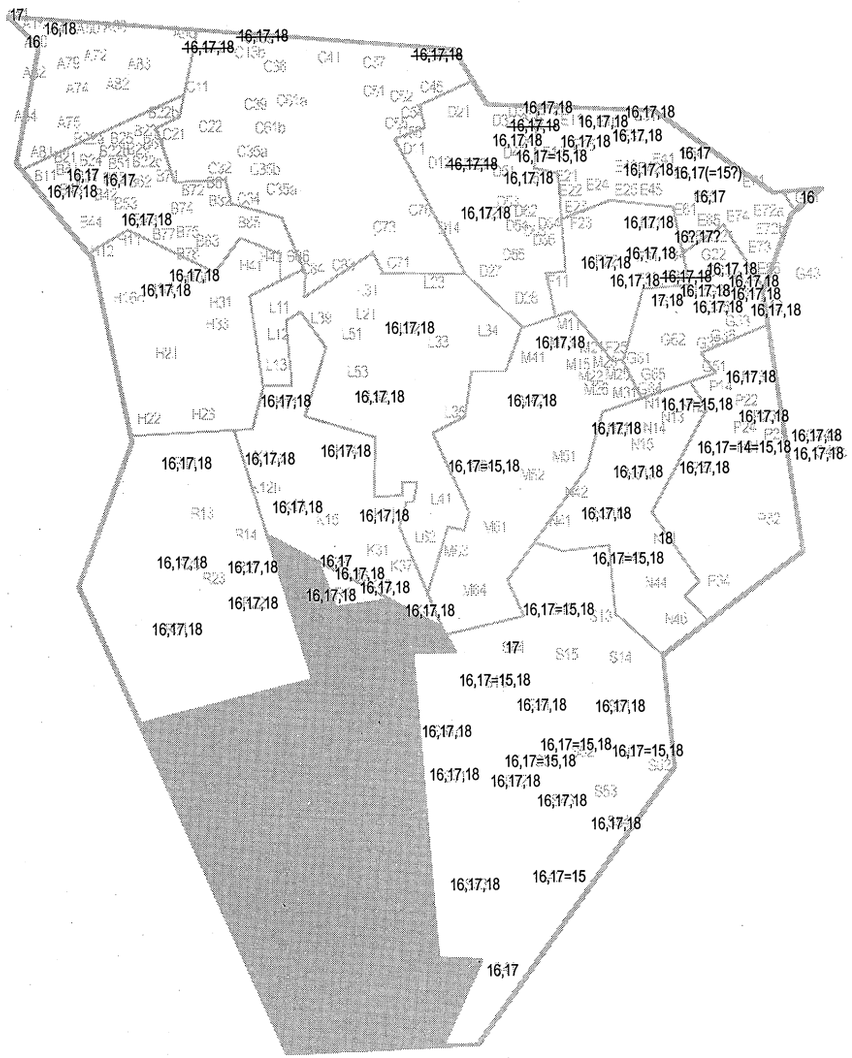


Figure 85 The distribution of classes 16, 17 and 18
Data on concord-mergers are here excluded; overlining indicates claimed non-occurrence.



### 4.2.14 The distribution class 19 and pairings involving it

Class 19 has a restricted distribution, being mainly confined to the rainforest area (see figure 86). In most languages class 19 functions as a singular class, but in a few languages it functions as a plural class. The latter function is found either outside the rainforest or at its margins. There is one occurrence of a singular class 19 found outside the rainforest area, namely, in Karanga (S14) in the south. The most common pairing involving singular class 19 is that of 19/13, though 19/8 is found in a number of languages in the upper western parts, specifically zones A, B and H. Most occurrences of plural class 19 are found concentrated in a small area in the lower north-east. An uncertain occurrence is found in Silozi (K21). Doke (1954: 241) claims a 7/19 pairing for Silozi, but this is labelled '7/8' by other sources (Cole 1967: 128f; Gowlett 1989: 135).

In the north-western Bantu area, specifically zone A60, the plural of class 19 displays the prefix *mu-*. A similar nasal prefix is found in some Southern Bantoid languages (Watters & Leroy 1989: 437+442). Unless we classify the A60 languages outside the Bantu group (see chapter 2), it seems likely that this plural *mu*-prefix is an areal influence from the (non-Bantu) Southern Bantoid languages. There is no BM number associated with this prefix, simply because no one has identified it according to the BM system. It could possibly be related to class 4, the prefix of which is often *mi-*, in which case the *mu*-prefix could be the result of a vowel-confusion (*i~u*) similar to that attested in other morphemes (see, for instance, on classes 5 and 11 in chapter 4). It could also be a merger of classes 3 (*mu*-like) and 14 (*bu*-like), a merger that is in fact attested in the area. It could even be that of class 18 (*mu*-like). Or it could be a class totally unrelated to any hitherto recognized Proto-Bantu class.

### 4.2.15 The distribution of classes 20, 21 and 22

Classes 20, 21 and 22 are rare. The distribution of these classes is mapped in figure 88. They are commonly used only in secondary function, specifically as augmentative and/or diminutive classes. The only safe attestations of class 20 occur in the north-east and in the south, specifically zones E and S. The occurrence of class 20 in Otjiherero (R31), claimed by Ohly (1984), seems highly uncertain. The nouns which he offers as putative class 20 nouns are such as *okurama* 'leg' and *okuoko* 'arm' (idem: 17). These have already been noted as class 15 nouns in chapter 3 above. A similar uncertainty concerns the 14=20 merger claimed for Tùnɛn (A44) by Dugast (1967: xvi; 1971: 83). The recognition of class 20 in Otjiherero and a 14=20 merger in Tùnɛn is strongly dependent on the fact that class 20 can be reconstructed back to Proto-Bantu. If that is the case, then we must

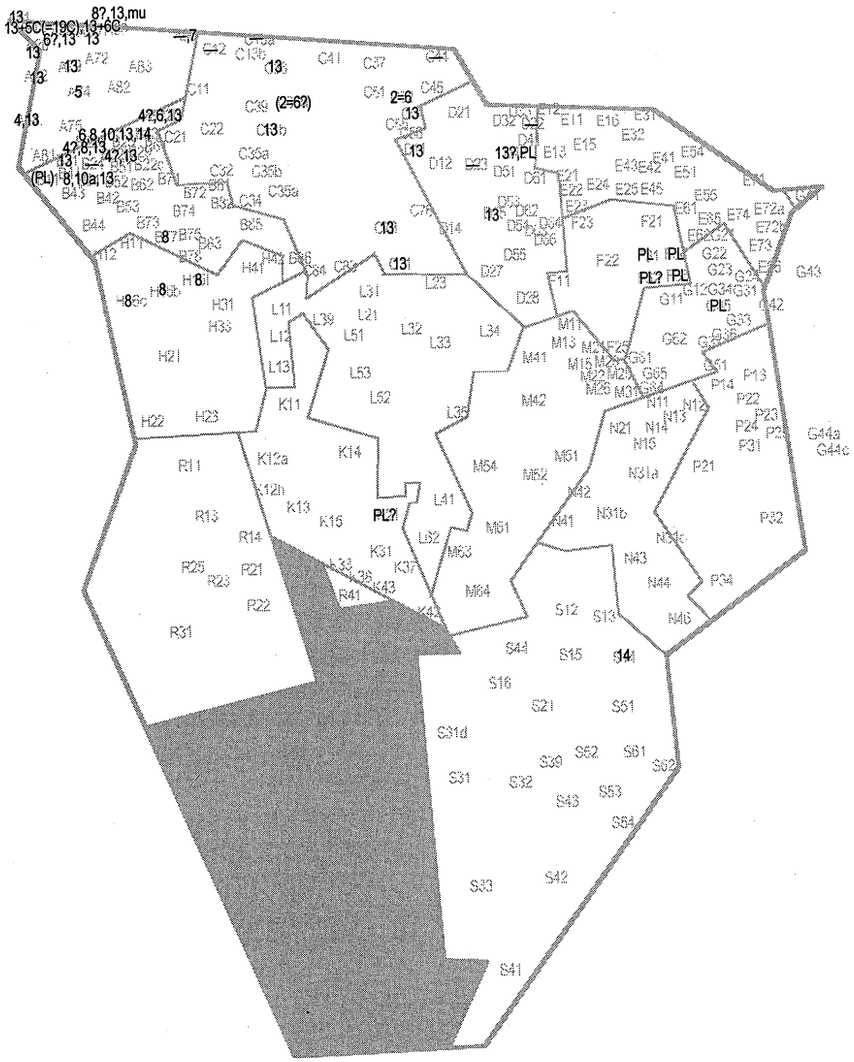


Figure 86 The distribution of plurals to class 19 and the use of class 19 as plural
"C" = concords; "PL" = class 19 used as plural class; "—" = claimed non-occurrence of class 19.



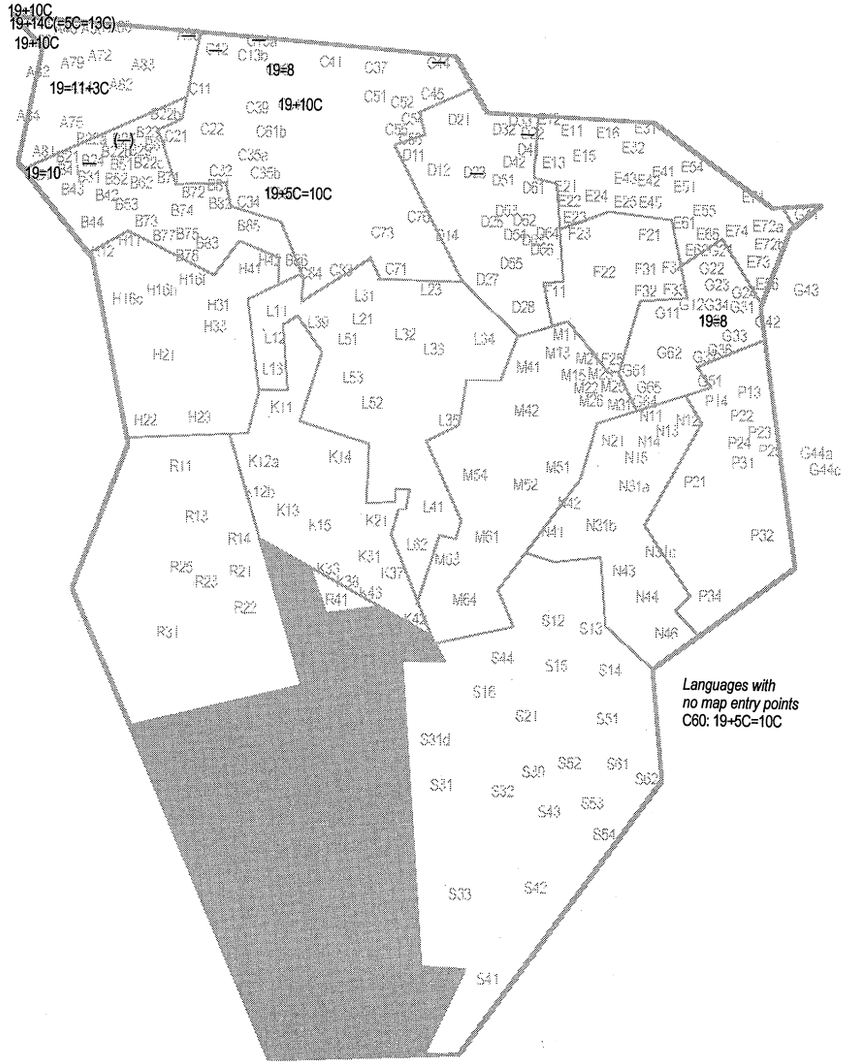



Figure 87 Mergers, near-mergers and non-occurrences involving class 19
"C" = concords; "—" = claimed non-occurrence of class 19.

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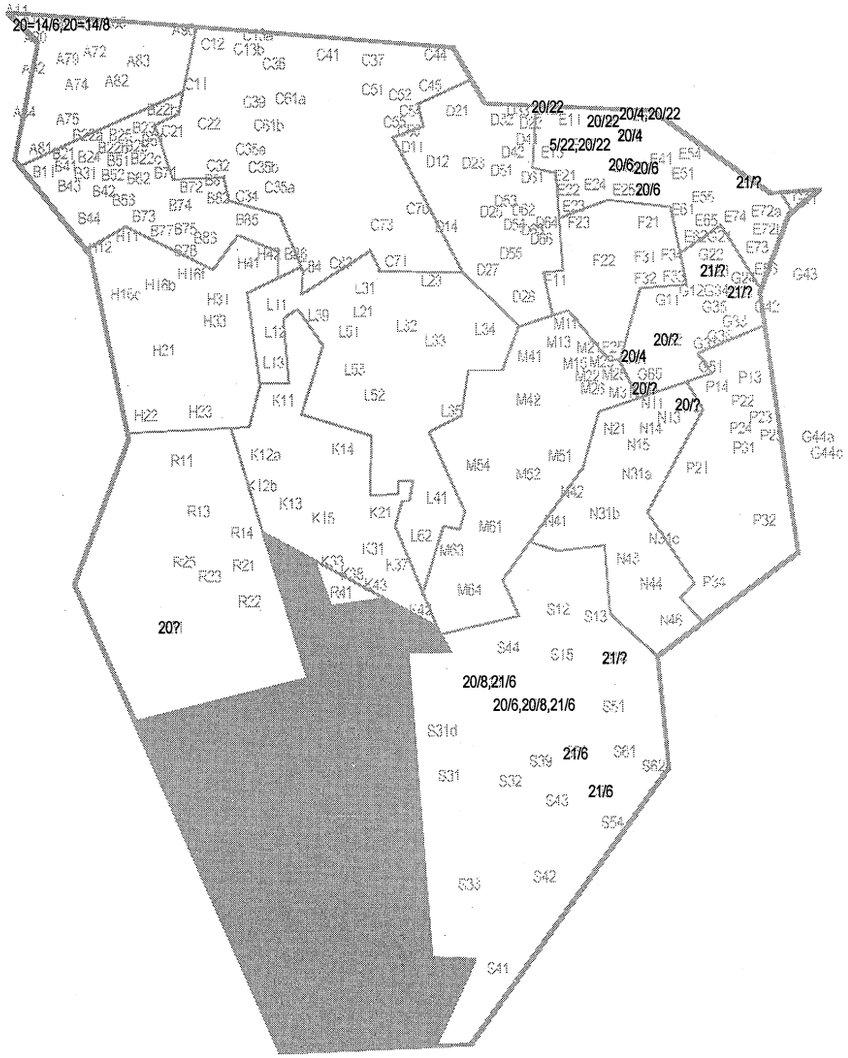



Figure 88 The distribution of pairings involving classes 20, 21 and 22
Data on concords is not shown in this map.



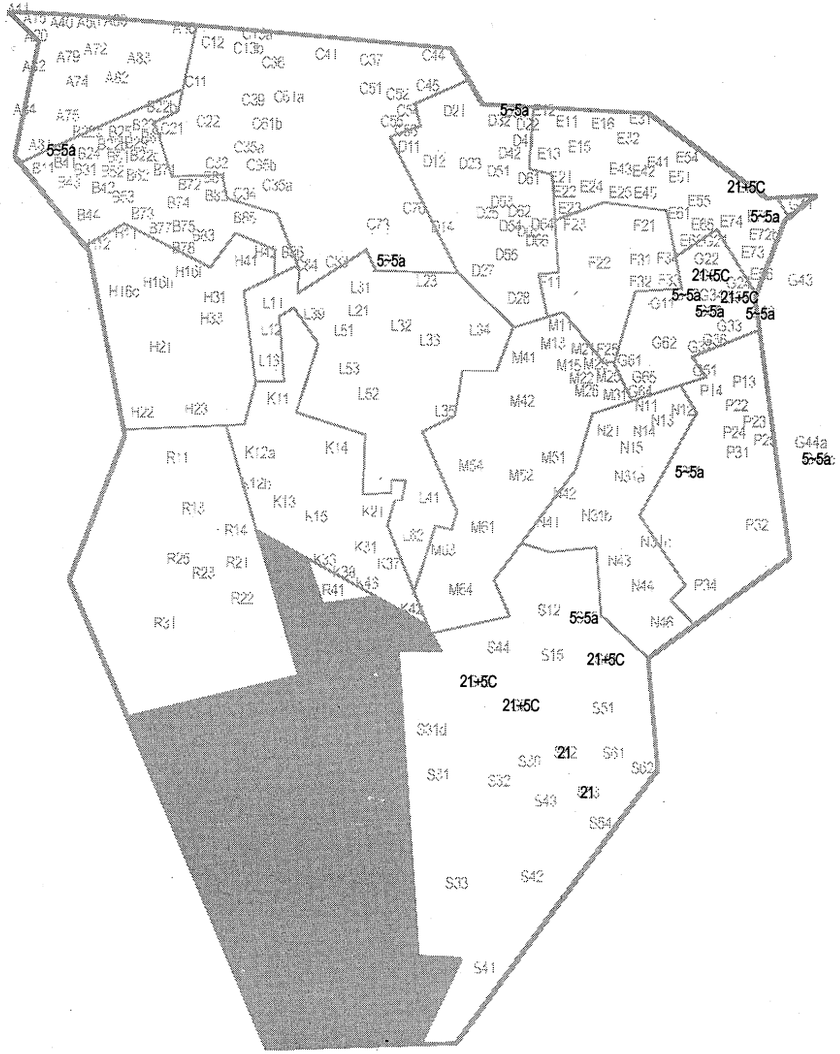



Figure 89 The distribution of class 21 and split class 5~5a
"C" = concords.

assume it to have disappeared or merged in the majority of Bantu languages, and thus also the "displaced" occurrences in Otjiherero and Tùnɛn would seem more probable. However, the reconstruction of a Proto-Bantu existence of class 20 is not certain. I return to this issue in chapter 5.

Class 21 is used for augmentatives where it occurs, and it seems regularly to employ the concords of class 5. The attested distribution of class 21 is restricted to the southern Bantu area, but in fact many more occurrences of this class could have been recognized. In many eastern languages, where there are no attested occurrences of class 21, we find instead two class 5 prefixes (both employing the same set of concords); one prefix is used for primary classification, while another one is used for augmentatives. There is good reason to recognize the attested occurrences of class 21 as the result of a previous split of class 5, as suggested by Kadima (1969: 184). Figure 89 shows the distribution of class 21 and a split class 5 (notated '5~5a'), and clearly suggests that the choice of '5~21' or '5~5a' depends on notational conventions.

The historical reality behind the different class 5 prefixes may of course be different in the different languages, but at least the eastern Bantu occurrences seem likely to have a common origin (see Nurse & Hinnebusch 1993: 338). Usually one of the prefixes looks like a morphologically more complex form of the other. In Luguru (G35), for instance, we find the forms *li-* and *lits-*, and in Zigula (G31), we find *di-* and *liz-* (idem). There are, furthermore, geographically restricted differences in how these prefixes are used. Typically in the eastern area, one of the prefixes is used with augmentatives, while the other occurs only on primary nouns. Usually it is the phonologically less complex form that is used with augmentatives, and the phonologically more complex with primary nouns. In the rainforest languages, their uses differ in that both are used with primary nouns, albeit different ones. In Sɛki (B21), for instance, the 5 prefix *di-* occurs in pairing 5/6 and 5/10, while the 5a prefix *ø-* occurs only in pairing 5a/6 (Jacquot 1983: 190ff).

As for class 22, we find it only in the north-east. According to Kadima (1969: 184), this too is the result of an earlier split, in this case involving class 6. I see no reason to disagree with him.

### 4.2.16 The distribution of locative class 23

The labelling of this particular locative class is a mess. The noun class that was originally labelled '23' by Meinhof (1899; 1948: 60), which is not the same class as that labelled '23' here, was an infinitive class. It has since been dropped as a putative noun class (see chapter 5). This means that the label '23' is (or was) vacant. Cole (1965) used it for one of the locative classes in Luganda, and I follow



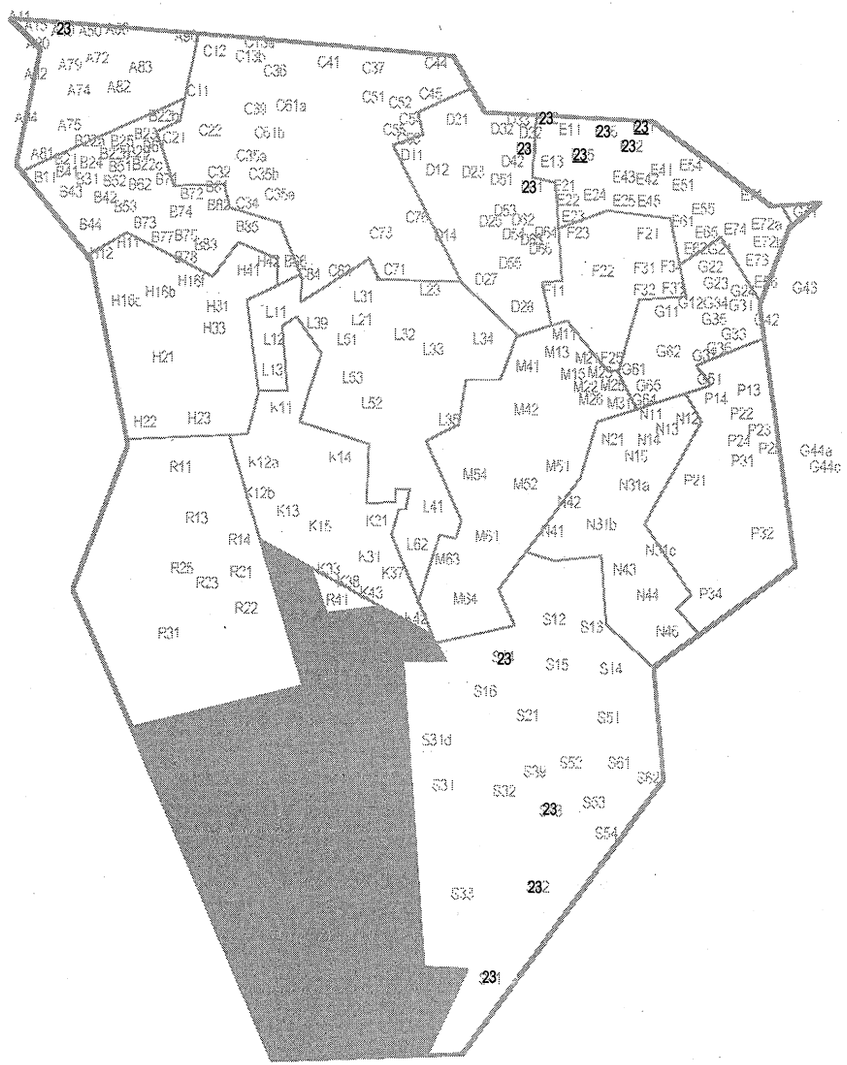


Figure 90 The distribution of locative class (prefix) 23
Underlining indicates languages where the class 23 prefix comes with concords.

his notation here. Meeussen (1967) used the label '24' in his Proto-Bantu reconstruction for this particular noun class and for some unexplained reason Bastin (1983: 42) uses '25'.[128]

The distribution of this putative class 23 is much more restricted than for the other locative classes (see figure 90). Class 23 noun prefixes are associated with concords only in the extreme north-east, specifically, in Luganda (E15) and Bukusu (E31). Locative prefixes likely to be related to class 23 are found over a fairly wide area, however. Besides the distribution in the extreme north-east (including Luganda and Bukusu), we find such prefixes also in the south and in the north-western Mbɛnɛ (A43). Possibly these should not be recognized as occurrences of class 23, but I have done so here for completeness.

## 4.3 Semantically organized distributions

In this section, I will discuss the second set of distributions, which contains semantically defined distributions. I have included only those for which sufficient amounts of data have been fairly easily available to me.

### 4.3.1 The distribution of language names

One area where data have been fairly easily accessible concerns the classification of language names. In Mbunda (K15), for instance, the name of the language is classified in class 9, according to Gowlett (1970) who gives the name as 'Mbúùndà'. It is interesting to note that few Bantu languages classify the language name as such and the word for 'language' in the same class. For instance, the language name 'Kiswahili' is in class 7, as indicated by the prefix *ki-*, while the word for 'language', *lugha* (with a zero-prefix), is a 9/10 noun (Perrott 1965: 46). Similarly, the language name 'Ùŋgɔ́m', with a prefix *ù-*, for a language here referred to as 'Northern Ngɔm' (B22b) is found in class 14, while the word for 'language', *lélémà* (prefix *lé-*), is a 11/6 noun (Jacquot 1983: 209). The same is true for many Bantu languages. What is worth noting is that the word used for 'language' is also often used for 'tongue' (or vice versa perhaps). Thus in Rukwangali (K33), the 5/6 noun *eraka* (prefix *e-*) can be translated as either 'language' or 'tongue', or both.

As the just-used examples indicate, language names can be found in a variety of different noun classes. I will here concentrate on those three classes that seem to be the most oft-used, namely, classes 5, 7 and 11. For brevity, I label language names appearing in these classes 'li-names', 'ki-names' and 'lu-names'

128 The labels '24' and '25' will be used for other purposes below.



| A | B | C |
|---|---|---|
| A15 | Akoose | 5 |
| | Elong | 7 |
| A50 | Ngayaba | 5 |
| A60 | Nùbàcâ | 11 |
| | Nùgùnù | 11 |
| | Nùkàlònè | 11 |
| B22c | Íßùßì | 5 |
| B25 | Íkótà | 7 |
| | Àsákè | 7 |
| B31 | Ɣétsɔ́gɔ̀ | 7 |
| | Ɣàpínɲì | 7 |
| C13b | Dingando | 5 |
| | Dikota | 5 |
| C36 | Losɛngɔ | 11 |
| | Lingala | 5? |
| C45 | Lebeo | 5 |
| C55 | Lokele | 11 |
| C61a | Lomɔngɔ | 11 |
| C61b | Lonkundo | 11 |
| D22 | Kihyânzɨ | 7 |
| D25 | Kelega | 7 |
| D32 | Kiviira | 7 |
| D33 | Lívanumá | 5 |
| | Línyàlì | 5 |
| D41 | Rùkɔ́nzɔ́ | 11 |
| D42 | Olunande | 11 |
| D51 | Kihuunde | 7 |
| | Orukó:ßí | 11 |
| D53 | Kitembo | 11 |
| D61 | Kinyarwanda | 7 |
| | Runyarwanda | 11 |
| D62 | Kirundi | 7 |
| D63 | Ikifuliiro | 7 |
| D66 | Kiha | 7 |
| E11 | Orúnyórò | 11 |
| | Rugungu | 11 |
| E12 | Orútóórò | 11 |
| E15 | Luganda | 11 |
| | Òlùgânda | 11 |
| E16 | Olúsògà | 11 |
| E21 | Ekinyambo | 7 |
| E22 | Ekihaya | 7 |

| A | B | C |
|---|---|---|
| E23 | Ekizinza | 7 |
| E24 | Kikereße | 7 |
| E25 | Ecejiita | 7 |
| | Kikwaya | 7 |
| E31 | Ulúgìsù | 11 |
| | Lubukusu | 11 |
| E32 | Lùhángà | 11 |
| | Lùxáàyò | 11 |
| | Lwísùxà | 11 |
| E42 | Ékiɣùsʲì | 7 |
| E43 | Iɣikúría | 7 |
| E45 | Ikinata | 7 |
| E51 | Kikuyu | 7 |
| | Ɣiɣikúyu | 7 |
| E54 | Kitharaka | 7 |
| E55 | Kikamba | 7 |
| E62 | Kʲʃàkà | 7 |
| | Kìmàʃàmì | 7 |
| | Kimotʃi | 7 |
| E71 | Kifokomo | 7 |
| E72a | Kigiryama | 7 |
| E74 | Kidaßida | 7 |
| | Kiteri | 7 |
| F21 | Kesukuma | 7 |
| | Kigwe | 7 |
| F22 | Kinyamwezi | 7 |
| F31 | Kinʲlyamba | 7 |
| F32 | Kirímì | 7 |
| G11 | Cigogo | 7 |
| G12 | Cikagulu | 7 |
| G23 | Kiʃambaa | 7 |
| G31 | Kizigula | 7 |
| G34 | Kingùlù | 7 |
| G41 | Cimwiini | 7 |
| G42 | Kiswahili | 7 |
| G44a | Shingazidja | 7 |
| G44c | Shimaore | 7 |
| H11 | Kibeembe | 7 |
| H12 | Kivili | 7 |
| H16 | Kikongo | 7 |
| H16f | Kilaadi | 7 |
| H21 | Kimbundu | 7 |

| A | B | C |
|---|---|---|
| K21 | Silozi | 7 |
| K33 | Rukwangali | 11 |
| | Thikwangali | 7 |
| K38 | Rugciriku | 11 |
| | Thigciriku | 7 |
| K42 | Cisubiya | 7 |
| K43 | Thimbukushu | 7 |
| M42 | Icibemba | 7 |
| N21 | Citumbuka | 7 |
| N31a | Chinyanja | 7 |
| N31b | Chichewa | 7 |
| N43 | Cinuyngwe | 7 |
| N44 | Cisena | 7 |
| P13 | Kimatuumbi | 7 |
| P21 | Ciyao | 7 |
| P23 | Shimakonde | 7 |
| | Kimakonde | 7 |
| P31 | Emakhuwa | 7=9 |
| R21 | Oshikwanyama | 7 |
| R22 | Oshindonga | 7 |
| R23 | Oshikwambi | 7 |
| R25 | Oshimbalanhu | 7 |
| R31 | Otjiherero | 7 |
| R41 | Siyeyi | 7 |
| S13 | Chimanɣika | 7 |
| S14 | Chikaranga | 7 |
| S21 | Tshivenda | 7 |
| | Luvenda | 11 |
| S31 | Setswana | 7 |
| S31d | Sekgalagadi | 7 |
| S32 | Sepedi | 7 |
| S33 | Sesotho | 7 |
| S41 | Isixhosa | 7 |
| S42 | Isizulu | 7 |
| S43 | Siswati | 7 |
| S44 | Sindebele | 7 |
| S51 | Xitshwa | 7 |
| S52 | Xigwamba | 7 |
| S53 | Xitsonga | 7 |
| S54 | Xironga | 7 |
| S61 | Cicopi | 7 |
| S62 | Gitonga | 7 |

Figure 91 Some Bantu language names appearing in classes 5, 7 and 11
Column A = map entry point (roughly in accordance with Guthrie's classification)
Column B = language/dialect name as given by source (with slightly modified orthography)
Column C = noun class used for the language name as identified by the sources

Sources as listed in supplementary section A, especially Richardson (1957) and Tucker & Bryan (1957). Additional sources include Schumacher (1954 ), Hulstaert (1960), Wentzel & Muloiwa (1982), Lipou (1997) and Schoenbrun (1997). Note that <ɗ> has been written here as <d>, <ɪ> as <i>, <ʊ> as <u>, <ǫ> as <o>, <θ> as <th>, <ʉ> as <ß>, and <ɽ> as <r>.

| A | B | C |
|---|---|---|
| B25 | Lisake (185) | 5 |
| B41 | Esira (184) | 5? |
| B44 | Kilumbɷ (103) | 7 |
| B51 | Liduma (189) | 5 |
| B62 | Limbamba (182) | 5 |
| B78 | Kiwumbu (177) | 7 |
| | Ewumu (177) | 5? |
| B82 | Kibɷma (120a) | 7 |
| C32 | Lɷbɷbañgi (166) | 11? |
| C36 | Likañgaña (158) | 5 |
| C41 | Liñgombe (161) | 5 |
| C52 | Lɷsɷkɷ (157) | 11 |
| C56 | Lifɷma (155a) | 5 |
| | Lɷkesu (155a) | 11 |
| C84 | Şilele (124) | 7 |
| D14 | Genya (141) | 7? |
| D32 | Lusese (4a) | 11 |
| | Lubusese (146) | 11 |
| | Lubira (146) | 11 |
| D33 | Lihuku (148) | 5 |
| D64 | Lusinja (2g) | 11 |
| E13 | ɷruhima (2d) | 11 |
| E21 | Urukaragwe (2e) | 11 |
| E22 | Luziba (2g) | 11 |
| E24 | Urukerebe (2f) | 11 |
| E42 | Igizii (7) | 7 |
| | Kisiñgiri (7) | 7 |
| E61 | Kimeru (17e) | 7 |
| E62 | Kirombɷ (17d) | 7 |

| A | B | C |
|---|---|---|
| F23 | Kisumbwa (9a) | 7 |
| F25 | Iciwuñgu (48) | 7 |
| F32 | Kinyaturu (10) | 7 |
| G35 | Kiruguru (23c) | 7 |
| G37 | Kixutu (23b) | 7 |
| G41 | Kitikuu (21e) | 7 |
| G42 | Kiñgɷje (21g) | 7 |
| H12 | Kivumbu (102a) | 7 |
| (B78?) | Luwumbu (102a) | 11 |
| H16c | Kiyombe (102) | 7 |
| | Ciluañgɷ (102) | 7 |
| H22 | Kisama (95) | 7? |
| H23 | Libōlɷ (96) | 5 |
| | Lubɷlu (96) | 11 |
| K11 | Cibokwe (88) | 7 |
| K13 | Lujazi (86) | 11 |
| K14 | Luina (84) | 11 |
| K31 | Silūyi (83) | 7 |
| K37 | Sikwañgwa (83a) | 7 |
| L12 | Cisamba (105) | 7 |
| L13 | Kikwese (115) | 7 |
| L21 | Lukete (104a) | 11 |
| L23 | Lusoñge (108) | 11 |
| L31 | Ciluba (105) | 7 |
| L34 | Kihemba (106) | 7 |
| L35 | Cisañga (105) | 7 |
| M21 | Işiwanda (49) | 7 |
| | Iciwandia (50) | 7 |
| M22 | Cinamwañga (47) | 7 |

| A | B | C |
|---|---|---|
| M23 | Işinyixa (49) | 7 |
| M26 | Işiwiwa (49) | 7 |
| M31 | Ikinyikiūsa (51) | 7? |
| | Ikikukwe (51a) | 7 |
| M63 | Ciila (78) | 7 |
| N11 | Kimanda (48a) | 7 |
| N13 | Kimateñgɷ (35a) | 7 |
| N14 | Cimpɷtɷ (55a) | 7 |
| N15 | Citoñga (53) | 7 |
| | Cisiska (53a) | 7 |
| | Cisisya (53a) | 7 |
| N21 | Cikamañga (52a) | 7 |
| N31b | Cipeta (61b) | 7 |
| N31c | Cimañanja (61a) | 7 |
| N41 | Cinseñga (62) | 7 |
| N42 | Cikunda (58) | 7 |
| N46 | Cipodzɷ (58a) | 7 |
| P14 | Ciñgindɷ (55) | 7 |
| P24 | Kidonde (33a) | 7 |
| | Kimawanda (33a) | 7 |
| P34 | Icuabɷ (57) | 7=9? |
| R13 | ɷlunyaneka (92) | 11 |
| R14 | Luñkumbi (92a) | 11 |
| S13 | Citeve (65) | 7 |
| S15 | Cindau (64a) | 7 |

Figure 92 More Bantu language names appearing in classes 5, 7 and 11
Column A = map entry point (roughly in accordance with Guthrie's classification)
Column B = language name as given by Johnston with his classificatory code number
Column C = putative noun class used for the language name

The data are culled from Johnston (1922: 2ff). Slight orthographical adaptations have been made. Note that the data in this table are only a selection and appear in parentheses in the map in figure 93. Language names verified by other sources have not been included here.

respectively.[129] The full set of collected data appears in two tables (figures 91 and 92), and their distribution is shown in figure 93. The reason there are two tables is because language names listed by Johnston (1922: 2ff) seem partly unreliable to me. Thus they appear in a table of their own (figure 92). The information derived from his language list appears in parentheses in the map in figure 93, unless it has been confirmed by some other source.[130]

There are some details in the tables in figures 91 and 92 that need to be

[129] The initial syllables derive from Meinhof's (1932: 39) reconstructed Proto-Bantu forms of the respective noun prefixes.

[130] Page references to Johnston's work are not given here. In figure 92, I have instead added language-specific numbers deriving from Johnston's peculiar classificatory system (see chapter 2 on this).



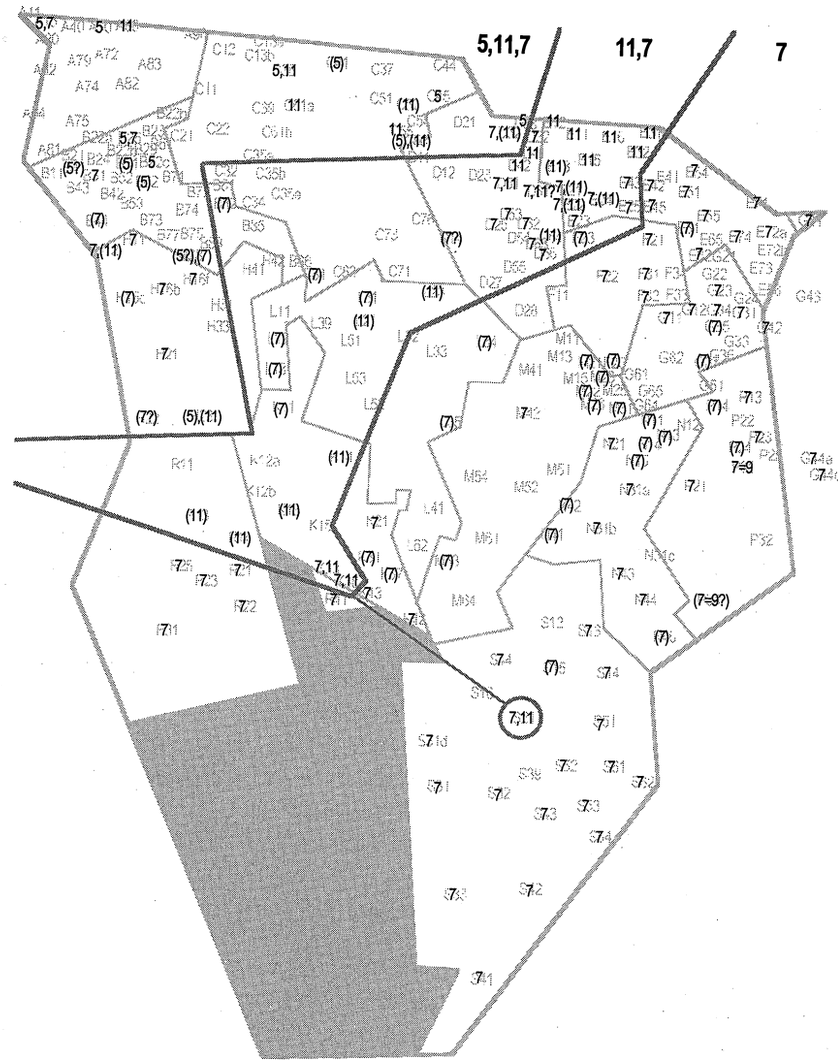



Figure 93 The distribution of noun classes 5, 7 and 11 used for language names
Information derived from Johnston (1922; see also figure 92) appears in parentheses.

clarified. Some language names occur both with and without an augment; for instance, the two forms given for Kikuyu (E51), 'Kikuyu' and 'Ɣiɣikúyu', differ (besides the orthographical difference) in that the latter contains an augmented prefix form. Some apparent oddities in the tables are, for instance, the two forms given for Kinyarwanda (D61), a language that is most commonly referred to with a ki-name, but Schumacher (1954) prefers the odd form 'Runyarwanda'. There are two forms given for other languages too, for instance, Rukwangali (K33) and Rugciriku (K38). The names used here are the standardized names, as they are used in Namibia. However, Sommer (1995: 20) gives the ki-forms 'Thikwangali' and 'Thigciriku' for these languages which presumably derive from dialects spoken in Ngamiland, Botswana. The seemingly odd form 'Luvenda' for Tshivenda (S21) derives from a dictionary by Wentzel & Muloiwa (1982). There, both forms 'Tshivenda' and 'Luvenda' are given but they are glossed slightly differently, the former as "Venda language and culture" (idem: 71), and the latter as simply "Venda language" (idem: 32).[131] I have not seen the form 'Luvenda' used anywhere else. The use of a lu-name clearly deviates from all other practices in the area.

Among the language names listed by Johnston (figure 92), we find 'Kivumbu' and 'Luwumbu' listed together with 'Kivili' (H12). It could be that these are variant names of Wuumu (B78), which Johnston himself lists as both 'Kiwumbu' and 'Ewumu'. Another strange piece of information listed by Johnston is the name given for Bobangi (C32), namely, 'Lɷbɷbañgi'. Whitehead's (1899) Bobangi grammar gives no such form, and I have seen it nowhere else. Yet another piece of odd information deriving from Johnston is the lu-name 'Urukerebe' (E24). The same language is given as a ki-name 'Kikereße' by, for instance, Schoenbrun (1997: 282ff). Another similar discrepancy is the two forms for Bira (D32). Johnston gives the lu-name 'Lubira', while the ki-name 'Kiviira' is given by Schoenbrun (1997: 270ff). Be that as it may, even if we disregard the just-mentioned discrepancies, the distributional patterns would not alter much.

The most widely used language names are ki-names (see figure 93), such as Kiswahili (G42), Setswana (S31) and Isizulu (S42), as witnessed by the prefixes *ki-*, *se-* and *isi-* respectively. The full distribution of these seems to cover all of the Bantu area south of the rainforest, where we find them fairly densely. Their occurrence among the rainforest languages seems somewhat spotty, though, for which reason a maximally wide distribution cannot be claimed. Besides language names listed by Johnston, there are no safe occurrences of ki-names in zones C and L, and there are only four in zones A and B. In zone A, we have the Manenguba

131 A similar semantic difference is given for the two forms for Kinyarwanda (D61) by Schumacher (1954: vii), and Cole (1955/1975: 85) glosses the word *setswana* as 'the Tswana language, Tswana characteristics'.



dialect Elong (A15), given as 'Ẹlɔŋ' with a class 7 prefix *ẹ-* by Richardson (1957: 25). In zone B, Jacquot (1983: 119+299+310) gives the ki-names 'Àsákè' for Sake (B25), 'Ɣétsɔ́gɔ̀' for Tsɔgɔ (B31) and 'Ɣàpínjì' for Pinji (B31).

A more restricted distribution is that of the lu-names, being confined to the northern and western Bantu areas. However, there is at least one outlier to be identified here, namely, the already-mentioned form 'Luvenda' for Tshivenda (S21). I return to this further below. Disregarding the odd lu-name given for Tshivenda, the general distribution of the lu-names is very interesting in that it seems to form a fairly goodly demarcated distribution. It should be noted, however, that most lu-names in the western Bantu area south of the rainforest derive from Johnston (1922), so I feel a bit uncertain as to how reliable the lu-name distribution shown in figure 93 really is.

Less common are the li-names, that is, language names appearing in class 5. Their distribution is largely confined to the north-western and north-central Bantu area. One possible exception to this is Bolo (H23), for which Johnston gives two variant names, 'Libōlɷ' (presumably with a prefix of class 5) and 'Lubɷlu' (presumably class 11).[132] If the former prefix is correctly identified as that of class 5, the li-name distribution would extend to northern Angola, that is, slightly south of the rainforest area. The westernmost languages with li-names are Vanuma (D33) and Nyali (D33), given as 'Lɪ́vanumá' and 'Lɪ́nyàlì', respectively, by Tucker & Bryan (1957: 10), to which we can also add 'Lihuku' (D33) from Johnston's list. A somewhat uncertain li-name is Johnston's 'Esira' (B41), since the *e*-prefix in this name could well be that of class 7, not 5.

As mentioned, ki-names exhibit the widest distribution by far, while lu-names and li-names are geographically more restricted. Curiously enough, both of these latter distributions are on the whole continuous, which may be indicative of fairly recent spreads. Such interpretations are not devoid of problems, though. I return to this in chapter 5.

### 4.3.2 The distribution of infinitive classes

Another area where data have been fairly easy to obtain concerns the classification of infinitives. These are, in Bantu languages, treated as full-fledged nouns in that they are classified as nouns in the noun class system and thus they trigger agreement as do other nouns. A previous survey of infinitive classes was done by Růžička (1956), who compared the infinitive class of Kiswahili (G42) with 22 other Bantu languages. He left many questions unanswered but his distributional claims (idem: 63) seem on the whole to be consistent with mine.

132 Johnston (1922) does not give BM numbers for the prefixes. He does however segment the prefixes from the stems, or what he considers to be stems.

The most common infinitive class is undoubtedly noun class 15 (see figure 94), displaying a maximally wide distribution, though the denseness seems to a bit lower in the north-western area compared to other areas. In this latter area, we find a number of different infinitive classes, most notably class 5. Infinitive class 7 occurs, according to Guthrie (1971), in Fa' (A51), Kota (B25),[133] Tsaayi (B73), Kukwa (B77) and Ngondi (C11). All of these languages are located in the north-western Bantu area. Infinitive class 9 is restricted to the central north, specifically zone C, for instance, Ntomba (C35), Mbudza (C36) and Nkutšu (C73).

Among seemingly odd infinitive classes, we find class 19 in Mahɔngwe (B25). However, Jacquot's (1983: 255) identification of the infinitive class could well be wrong. He gives a prefix *i-* with a fragmentary set of concords based on *l(i)-*, which is identical to a likewise fragmentary set of concords for class 11 (idem: 174). For the closely related Southern Ndasa (B25), he gives a class 19 prefix *li* without any concords (idem: 172). This is seemingly related to Jacquot's claimed class 19 in Mahɔngwe. However, as for *li-* being a prefix of class 19, Grégoire (1994: 23) rejects this analysis "since a change from $*p > l$ is quite impossible."

Another seemingly odd infinitive class we find in Tsɔgɔ (B31), where class 8 is used. This is ordinarily a plural class, although a singular class 8 is not completely unheard of in the area (see previous section for data on this). The use of a singular class 8 might possibly be a reflection of an earlier use of class 7, since class 8 is otherwise the most common plural of class 7.

There is some degree of uncertainty with regard to the proper BM numbering of the infinitive class in a handful of languages, since some authors give infinitive prefixes without assigning them BM numbers. Thus Lafon (1991: xxi) gives an infinitive prefix *hu~hw~u-* for Shingazidja (G44a). Presumably it is that of class 15, since he makes otherwise no mention of class 15. Similarly for Kimatuumbi (P13), Odden (1996: 55f) gives an infinitive prefix *kṵ-* without identifying it as that of class 15 (which it most probably is). Guthrie (1971: 37) gives an unidentified infinitive prefix *u-* for Yaa (B73). In Ifumu (B77), too, there is a *u-*prefix employed (Calloc'h 1911: 37). Both of these *u-*prefixes could have been analysed as those of class 15, or maybe 14=15 mergers, had it not been for the complicating fact that classes 14 and 15 are employed separately in at least Ifumu with the prefix forms *bu-* and *ku-* respectively (see Calloc'h 1911: 14+16f). As for Yaa, according to Guthrie's (1971: 37) claimed sound laws, the form of the class 15 prefix should have been *ku*; that is, Proto-Bantu **k* should be retained in this particular context. On the other hand, the prefix of class 7 should also have retained its initial plosive; that is, it should have had the form *ki*, but Guthrie (idem) gives nonetheless an *i-*

133 This is contradicted by Jacquot (1983: 277); see further below.



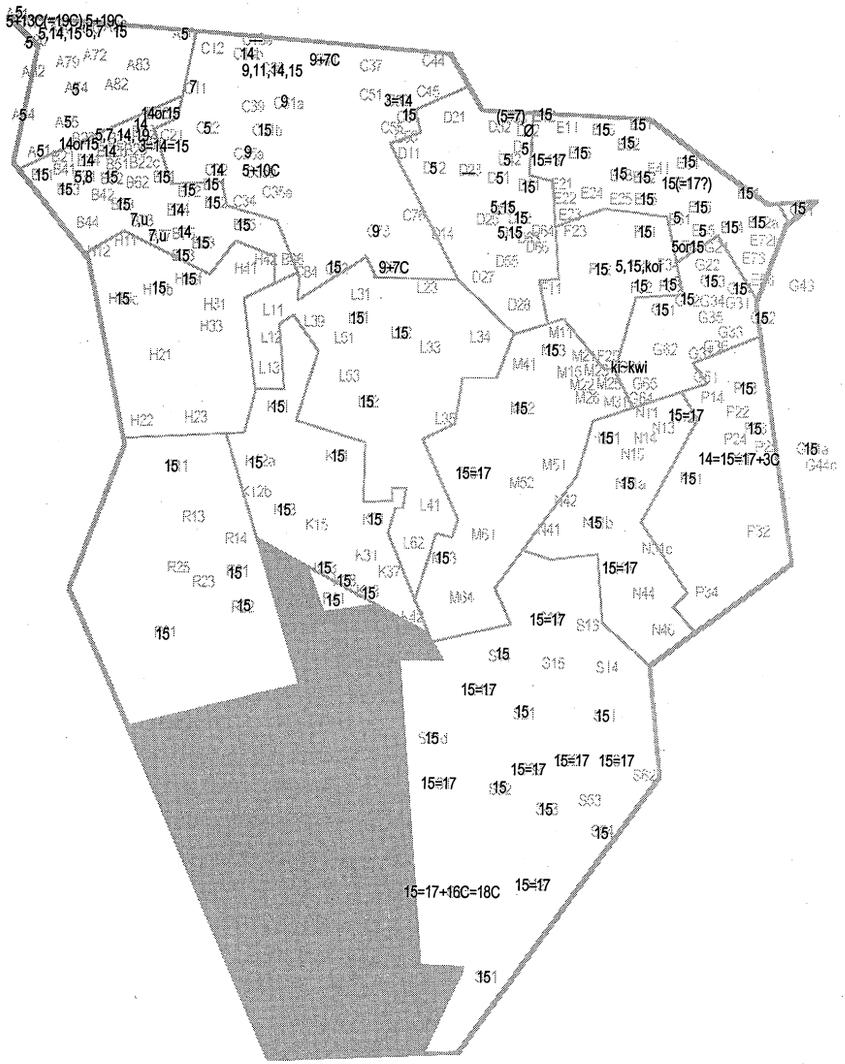



Figure 94 The distribution of infinitive classes
"C" = concords; "—" = no infinitive class.

prefix for class 7.[134] One possible solution to this would be that the *u*-prefixes have been borrowed from closely located languages that employ class 14 as infinitive classes, for instance, Ndzindziu (B74), Tio (B75), or other languages of zone B further north.

There are also seemingly contradictory claims in the literature. For instance, Guthrie (1971: 34) claims that Western Kɛlɛ (B22a) employs noun class 15 as the infinitive class. This is refuted by Jacquot (1983: 203) who identifies it as class 14 instead. The latter source gives the prefix form *u-* for class 14, which according to Guthrie's claimed sound law $*k > \phi$ for this particular language should be the form of the class 15 prefix. Tucker & Bryan (1957: 53) give class 15 as the infinitive class in Chaga (E62), while Guthrie (1971: 46) says infinitives are found in class 5. Perhaps they are dealing with different dialects. Unfortunately, none of them provide any examples. However, one and the same language can use more than one infinitive class. In a few languages, we find both classes 5 and 15 used interchangeably as infinitive classes. These seem to be found exclusively in the north-eastern area, particularly zones D and F (see Forges 1983), for instance, Nilyamba (F31).

*ikhenga* — Nilyamba (Forges 1983: 260)
i khenga
NP.5 supporter, subir (Fr.)
'to support, to undergo'

*kukhenga*
ku khenga
NP.15 supporter, subir (Fr.)
'to support, to undergo'

There is also an infinitive prefix *ki~kwi-* (most probably a merger of the prefixes of classes 5 and 15) and thus we find, in addition to the above-exemplified forms, also the form *kwikhenga*, meaning the same as the above. A *kwi*-like prefix is also found in Sango, *koi-*, at least according to Guthrie (1971: 51). Forges (1983: 262) finds no conclusive support for this. Nevertheless, if it exists, it too is likely to be composed of a class 15 prefix superimposed on a class 5 prefix.

### 4.3.3 The distribution of diminutive and augmentative classes

As for distributions concerning classes used for secondary classification, I will here concentrate on diminutives and augmentatives, the two most common secondary functions for noun classes. Interestingly, none of the secondary noun class functions have maximally wide distributions, whatever implications that may have. This I return to in chapter 5. As was already discussed in chapter 3, very often the same class is used for diminutives in one language and augmentatives in another language, although not without interesting distributional patterns emerging from a comparative study. There are also marginal occurrences of one and the same class being used in both functions within the same language. I will address both issues below.

Starting with the diminutive classes, class 12 is clearly the most frequent and widespread diminutive class (see figure 95). As such it is found in non-rainforest languages. The most interesting distributional patterning concerning diminutive class 12, however, is visible only in figure 96. There I have added data regarding those languages where I have been able to secure data about the use of class 12 as a primary class. Map entry points marked with "+DIM" refers to languages where class 12 is used as a primary class for non-diminutive nouns as well as functioning as a secondary (diminutive) class for non-12 nouns, while map entry points marked with "-DIM" refer to languages where class 12 fulfils a secondary (diminutive) function only.[135] The distributional patterning that thus emerges is very neat. With the exception of Kimbundu (H21) and Hungu (H33), all -DIM languages are found along the upper eastern coast and upper south stretching towards central south-west, while all +DIM languages are found along a continuous belt stretching from the non-coastal extreme north-east through the central Bantu area all the way to the south-west. Judging from this "nice" patterning, one would assume that the -DIM feature is older, since it occurs at the margins and forms a less continuous distribution than the +DIM feature.

Returning to the distribution in figure 95, another fairly common diminutive class is that of singular class 19. It is chiefly found within the rainforest area, in pairings 19/13 or 19/8. The only attested non-rainforest occurrence we find in Karanga, in the rare pairing 19/14. Other common diminutive classes include class 7 found chiefly in east coast languages, and in Boma (B82) and Kikongo (H16b) in the south-western rainforest area. Diminutive class 11 is found in five western Bantu languages as well as Tshivenda (S21) and Shambaa (G23). Also other classes are used. Diminutives formed with full or partial word meaning 'child' are found chiefly in rainforest languages, but a couple of occurrences are also found in two east coast languages, Emakhuwa (P31) and Lomwe (P32). This is seen in figure 97, which also shows that the use of full words is largely restricted to the

[134] Guthrie's (1971) claimed sound laws seem first and foremost to be generalized from lexical data, so perhaps grammatical prefixes behave differently. Evidence to that effect is discussed by Warnier (1979).

[135] The notation derives ultimately from Guthrie (1971: 29), who uses "+*dim*" as I use "+DIM" here. To this I have added "-DIM".

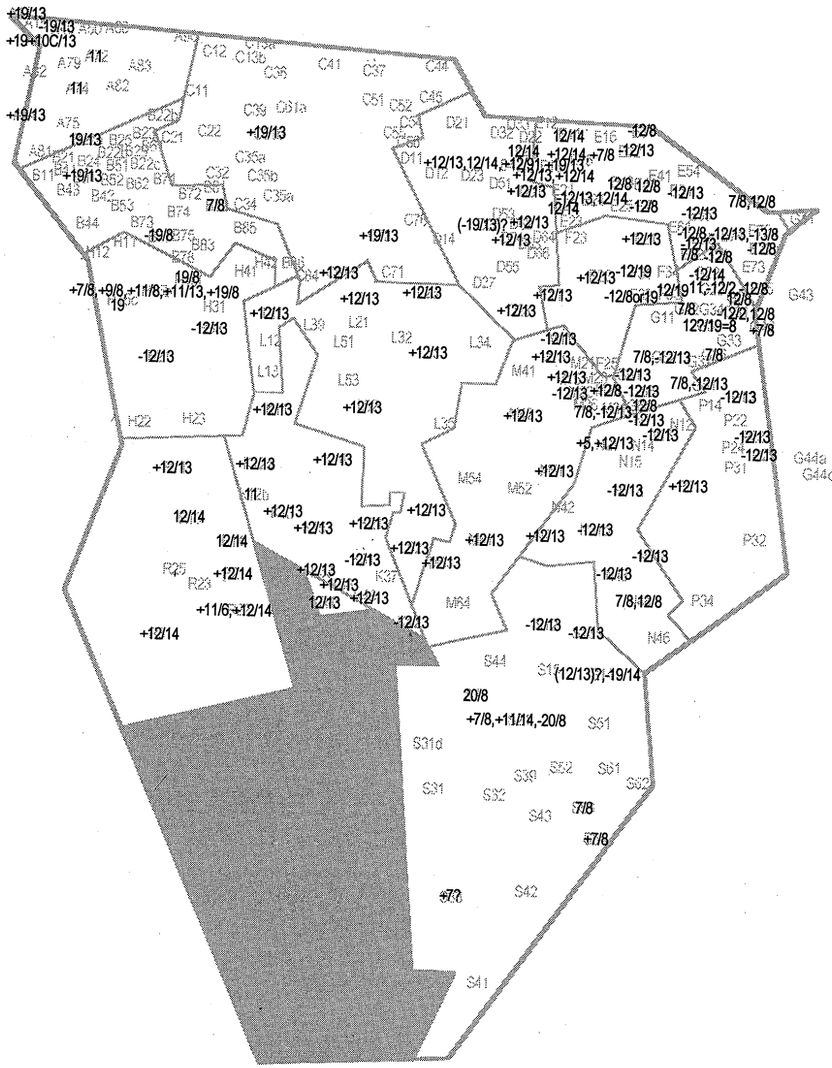


Figure 95 The distribution of diminutive classes
"C" = concords; "+" = the diminutive class is used for primary as well as secondary classification; "-" = the diminutive class is used for secondary classification only; data on concords are here ignored.



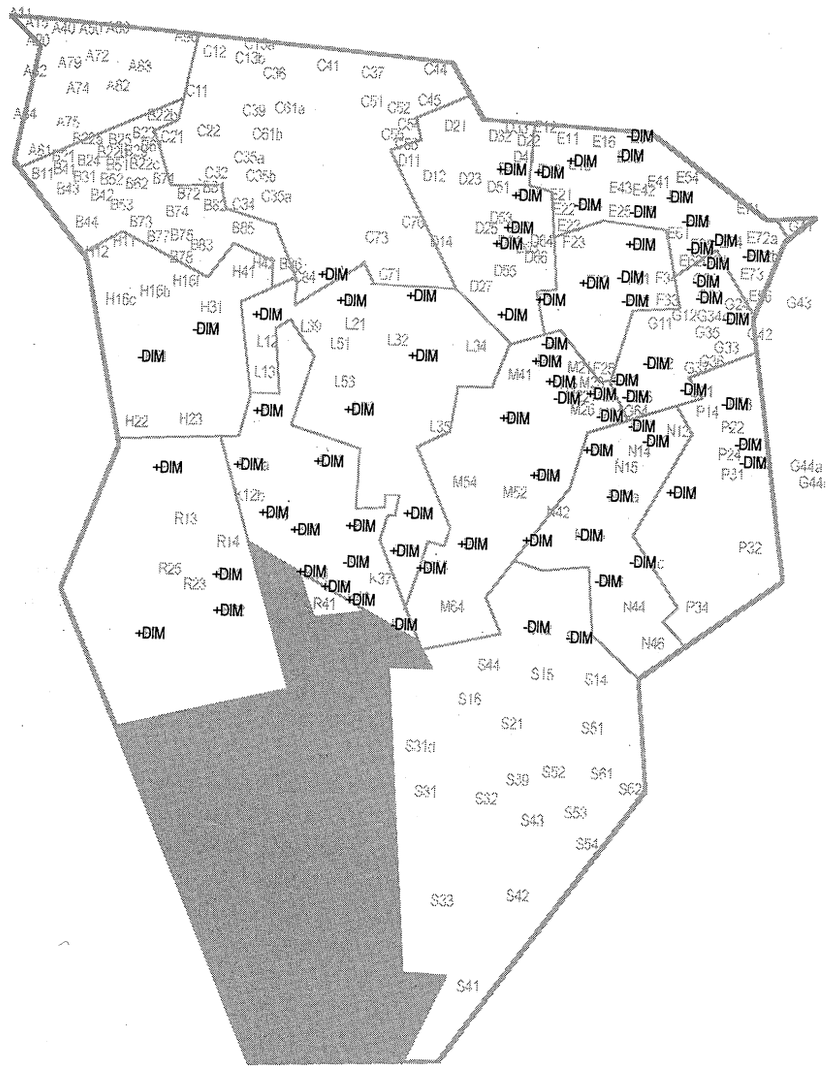


Figure 96 The distribution of diminutive class 12 (simplified)
"+" = class 12 is used for primary as well as secondary classification; "-" = class 12 is used for secondary classification only.

rainforest area.

The full distribution of augmentative classes (seen in figure 98) has a distribution similar to the diminutives. The most common and widespread augmentative classes are 5 and 7. Neither of these classes has distribution that is maximally wide, though. In fact, no augmentative class does. However, the respective distributions of augmentative classes 5 and 7 seem to complement one another fairly nicely, as figure 98 shows. While the former is found chiefly in the north-east, lower south-west and upper south, the latter is chiefly found stretching from the north-west towards the east, central and south-west. Their respective distributions are also on the whole continuous, which is not true for class 3, which shows a very spotty distribution, though largely confined to the eastern Bantu area. One seemingly very odd augmentative class is found in Nyekyosa (M31), where class 12 is used (Kadima 1969: 158). Interestingly, it has a diminutive function too (idem: 152; Guthrie 1971: 56; see also figure 95).

If we look at individual classes and what secondary functions they fulfil, we can note that the secondary use of class 5 is almost exclusively augmentative (see figure 99), except in Tumbuka (N21) where "[o]ccasionally diminution is expressed in this class" (Vail 1971: 45). Apparently this occurs only with mass nouns of class 6, for instance, *lihala* 'slightest wisdom' derived from *mahala* 'wisdom' and *likani* 'small, trivial talk' derived from *makani* 'discussion'; possibly this should not be labelled 'diminutive' at all. (Compare what was said about singular class 13 earlier in this chapter. Recall also the discussion about grammatical number in chapter 3.)

As for the secondary use of class 7, this is not restricted to augmentatives. Quite a number of languages employ class 7 as a secondary class for forming diminutives (see figure 100). The respective distributions of augmentative and diminutive uses of class 7 resemble the +DIM and -DIM distributions of class 12 mentioned above. Diminutive class 7 is largely an east coast phenomenon, with two north-western occurrences in Kikongo (H16b) and Boma (B82). The distribution of augmentative class 7 resembles the +DIM distribution of class 12 in figure 96 except that the latter is not found in the north-west.

The distribution of secondary uses of class 11 is also interesting (see figure 101). While the augmentative distribution is roughly concentrated in a narrow belt stretching from the north-east south-westwards through the central Bantu, the diminutive distribution is chiefly located along the westernmost Bantu area, excepting Tshivenda (S21) and Shambaa (G23). In the latter language, class 11 apparently has two secondary functions, that is, diminutive as well as augmentative (Kadima 1969: 153+157).

The distribution of secondary uses of class 20 is a nice example of a triple-



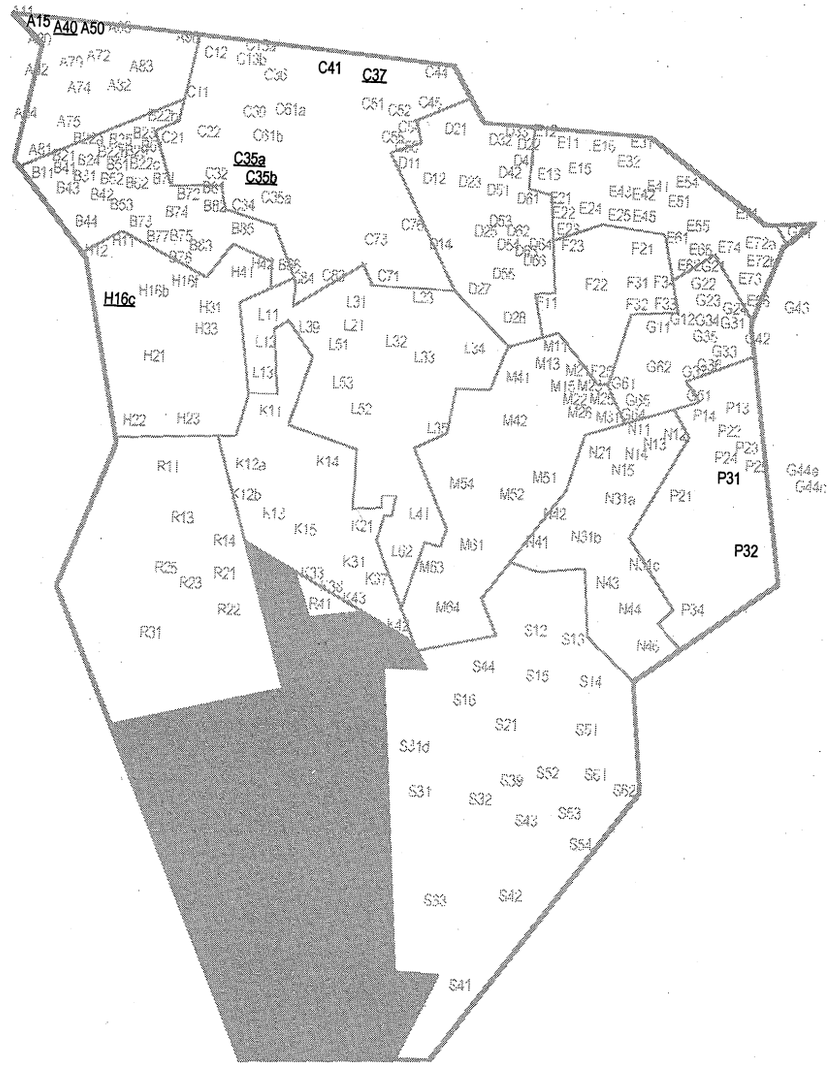



Figure 97 The distribution of diminutives formed with a full or partial word for 'child'
Underlining indicates the use of full words.

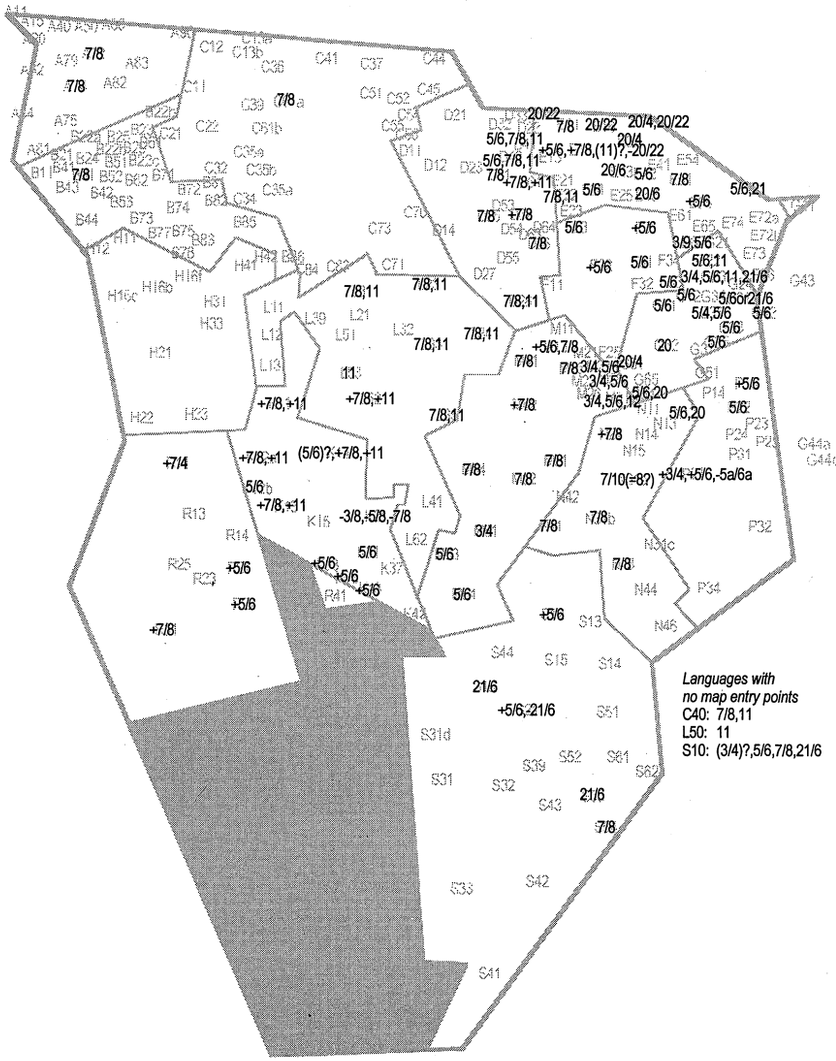



Figure 98 The distribution of augmentative classes
"+" = the diminutive class is used for primary as well as secondary classification ; "-" = the diminutive class is used for secondary classification only; data on concords are here ignored.



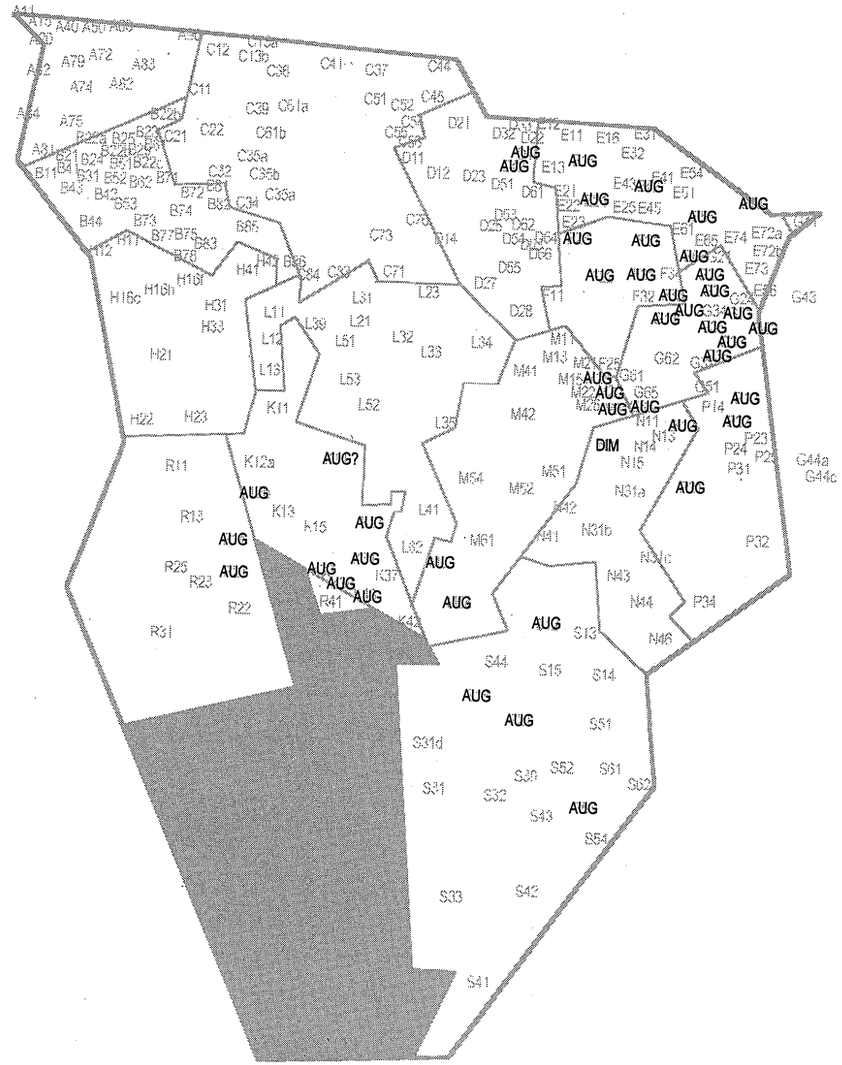


Figure 99 The distribution of class 5 used for augmentative and diminutive purposes
Includes the distribution of augmentative class 21.

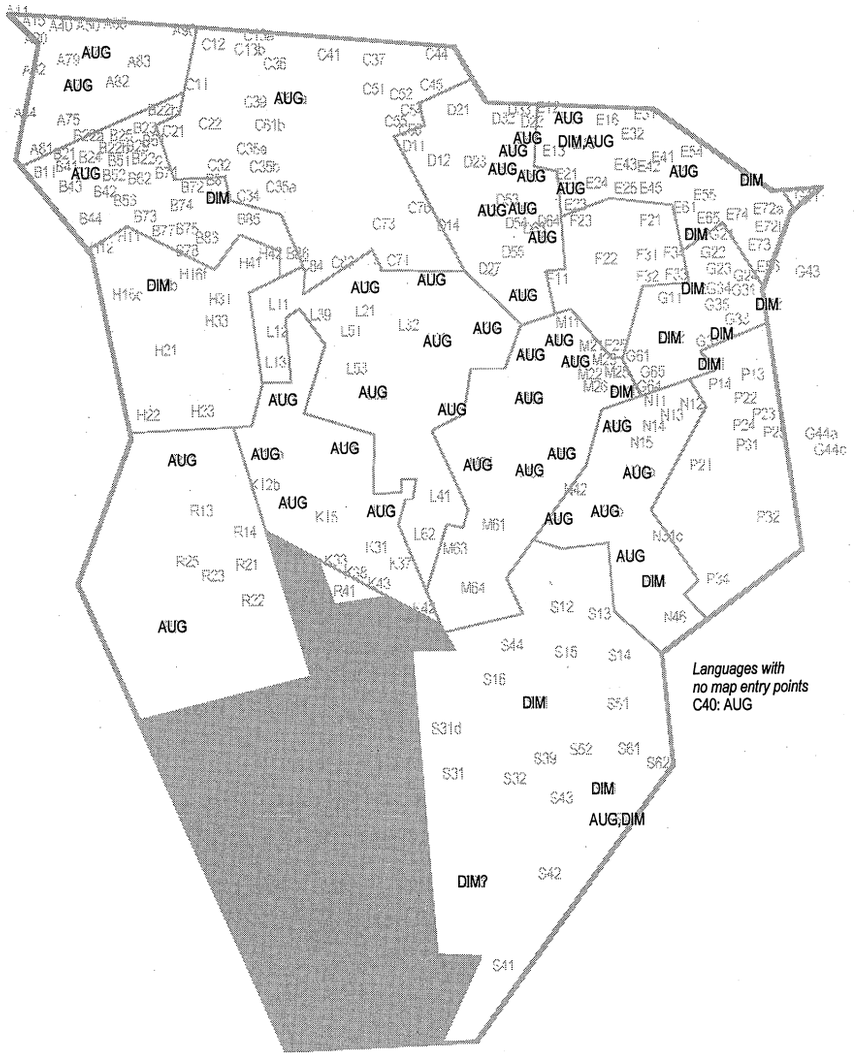



Figure 100 The distribution of class 7 used for augmentative and diminutive purposes



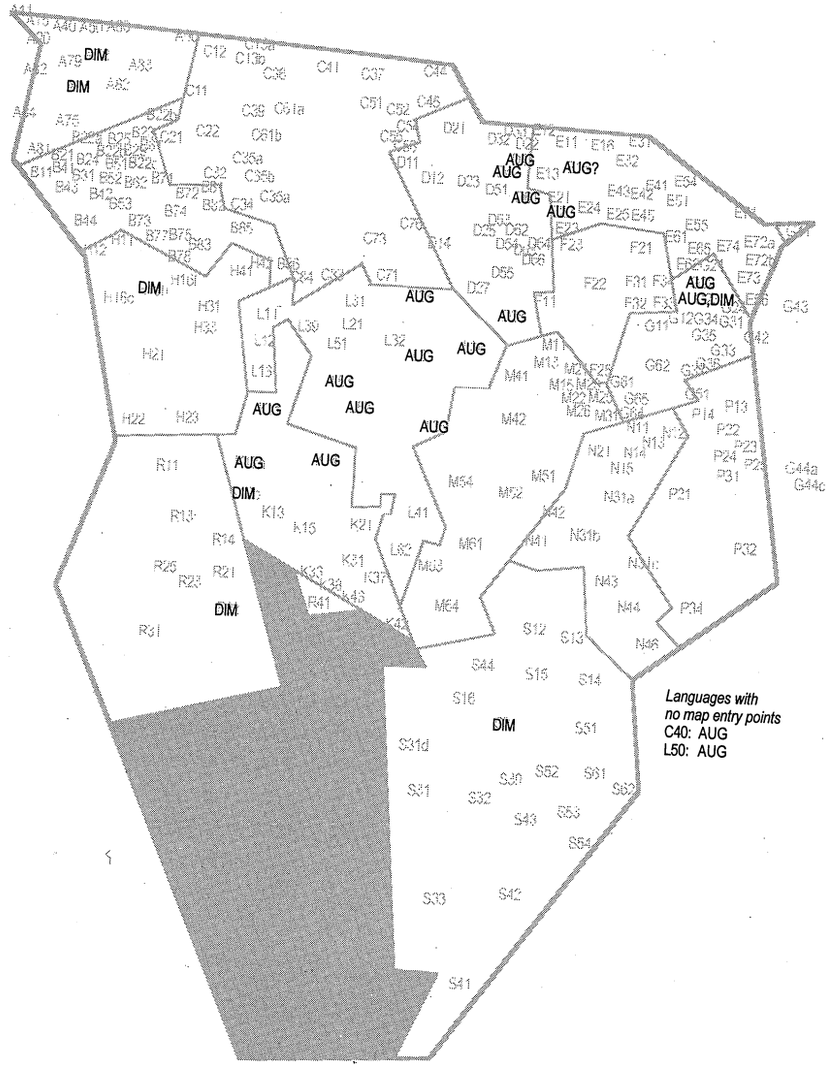



Figure 101 The distribution of class 11 used for augmentative and diminutive purposes

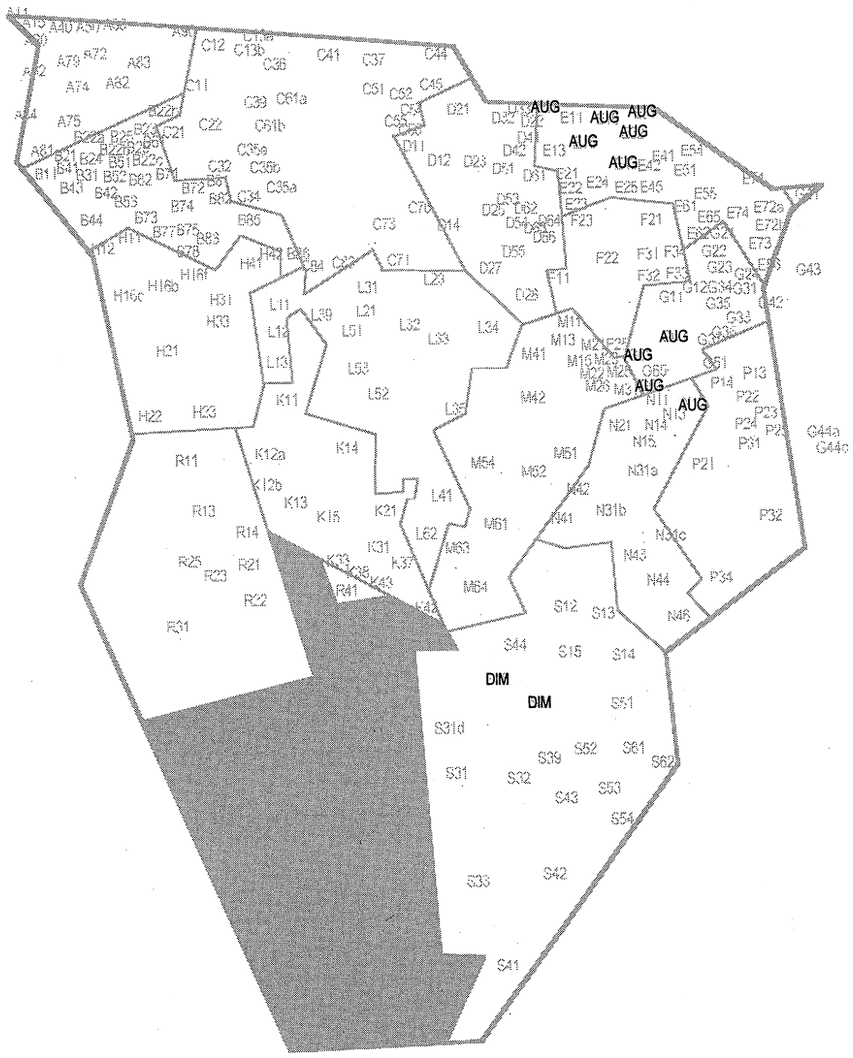



Figure 102 The distribution of class 20 used for augmentative and diminutive purposes



distribution (see figure 102). Two well-demarcated distributions of diminutives are found in the north-east, and a small augmentative distribution is located in the upper south.

## 4.4 A summary of distributions

The sections above have revealed quite a number of putative coherence areas. In this concluding section, I will summarize the most obvious ones (as well as some not-so-obvious ones). I have organized the presentation here roughly in order of geographical scope. I first summarize the widest distributions, that is, those that are maximally wide and those that are almost maximally wide. Then follows a run-through of the more restricted distributions. I reserve the term 'coherence area' for these non-maximal distributions. Even though several distributions with similar patternings are jointly described below, there are no historical claims to be attached to this, at least not by default (see next chapter on this issue).

A number of putative coherence areas are listed in the four tables in figures 104-107. Note that the geographical indicators provided in these tables are rough and impressionistic approximations only. The full attested distributions can be seen in the figures discussed above, which are referred to in the tables with superscript numbers.

There are some noteworthy problems to remember when talking about putative coherence areas. The degree of spottiness or denseness is by necessity a major factor in deciding what to consider as a coherence area. I have been fairly generous in the discussion that follows, which means that others may want to exclude some of those that I have identified. Thus I have added numbers in parentheses following the geographical indicators in order to show how many times any given noun class feature has been plotted into any particular map. These provide a simple indication as to the number of languages involved in any putative coherence area.

### 4.4.1 The widest distributions

The table in figure 103 summarizes the most widely attested distributions. Maximally wide and (fairly) dense distributions include those of pairings 1/2, 3/4, 5/6, 7/8, 9/10, 11/6, 11/10 and 14/6, as well as the distributions of class 1a and infinitive class 15. The distribution of type 1A noun class systems also belongs here. Among very wide distributions we find those of pairings 9/6 (lacking in the central north, parts of upper north-east, central east, upper south as well as the south-west), 12/13 (lacking in north-west, central north and south), 15/6 (lacking in

| MAXIMALLY WIDE AND VERY DENSE | VERY WIDE AND FAIRLY DENSE |
|---|---|
| type 1A noun class systems | 3≈14, 9/6, 15/6, 16, 17 and 18 |
| 1/2, 1a, 3/4, 5/6, 7/8, 9/10, 11/6, 11/10 and 14/6 | augmentative use of class 7 |
| infinitives in class 15 | ki-names |

Figure 103 The most widely occurring noun class features

central north, south and most of central east), locative classes 16, 17 and 18 (lacking in the central north), ki-names (lacking in the central north and most of upper north-west), mergers and near-mergers involving classes 3 and 14 (lacking in the south and most of north-west), and the augmentative use of class 7 (lacking in most of the south and central north). There are other distributions, too, which can be characterized as very wide but which are too spotty for inclusion here, like that of pairing 1/6, found in some ten languages scattered over most of the Bantu area (recall figure 54).

The rest of this section deals with non-maximally wide distributions, specifically those that show some kind of identifiable geographical patterning. The order of presentation is ad hoc.

### 4.4.2 Distributions with a northern bias

A number of noun class features exhibit distributions with a more or less clear northern bias. These are reproduced in a highly abstracted form in figure 108. Some are exclusively found in the northern area, others have outliers further south. The only distribution covering the entire north is that of pairing 11/4, for which there exists at least one outlier, Siyeyi (R41); to this we could possibly also add Rukwangali (K33), depending on whether or not one recognizes a 4=10 merger in this language. Other northern distributions are found only in parts of the northern area.

Concentrated in the north-west, we find a whole bunch of putative coherence areas, such as the distributions of pairings 7/4, 14/2≠6,[136] 15/4 and 19/8, the singular use of class 8, full mergers involving classes 1 and 3, as well as the infinitive use of classes 7 and 14. Some of these distributions may be counted as western rather than strictly north-western. Most 7/4 pairings are found in the north-west (some derive from 4=8 merger), but also in Umbundu (R11) and Siyeyi (R41), while pairing 15/4 is found also in Siyeyi and Luba-Katanga (L33). Most

136 Meaning that classes 2 and 6 have not merged.



| PUTATIVE COHERENCE AREAS | | OUTLIER(S) |
|---|---|---|
| *Noun classes and noun class pairings* | | |
| 1/4 [54] | north-west and central north (9) | Tshivenda, Isizulu |
| 1a/2b [57] | south-west and south (17) | Mbɛnɛ |
| 3/2 [58] | north-west and central north (10) | Umbundu, (Kete) |
| 3/6 [58] | a) north-west (12)<br>b) lower north-east (5)<br>c) upper south + Siyeyi (4) | Lombo, Nyali, Umbundu |
| 3/10 [58] | a) north-west, central north + Bembe (5)<br>b) lower central (3) | |
| 5/2 [61] | north-west, central north (10) | Umbundu, (Kinyamwezi) |
| 5/4 [61] | a) north-west (9)<br>b) coastal north-east (3) | |
| 5/10 [61] | a) north-west (7)<br>b) western south and Siyeyi (3) | (Umbundu?) |
| 7/4 [64] | north-west (6) | Umbundu, Siyeyi |
| 7/6 [64] | a) north-west (10)<br>b) central and non-coastal east (9) | Sekgalagadi, Siyeyi |
| 7/10≠8 [64] | a) north-west and central north (5)<br>b) lower central and Sekgalagadi (3) | (Remi?), (Chinyanja?) |
| 8=D/A [67] | eastern areas + Silozi and Siyeyi (26) | Mɔngɔ, Nkutšu |
| 8 sg [68] | north-west (7) | |
| 9/2 [69] | a) north-west (6)<br>b) central (4) | Kinyamwezi |
| 10 sg [72] | north-west, central and north-east (23) | Kimatuumbi |
| 11/2 [74] | a) lower north-west (5)<br>b) south-west (2) | |
| 11/4 [74] | northern areas (13) | Siyeyi, (Rukwangali?) |
| 11/8≠10 [74] | a) north-west/central west (2)<br>b) lower central (3) | |
| 11/13 [74] | western areas (7) | |
| 11/14 [74] | north-east (7) | Tshivenda |
| 12/6 [77] | a) lower north-east /upper central east (5)<br>b) south-west (2) | |
| 12/8 [77] | north-east (16) | (Sena?) |

Figure 104 Candidates for coherence areas (I)
Superscript numbers refer to previous figures where the distributions are shown in full. Numbers in parentheses indicate how many map entry points have been marked for any given feature. The geographical pointers are only approximate.

| PUTATIVE COHERENCE AREAS | | OUTLIER(S) |
|---|---|---|
| *Noun classes and noun class pairings (cont.)* | | |
| 12/13 [77] | north-east, central, central east and north-east (76) | |
| 12/14 [77] | a) north-east (14)<br>b) south-west (7) | |
| 13 sg [79] | a) western areas (5)<br>b) north-east (4) | |
| 14/2≠6 [80] | lower north-west (3) | Siyeyi |
| 14/4 [80] | a) north-west (7)<br>b) lower north-east/upper central east (6)<br>c) south-west (3) | |
| 14/10 [80] | north-east (9) | Myɛnɛ, Siyeyi, Isizulu, (Icibemba) |
| 15/4 [15] | lower north-west (5) | Luba-Katanga, Siyeyi |
| 19 pl [86] | north-east (6) | Myɛnɛ, (Silozi?) |
| 19/8 [86] | lower north-west (7) | (Àsém) |
| 19/13 [86] | north-west and central north (23) | (Karanga has 19/14) |
| 20 [88] | a) upper north-east (8)<br>b) upper central east (4)<br>c) upper south (2) | |
| 22 [88] | north-east (5) | |
| 23 [90] | a) north-east (7)<br>b) south (4) | Myɛnɛ |
| *Mergers and near-mergers* | | |
| 1=3 [55] | lower north-west (6) | (Lingala), (Lamba has 1C=3C) |
| 2=6 [56] | central north (12) | Umbundu |
| 2C=6C [56] | central east (3) | |
| 3≈11 [59] | a) north-west (5)<br>b) east coast (3) | Holu |
| 3=14 [59] | north-west and central north (12) | Umbundu |
| 3C=14C [59] | a) central (9)<br>b) central east and north-east (12) | |
| 4=8 [60] | north-west (3) | Umbundu |
| 4≈8 [60] | western areas (13) | Emakhuwa |

Figure 105 Candidates for coherence areas (II)
Superscript numbers refer to previous figures where the distributions are shown in full. Numbers in parentheses indicate how many map entry points have been marked for any given feature. The geographical pointers are only approximate.



| PUTATIVE COHERENCE AREAS | | OUTLIER(S) |
|---|---|---|
| *Mergers and near-mergers (cont.)* | | |
| 4C=9C [60] | central and upper non-coastal east (29) | Shingazidja, Isizulu, Ngwi, Budya |
| 4≈10 [60] | a) central (9)<br>b) south-west (5) | Emakhuwa, Lokele, (Tùnɛn) |
| 5=11 [62] | a) lower north-west (7)<br>b) south (4) | (Nyungwe has 5C=11C) |
| 7≈9 [65] | a) central north (12)<br>b) central east (2) | Londo |
| 8≈10 [66] | eastern areas + Silozi and Cisubiya (24) | Lombo, Lokele, Umbundu, Ngwi |
| 9=10 [70] | a) north-west (14)<br>b) central (8)<br>c) north-east (2) | Kimatuumbi |
| 11=14 [75] | north-east + Shingazidja and Shimaore (5) | Myɛnɛ |
| 15≈14 [84] | a) lower north-west (8)<br>b) central east (2) | |
| 15=17 [84] | eastern areas (13) | |
| *Classes used for infinitives* | | |
| INF:5 [94] | a) north-west (14)<br>b) north-east (11) | |
| INF:7 [94] | north-west (5) | |
| INF:9 [94] | central north (6) | |
| INF:14 [94] | western rainforest + Soko (14) | |
| *Classes used for diminutives* | | |
| DIM:7 [100] | a) eastern north-east + Luganda (9)<br>b) south + Sena (4)<br>c) lower north-west (2) | |
| DIM:11 [101] | western areas (5) | Tshivenda, Shambaa |
| DIM:19 [95] | north-west and central north (14) | Karanga |
| DIM:20 [102] | upper south (2) | |
| DIM:child [97] | a) north-west (3)<br>b) central north (4)<br>c) central east (2) | Kiyombe |

Figure 106 Candidates for coherence areas (III)
Superscript numbers refer to previous figures where the distributions are shown in full. Numbers in parentheses indicate how many map entry points have been marked for any given feature. The geographical pointers are only approximate.

| PUTATIVE COHERENCE AREAS | | OUTLIER(S) |
|---|---|---|
| *Classes used for augmentatives* | | |
| AUG:5 [99] | a) north-east and upper central east (30)<br>b) lower central and upper south (15) | |
| AUG:7 [100] | a) rainforest (5)<br>b) upper non-coastal east, central and south-west (37) | Xironga |
| AUG:11 [101] | central and north-east + S. Binja (19) | |
| AUG:20 [102] | a) north-west (6)<br>b) upper central east (4) | |
| *Language names* | | |
| lu-names [93] | western and northern areas (31) | Tshivenda |
| li-names [93] | north-west and central north (13) | (Bolo) |
| *Noun class system types* | | |
| Type 2 [46] | lower central (5) | (Kimakonde?) |
| Type B [46] | a) lower central (6)<br>b) upper north-east (17)<br>c) ? lower north-west (2) | Siswati |
| Type C [46] | upper central north + Amba (5) | |

Figure 107 Candidates for coherence areas (IV)
Superscript numbers refer to previous figures where the distributions are shown in full. Numbers in parentheses indicate how many map entry points have been marked for any given feature. The geographical pointers are only approximate.

14/2≠6 pairings are found in the lower north-west, with one outlier in Siyeyi (R41), but if we add also those languages where classes 2 and 6 have merged, the distribution grows into a spotty western phenomenon. Mergers and near-mergers involving classes 4 and 8 are found in large parts of the western area (as noted already), but only in the north-west and Umbundu (R11) do we find full mergers of these classes.

Extending our geographical focus to include the central north, that is, covering an area denotable as 'the rainforest area', we can note the distributions of pairings 1/4, 3/2, 5/2 and 19/13, full mergers involving classes 3 and 14, the diminutive use of class 19, preposed diminutive markers consisting of a full word meaning 'child' as well as li-names (language names classified in class 5). There are some important outliers to be noted here. Pairing 3/2 as well as full 3=14



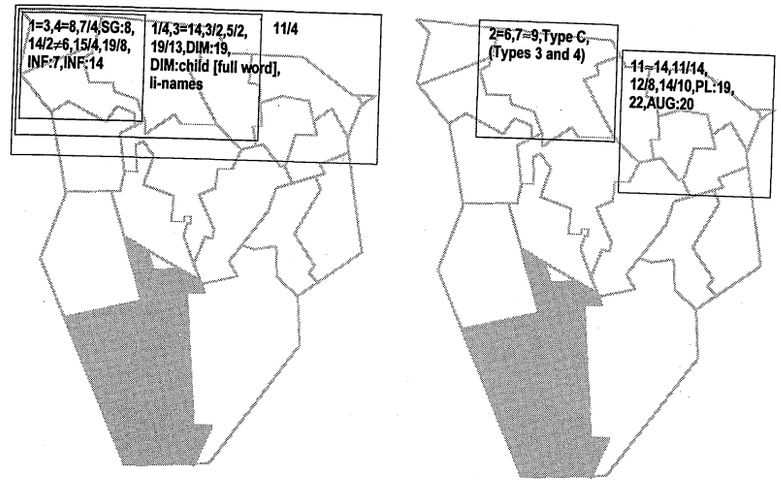



Figure 108 Some northern-biased distributions (ignoring outliers)

mergers are also found in Umbundu (R11), while diminutive class 19 is also found in Karanga (S14). A 5/2 pairing is also found in Kinyamwezi (F22).[137] A non-rainforest li-name is possibly found in Bolo (H23), but since this particular data derives from Johnston (1922) it is partly unreliable (see earlier discussion). Preposed diminutive markers derived from words for 'child' are also found in the central east, specifically in Emakhuwa (P31) and Lomwe (P32), but these markers do not consist of full words.

Distributions found only in the central north include those of mergers and near-mergers involving classes 7 and 9 and full mergers involving classes 2 and 6. Also the C-type concordial systems seem concentrated here, but this I feel is simply due to lack of data from the north-west. Attested 3- and 4-type noun prefix systems are also from the central north, but could perhaps extend further to the west. Their respective occurrences are too few and restricted for safe conclusions, though. They seem in any case to be northern rainforest phenomena at the least.

Concentrated in the north-east, we find, for instance, the distribution of class 22 in the upper (or extreme) north-east and the augmentative use of class 20, the latter of which is concentrated in two areas. The use of plural class 19 seems largely restricted to a handful of north-eastern languages, with Myɛnɛ (B11), which exhibits a 10=19 merger, being a north-western outlier. Its occurrence in

[137] The 3/2 and 5/2 pairings are discussed more below in connection with western-biased distributions.

Silozi (K21) seems uncertain (see earlier discussion). The distributions of pairings 11/14 and 12/8 are also largely north-eastern. The former has one outlier, Tshivenda (S21), and the latter may have an outlier, Sena (N44). Kadima (1969: 153) claims a 12/8 pairing while Guthrie (1971: 59) says class 12 does not exist in this language. The densest distribution of pairing 14/10 is found in the north-east, but there are also four outliers scattered widely across the Bantu area, so it is not strictly an exclusively north-eastern phenomenon.[138]

Mergers and near-mergers involving classes 11 and 14 are also concentrated to the north-east, specifically eastern north-east and the Comoro Islands. One outlier is that of Myɛnɛ (B11), a language in which we find an attested full merger of classes 1, 3, 11 and 14 (Jacquot 1983: 9). In Holu (L12), there is a near-merger 3C=11C also involving class 14.

A few distributions are found in the north-west and north-east but not in the central north. Abstracted overviews of these distributions are shown in figure 113 (which is discussed further below). These include those of pairing 5/4, mergers and near-mergers involving classes 3 and 11 (full mergers of which are only found in the extreme north-west), as well as the infinitive use of class 5. The only outlier to these areas is the 3C=11C merger found in Holu (L12).

### 4.4.3 Distributions with a southern bias

Curiously, there is only one noun class feature that is found exclusively in the south, namely, that of diminutive use of class 20 found in Tshivenda (S21) and Ikalanga (S16); see figure 109. A distribution with a largely southern distribution, but one that is also found in the south-west, is that of pairing 1a/2b. The distribution is fairly continuous and there is only one attested outlier, Mbɛnɛ (A43).[139]

[138] It might be interesting to add a note here about Ma'a (Mbugu), which is a so-called mixed language (see Thomason 1983; and Mous 1994; 1996). It is not among the sampled languages. If it had been, its map entry point would have been located somewhere near map entry points G22 and G23. Its typological peculiarity is that the "system of affixes associated with nouns, adjectives and verbs can be regularly correlated with the systems operating in neighbouring Bantu languages" (Whiteley 1960: 96). The stems and roots, on the other hand, are derived from a number of different sources, but especially some unspecified Cushitic languages (see Mous 1996). Thus we have here a language consisting, roughly, of a Bantu grammar with a Cushitic vocabulary. The noun class system of Ma'a looks typically like a type 1A system. There is a set of noun prefixes marking at least 14 noun classes and there is a concordial system marking the same distinctions. Whiteley (1960: 96f) gives the noun class pairings 1/2, 3/4, 5/6, 7/8, 9/10, 11/10, 12/8 and 14/10. Pairings 12/8 and 14/10 are such that are typical north-eastern distributions. Thus Ma'a seems to fit in well into the area where it is found. In fact, there seem to be no noun class features in Ma'a that makes it stand out among its neighbours; that is, there are no typologically displaced features in Ma'a. The data available to me is nowhere near complete, though.

[139] Although not surveyed systematically in the present study, the distribution of diminutive suffixes derived from a word meaning 'child' seems to show a distribution like that of pairing 1a/2b. Another feature showing a similar distribution is seasonal terms classified in class 17 (or 15=17); see chapter 3 on this.



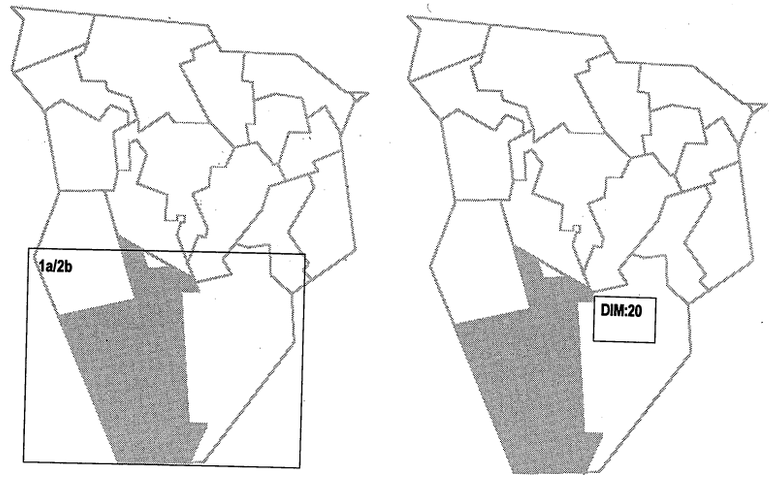



Figure 109 Some southern-biased distributions (ignoring outliers)

### 4.4.4 Distributions with a western bias

Seemingly western distributions include those of mergers and near-mergers involving classes 4 and 8, pairing 11/13 and the diminutive use of class 11 (see figure 110). Outliers found in the east include a 4C=8C merger in Emakhuwa (P31) as well as the diminutive use of class 11 in Tshivenda (S21) and Shambaa (G23). The distribution of pairing 13/6 is exclusively western (though spotty), but the whole distribution of singular class 13 also includes the north-east.

The distribution of pairing 15/4 is largely a western phenomenon. However, even though all attested occurrences are found exclusively in the western area, only two of them are found outside the north-west, for which reason its characterization as a western phenomenon is somewhat uncertain. (Thus it was added above as a north-western distribution.) Other western distributions, but which are either spotty or concentrated in two or more areas in the west, include those of 3(≠11)/10 and 11/8≠10.

There is one very interesting western phenomenon, namely, the plural use of class 2 in pairings other than that of 1/2, the joint distributions of which are shown in the right-hand map in figure 110. Some of the pairings involved could be explained by way of assuming prior mergers; for instance, a 2=6 merger could give rise to a 5/2 pairing. However, the distributions shown in figure 111 strongly contradict this. When looking at the left-hand map in figure 111, which shows the

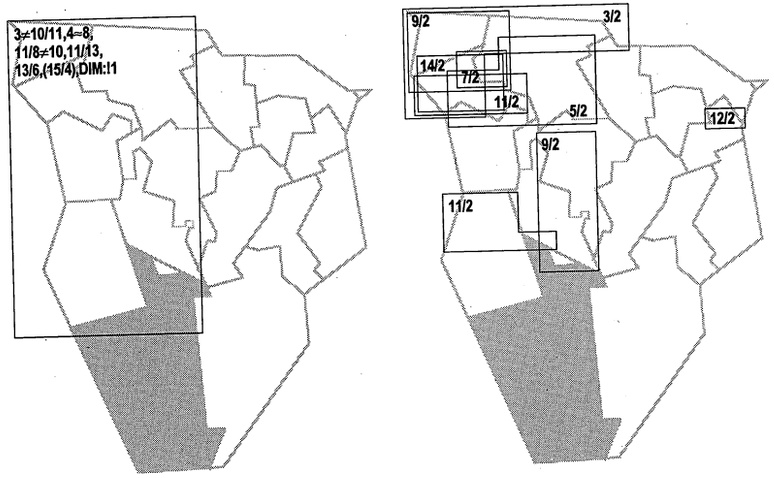



Figure 110 Some western-biased distributions (ignoring outliers)

joint distributions of merger 2=6 and pairing 5/2, it would be an even toss as to which has caused which. If we look at the joint distributions in the right-hand map instead, that is, those of merger 1=3 and pairings 3/2 and 1/4, it seems fairly clear to the present writer that it is the pairings which have caused the mergers, at least when it comes to these latter pairings. The distributions in question are explained most economically by assuming exactly this. Most likely, we can explain the occurrence of 2=6 mergers in the same way, that is, by assuming them to be derivatives of the 5/2 pairings, and more generally the western-biased preference for pairings with plural class 2. Moreover, this is likely to be the cause of noun prefix systems of type 2 (those using an over-generalized animate plural marker derived from the class 2 prefix), which were discussed in chapter 3.

### 4.4.5 Distributions with an eastern bias

Typically eastern distributions (figure 112) include those of mergers and near-mergers involving classes 8 and 10 as well as dental/alveolar class 8 prefixes (denoted as '8=D/A' in figures and tables); these distributions are probably related. Other eastern distributions include those of locative class 23, augmentative and diminutive use of class 20, and mergers involving classes 15 and 17. Locative class 23 is found in one north-western outlier, Mbɛnɛ (A43), while the possible outliers concerning the distribution of class 20, that is, Mbɛnɛ and Otjiherero (R31), have



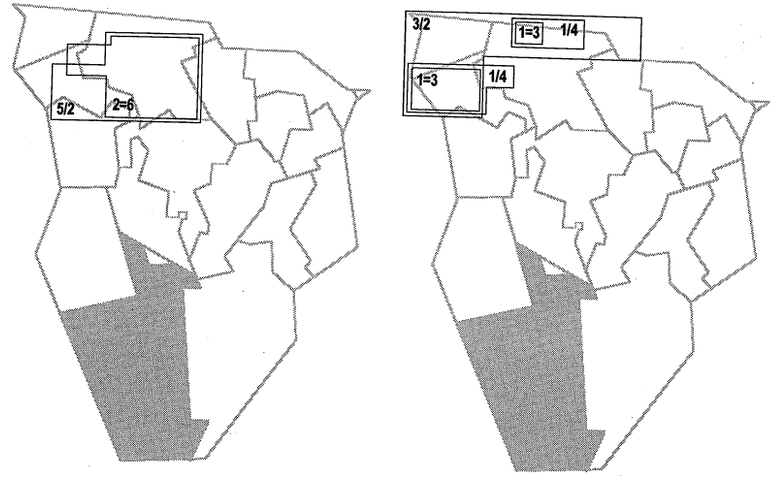



Figure 111 Distributions of pairings 3/2 and 5/2, and some mergers (ignoring outliers)

already been dismissed as such in the discussion above. The most interesting aspect of class 20 is its clear triple-distribution. There are two well-demarcated areas of augmentative use in the upper east (which were noted above as northern-biased distributions), and a third equally well-demarcated area of diminutive use in the upper south. They include only a handful of languages each, though; the last one has only two.

The distribution of diminutive class 7 has an eastern bias, which is also true for the -DIM distribution of class 12. Interestingly, there are two central western outliers to both of these distribution, though not in the same languages; Kikongo (H16b) and Boma (B82) are outliers to the former distribution while Kimbundu (H21) and Hungu (H33) are outliers to the latter. Another distribution with an eastern bias is that of augmentative class 5. (This extends, it should be noted, into the lower central area, too.)

Here is a good place to say something about Guthrie's East-West Divide, which was briefly discussed in chapter 2. I have used the designations 'eastern' and 'western' as geographical pointers only (hence decapitalized), while they apparently constituted genetically valid subgroupings for Guthrie (1971). Perhaps the most interesting support for a putative East-West Divide is the almost complementary distributions of mergers and near-mergers involving classes 8 and 4 in the western Bantu area and classes 8 and 10 in the eastern area. The overlaps

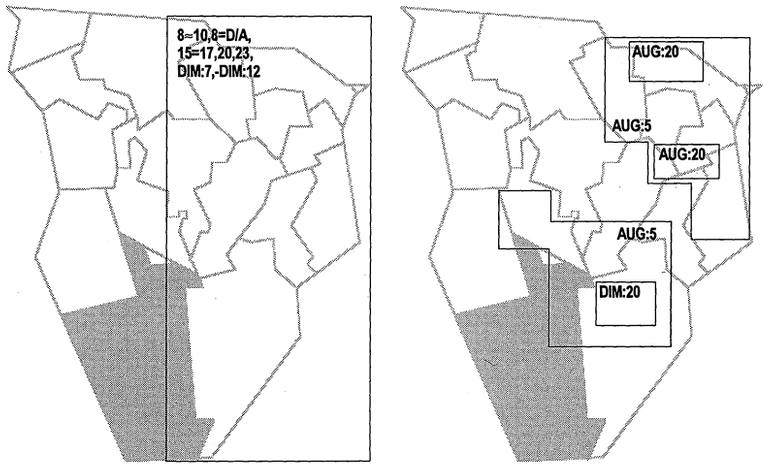



Figure 112 Some eastern-biased distributions (ignoring outliers)

can, with the exception of the fragmentarily described Ngwi (B60), be fairly easily explained as secondary developments (see discussion in previous section). Also other distributions are restricted to either the eastern or western area, for which see above. Most such distributions seem rather spotty, though. The majority of distributions do not give support for any East-West Divide. This is true for some of the northern distributions, but in particular the distributions that will be discussed next.

### 4.4.6 Some double-distributions

There are a number of double-distributions that show up in remote parts of the Bantu area. Figure 113 shows highly abstracted forms of the distributions that are discussed here. (The distributions of 3≈11 mergers, 5/4 pairings and the infinitive use of class 5 have already been discussed as northern-biased distributions above.) Interestingly, the majority of such double-distributions involve one member located either in the north-west (entire rainforest in a few cases) or the north-east. Thus there seems to be no double-distributions located in, say, the central east and the central west.

Double-distributions concentrated in the north-west and the south include those of full 5=11 mergers and *li*-like class 11 prefixes (both of which are related to one another). These are concentrated in the lower north-west and the lower



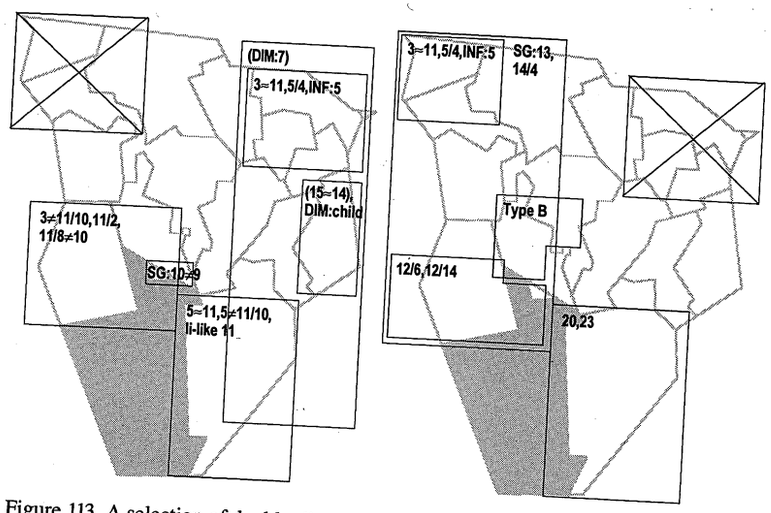



Figure 113 A selection of double-distributions (ignoring outliers)
The crossed-out areas are those where all features mentioned in the respective maps are found.

south. The distribution of pairing 5(≠11)/10 also belongs here. Most occurrences are concentrated in the north-west, and a small southern area is formed by Sekgalagadi (S31d) and Sesotho (S33) to which we can add Siyeyi (R41). The occurrence of a 5/10 pairing in Umbundu (R11) seems uncertain (see discussion above). The distribution of pairing 7/10≠8 also forms a double-distribution (not shown in figure 113; but see figure 64 above). Most occurrences are scattered across the rainforest area, while three attested occurrences are found further south, in Siyeyi, Silozi and Sekgalagadi, which together constitute a small coherence area of their own.

The diminutive use of class 7 was mentioned as an eastern phenomenon above. However, if we recognize the two lower north-western outliers, Boma (B82) and Kikongo (H16b), as a small coherence area, we might possibly see the entire distributional patterning as a double-distribution.

Attested full mergers involving classes 14 and 15 are found in two central east languages, Emakhuwa (P31) and Lomwe (P32), while a number of near-mergers are found in the lower north-west. The latter are, however, not safely attested since they derive from my own analysis of the data presented by Jacquot (1983); see previous discussion above and supplementary section A. The distribution of preposed 'child'-derived diminutive markers, which was mentioned above, shows an almost identical double-distribution. One area is concentrated in the rainforest

and another in the same two central east languages, again Emakhuwa (P31) and Lomwe (P32). As mentioned already, the use of full words occurs only in the rainforest.

Several distributions which have been discussed in previous subsections show up in the north-east and the south-west, thus being largely western distributions, like those of pairings 3/10, 11/2 and 11/8≠10. An eastern outlier to the 3/10 distribution is found in Bembe (D54). The distribution of 11/8 extends in fact to the south if we include languages with putative 8=10 mergers, in which case Remi (F32) would have to be recognized as an outlier. The distribution of pairing 9/2 (not in figure 113, but see figure 110) is concentrated in the north-west and the central area. A similar distribution is that of singular class 10≠9, being concentrated in the lower north-west and in the lower central area.

Moving now to the right-hand map in figure 113, double-distributions involving the north-east and the south-west include those of pairings 12/6 and 12/14. The latter involves more than ten occurrences in the north-east and six in the south-west, and both distributions are dense and clearly demarcated. This is not true for the double-distribution of pairing 12/6. There are only two occurrences in the south-west and the five north-eastern occurrences are spottily distributed. Only one attested language, Nkumbi (R14), exhibits both pairings 12/6 and 12/14. All other languages concerned exhibit either 12/6 or 12/14.

Pairing 14/4 is found spottily among western languages as well as in the north-east, specifically in the lower north-east (or possibly upper central east). The full distribution of singular class 13 shows a similar pattern.

The distributions of concordial systems of type B, that is, those exhibiting general animate concords (or GAC), are found along the north-eastern coast and in the lower central area (or eastern south-west). Hesitantly, the two lower north-western occurrences in Myɛnɛ (B11) and Bobangi (C32) could be viewed as a third member of a possible triple-distribution. This seems uncertain, though.

The attested occurrences of (locative) class 23 form a fairly clear double-distribution, with one area concentrated in the upper north-east and another one in the south. A single attested outlier is found in the north-western Mbɛnɛ (A43). A distribution noted above as markedly eastern is that of class 20. This could be split into three separate distributions (two in the north-east and one in the upper south), thus showing a double-distribution similar to that of class 23.

### 4.4.7 Distributions with complex geographical patternings

There are some distributions that can only be described by resorting to complex phrases. Figure 114 shows distributions found mainly among northern and central



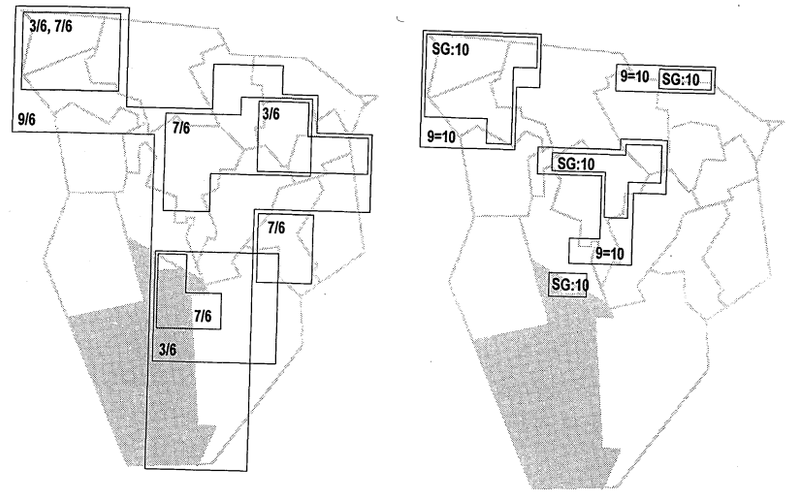



Figure 114 Some northern/central-distributions (ignoring outliers)

Bantu languages. The distributions could be said to show a Y-pattern and a V-pattern respectively. The joint distributions of pairings 3/6, 7/6 and 9/6 are abstracted in the left-hand map in figure 114. The distribution of pairing 9/6 is fairly wide, while those of pairings 3/6 and 7/6 are less wide. Most occurrences of pairing 7/6 are found among northern Bantu languages (mainly in the north-west), but at least six occurrences are found in other areas, namely, Fipa (M13), Lunda (L52), Chinyanja (N31a), Sena (N44), Siyeyi (R41) and Sekgalagadi (S31d). Pairing 3/6 seems concentrated in several areas, the extreme north-west, lower north-east and upper south to which we can add Siyeyi (R41). The distributions of pairings 7/6 and 3/6 are reminiscent of the distribution of pairing 9/6, especially when added onto each other in abstracted form as in figure 114.[140]

A similar northern/central-distribution is attested for full mergers involving classes 9 and 10, shown on the right-hand map in figure 114, though this particular distribution does not reach as far south as the former ones do. Most 9=10 mergers are found in the north-west, a few in the north-east, and a handful in the central area. The distribution of singular class 10 shows, not unexpectedly, a distribution almost identical to that of 9=10 (recall also figure 72).

Another complex distributional patterning is shown in figure 115. These are seemingly diagonally stretched between the north-east and the south-west. The

[140] The distribution of pairing 1/6 seems also to be similar to the just-mentioned ones, but with only 9 attested occurrences scattered all over the Bantu area I feel hesitant to make too decisive comparisons.

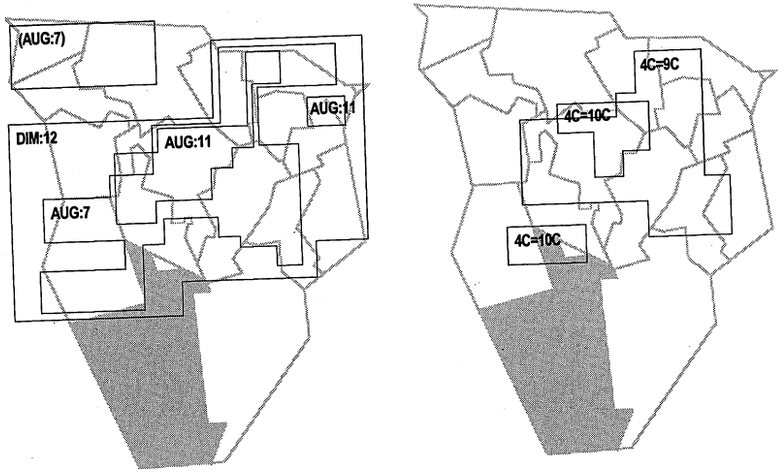



Figure 115 Distributions putatively similar to the ka-belt (ignoring outliers)

clearest distribution in this respect is that of class 12, being continuous and dense from one end to the other. I dub this area 'the ka-belt', *ka-* being the most common form of the class 12 noun prefix. There are a number of distributions that show a similar kind of diagonal stretch and which seemingly fall within the ka-belt. I refer to these jointly as 'the ka-complex'. Whatever historical implications one may draw from this, if any, is an issue that I take up in the next chapter.

Other distributions with a north-east/south-west stretch do not extend all the way to both end-points. Perhaps the clearest one is that of augmentative class 11. It forms a fairly continuous area stretching from the non-coastal north-east to the central area, with two coastal north-eastern occurrences breaking up the continuity, namely, Asu (G22) and Shambaa (G23). Another distribution to be noted here is that of 4C=9C mergers. Most attested occurrences are located in the central area, leaning heavily to the east (without reaching the coastal areas, though), and with Isizulu (S42) being a clear outlier. Shingazidja (G44a) seems also to be a clear outlier. Possibly the double-distribution concerning mergers and near-mergers involving classes 4 and 10 belongs here too. (Even though not all occurrences have been attested with full safety, for which see earlier discussion and supplementary section A.)

Another distribution to be mentioned here involves attested uses of class 7 for augmentative purposes, the overwhelming majority of which occur in a diagonal stretch from the north-east to the south-west (recall figure 100). However, a



number of them are also attested in the north-west. Though not shown in figure 115 (but see figure 113), the double-distribution of type B concordial types should also be mentioned here.

### 4.4.8 Typologically displaced languages

There are at least two categories of languages that could be viewed as areally displaced. The first category comprises the outliers. The other category comprises languages that stick out within coherence areas. There are many languages that look displaced in these two ways when looking at individual features, but none seem to do so on a consistent basis. I focus here mainly on the first category of displaced languages, specifically the two most oft-occurring outliers.

Siyeyi exhibits at least four noun class pairings that are typical of other areas than its own neighbourhood, namely, pairings 7/4 (most occurrences of which are found in the north-west), 11/4 (northern Bantu area), 14/2≠6 (lower north-west), 14/10 (north-east) and 15/4 (lower north-west). In addition, Siyeyi exhibits a number of features which it shares with one or two neighbouring languages and which thereby form very small putative coherence areas, some belonging to double- or triple-distributions. These also mostly concern noun class pairings, such as 3/10 (most of which are found in the north-west), 5/10 (mostly north-west), 7/6 (north-west and central to non-coastal east), 7/10≠8 (rainforest), singular 10≠9 (north-west), 11/8≠10 (north-west), 12/6 (north-east) and 14/4 (north-west and north-east). Siyeyi is not, however, completely at odds with its typological neighbourhood. It also takes part in coherence areas that are typical of the area, such as the distribution of dental/alveolar class 8 prefixes and that of pairing 12/13, and if we recognize it as a coherence area, also that of pairing 13/6. There are, in addition, some coherence areas in which it does not take part but could do so considering their distributions, like those of plural class 2b, 4≈10 mergers, plural use of class 14, and others.

As for Umbundu (R11), its areally non-typical features include mergers 2=6, 3=14, 4=8 and 8C=10C mergers. Mergers and near-mergers involving classes 4 and 8 show a typical western distribution (as was shown above), although full mergers are otherwise only attested in the rainforest. Similarly for full mergers involving classes 3 and 14. Full mergers involving classes 2 and 6 are exclusively found in the rainforest, while near-mergers are only found in the non-coastal central east. The 8C=10C merger is a typical eastern phenomenon, and its occurrence in Umbundu can be explained as a secondary development resulting from a 4=8 merger, on the one hand, and a 4C=10C, on the other. (The latter near-merger is found in neighbouring languages.) The areally odd pairing 7/4(=8) seems

convenient to regard as a result of this merger. The same cannot safely be said of pairings 5/2(=6), 11/2(=6) and 3/2(=6), for which see discussion above. Pairing 14/4 also seems to be areally non-typical, being mostly found among northern Bantu languages, though it is also found in Thimbukushu (K43). Among areally typical features, on the other hand, we find the already-mentioned merger 4=8, pairings 12/13 and 15/6 as well as the augmentative use of class 7. The latter have very wide distributions, though.

Other languages also show one or more features that are more typical of non-neighbouring areas, such as the pairings 1/4 and 11/14 found in Tshivenda (S21), the 4C=9C merger found in Isizulu (S42), the augmentative use of class 7 in Xironga (S54), the marginal use of general animate concords in Siswati (S43), and others. Not much can be made out of these without expanding the study beyond the present scope.

### 4.4.9 A brief conclusion

Considering the fairly large number of putative coherence areas tentatively established (figures 104-107), it would seem that noun class features such as those studied here are easily prone to diffusion, much as lexical items reveal themselves to do in more conventional dialectological studies. Thus their value as indicators of genetic subgroups may be regarded as not so good, or perhaps even non-existent. They are not, however, useless for saying something about language history, which is the subject of the next chapter.

# Chapter 5

# Historical implications and speculations

This chapter focuses on diachronic issues. The overall concern is to reconstruct selected features of an assumed Proto-Bantu noun class system. This has already been done various times during the course of comparative Bantu studies, for instance, by Bleek (1869), Meinhof (1899; 1932), Greenberg (1948), Meeussen (1967), Kadima (1969), Guthrie (1967b/1971; 1970), Creider & Denny (1975), Stewart (1989), and several others. My aim here is to elaborate briefly on these previous reconstructions. In particular, I will project back existing noun class features to an assumed Proto-Bantu, which means essentially that some kind of optimal proto-situation is deduced which accounts for present-day distributions.

It is worth emphasizing that my aim in this chapter is not to offer any language classification, mainly because the distributional patterning of noun class features which I have surveyed above seems too easily prone to diffusion phenomena to support such an enterprise. The purpose here is to find out which of the surveyed features are likely to be retentions from an original (and assumed) Proto-Bantu language.

## 5.1 Typology, geographical patterning, reconstruction

There is no straightforward relationship between typological features, their geographical patterning and past language states. This is not an area lacking previous research, however. There are in fact numerous case studies as well as theoretical treatises dealing with such issues. I will devote some paragraphs here to a selection that I have found useful for my purposes.

Using distributional patterns in order to reconstruct properties of an ancestor language is not the simplest of tasks. The first prerequisite is to ascertain that the languages surveyed derive from a common ancestor. This poses few problems in the present study. The problems related to such issues were discussed already in

convenient to regard as a result of this merger. The same cannot safely be said of pairings 5/2(=6), 11/2(=6) and 3/2(=6), for which see discussion above. Pairing 14/4 also seems to be areally non-typical, being mostly found among northern Bantu languages, though it is also found in Thimbukushu (K43). Among areally typical features, on the other hand, we find the already-mentioned merger 4=8, pairings 12/13 and 15/6 as well as the augmentative use of class 7. The latter have very wide distributions, though.

Other languages also show one or more features that are more typical of non-neighbouring areas, such as the pairings 1/4 and 11/14 found in Tshivenda (S21), the 4C=9C merger found in Isizulu (S42), the augmentative use of class 7 in Xironga (S54), the marginal use of general animate concords in Siswati (S43), and others. Not much can be made out of these without expanding the study beyond the present scope.

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Using distributional patterns in order to reconstruct properties of an ancestor language is not the simplest of tasks. The first prerequisite is to ascertain that the languages surveyed derive from a common ancestor. This poses few problems in the present study. The problems related to such issues were discussed already in

chapter 2. Suffice it to say here that we are not in a position to say anything conclusive about how the Bantu languages are related to each other; at least not yet, I should perhaps add. We know they are related, but no generally accepted subgrouping of all Bantu languages exists. Moreover, exactly which languages to include as Bantu and which to exclude is still a matter of debate, although this concerns only some of the north-western languages.[141] As will be made evident below, problems of this sort do not seem to have any major impact on the results of the present study, since the main conclusions that I will make are such that would be arrived at irrespective of whether or not we exclude some of the north-western languages. This is the main advantage of making reconstructions based on distributional surveys. Had I wished to present a language classification, with proper subgroupings, the issue of deciding the exact linguistic-genetic borders would have been much more important and would have had wider consequences for the results. At any rate, with the aim of reconstructing noun class properties of Proto-Bantu based on present-day distributional patterns, there are at least two different types of inferences that can be made, namely, distributional and comparative. The former refer to inferences based on the distributional patterns presented in previous chapters, the latter to inferences based on non-Bantu data.

Inferences based on present-day distributions can prove highly useful for reconstructive work. The main methodological idea is to project the most common and widespread features back to an assumed proto-language. True, this is not a water-tight method, but it would seem futile not to probe into the matter of reconstruction at this point. The problem of distinguishing retentions from later innovations is not always easy, especially when we deal with features that are not so common among the modern languages. Also, the proto-language may have exhibited features that at some point were lost but which have left no traces in the modern languages. Inevitably these cannot be back-projected. They have to be reconstructed by other means. Thus the reconstruction work offered below is selective.

The way that dialectological data can be used for reconstructive purposes was formulated in a number of 'areal norms' by the Italian linguist Matteo Bàrtoli (1925; 1945). The aim of these areal norms was to be "an instrument to discover the chronological relationship between two or more concurrent linguistic forms and to formulate reasonable hypotheses with regard to their origin and the reasons for their actual geographical distribution" (Albrecht 1995: 243f). The norms in question were originally five (idem; see also Mańczak 1988; and Polomé 1990: 140f):

141 According to Bennett & Sterk (1977), the majority of rainforest languages should be excluded, but this idea has been rejected by others, for instance, Schadeberg (1986); see chapter 2 on these issues.



1) *Norma dell'area meno esposta*
   Older features are usually preserved in more isolated areas.
2) *Norma delle aree laterali*
   Older features are usually preserved in peripheral areas, provided that the central area is not more isolated.
3) *Norma dell'area maggiore*
   A larger area usually preserves older features, provided that the lesser area is not more isolated or peripheral.
4) *Norma dell'area seniore*
   Earlier features are usually preserved in areas occupied later by people speaking the language in question.
5) *Norma dell'fase sparita*
   If one of two linguistic features is on the brink of disappearing, it is usually the older feature that goes first.

The fifth norm is not particularly areal in character, and neither is the fourth (see Bonfante 1945: 135f; see also Albrecht 1995: 246; Trudgill 1990: 261ff; and Hall 1946). The fourth and fifth norms will consequently be of no use for me here. Not all of these norms were innovative at the time they were proposed as far as reconstructive work is concerned, and it is usually only the second and third norms that are credited to Bàrtoli's innovativeness. It is also those two that I will have main use for.

One note of import is that Bàrtoli's norms are probabilistic rather than rigid rules, as is indicated in the above formulations by the use of that significant little word "usually".[142] Thus, for instance, the likelihood for a feature found in a peripheral area to be older than a feature found in a central area increases with the number of peripheral areas. Mańczak (1988: 353) draws an important conclusion from this fact, namely, that the notion of 'peripheral area' can be dispensed with completely, simply by reformulating the second norm as follows: "if phenomenon B occurs in one area and phenomenon A occurs in more than one area, phenomenon A is usually older ... and the probability that phenomenon A is an archaism is larger, the larger the number of areas where A occurs" (idem).

'Comparative inferences' is a convenient label used here when non-Bantu data are taken into account. In particular, two sets of data will be used. The first is De Wolf's (1971) reconstruction of the noun class system of Proto-Benue-Congo, which will provide a basis for comparison. The other set of data comprises the

142 Something that Bàrtoli himself apparently did not fully appreciate. "A number of critics, not without ironical undertones, have pointed to the fact that at least Bàrtoli, in the late phase of his life, became as rigid and schematic as the sharply criticized Neogrammarians" (Albrecht 1995: 246).

noun class systems of Bantoid and other Benue-Congo languages, the nearest linguistic-genetic relatives of the Bantu languages.[143] Comparative inferences drawn from material of this kind can effectively help a proper judgment of the distributional data.

## 5.2 From present-day distributions to Proto-Bantu

To begin with, I do not intend to reconstruct the whole noun class system of Proto-Bantu. By implication, the discussion that follows is highly selective. It is restricted to a subset of the features discussed above, in particular the noun class inventory, that is, what nouns classes and what noun class pairings there may have been. I will also say a few words about possible noun class functions.

### 5.2.1 What noun classes were there in Proto-Bantu?

Various sets of noun classes in Proto-Bantu have been offered. The earliest known is that of Bleek (1862; 1969), who reconstructed sixteen noun prefixes for what he called 'Ancient Bantu'. Bleek's reconstruction was later reworked and amended by Meinhof (1899; 1932), who not only refined the phonological forms of Bleek's prefixes but also added a few prefixes of his own. Originally Meinhof (1899) had proposed twenty-three Ur-Bantu noun classes, that is, in addition to the ones given in figure 116 also **ɣa-*, labelled '22', and **ɣi-*, labelled '23'. The latter does not refer to the same noun classes as that which appears as '23' here; see also figure 117.[144] Meinhof's 23 was suggested as an infinitive class, and was apparently reconstructed on the basis of infinitive class 5 in Duala (see Meinhof 1948: 60). He later concluded, however, that data could not justify the reconstruction of neither of these latter two classes, so he ultimately dropped them (Meinhof 1932), though he did not refrain from acknowledging the possibility that "[s]till other prefixes probably existed in Ur-Bantu" (idem: 40).

Probably the most oft-cited Proto-Bantu noun class reconstruction is that of Meeussen (1967), "oft-cited" even though it was published without the slightest trace of empirical support, comprising only a description of a putative reconstruction of the grammar of Proto-Bantu, or parts thereof. However, as Meeussen (1967: 81) himself says in the introduction: "[t]he chief motive ... for issuing this set of conclusions now, without waiting for the possibility of submitting proof, is that it can be viewed as part of a comprehensive work which is

[143] A further set of data could have been added consisting of geographically close gender-languages, both those remotely related to Bantu languages, like the Ubangi languages in the north, and even unrelated languages, like the Nilotic language in the north-east. This will have to be left for future research, however.

[144] Meinhof's class 23 is represented by a question mark in the bottom of the table in figure 117.



| | BLEEK'S ANCIENT BANTU (Bleek 1869: 282ff) | MEINHOF'S UR-BANTU (Meinhof 1932: 39f) | MEEUSSEN'S PROTO-BANTU (Meeussen 1967: 97) | GUTHRIE'S PROTO-BANTU (Guthrie 1971: 9) |
|---|---|---|---|---|
| **1** | *mŭ- | *mu- | *mu- | *mọ- |
| **2** | *ba- | *ɒa- | *ba- | *ba- |
| **3** | *mū- | *mu- | *mu- | *mọ- |
| **4** | *mi- | *mi- | *mi- | *mẹ- |
| **5** | *di- ~ *li- | *li- | *ɟ- | *yɟ- |
| **6** | *ma- | *ma- | *ma- | *ma- |
| **7** | *ki- | *ki- | *ki- | *kẹ- |
| **8** | *pi- | *ɒî- | *bɟ- | *bɟ- |
| **9** | *n- | *ni- | *n- | *ny- |
| **10** | *thin- | *lî-ni- | *n- | *ny- |
| **11** | *lu- | *lu- | *du- | *dọ- |
| **12** | *ka- (13) | *ka- (13) | *ka- | *ka- |
| **13** | *tu- (12) | *tu- (12) | *tu- | *tọ- |
| **14** | *bu- | *ɒu- | *bu- | *bọ- |
| **15** | *ku- | *ku- | *ku- | *kọ- |
| **16** | *pa- | *pa- | *pa- | *pa- |
| **17** | — | *ku- | *ku- | *kọ- |
| **18** | — | *mu- | *mu- | *mọ- |
| **19** | — | *pî- | *pɟ- | *pɟ- |
| **20** | — | *ɣu- | — | — |
| **21** | — | *ɣî- | — | — |
| **(22)** | — | — | — | — |
| **23** | — | — | *i- (24) | — |

Figure 116 Four often-cited lists of reconstructed Proto-Bantu noun prefixes
Original BM numbering appears in parentheses where it differs from my use.

in full progress." To the best of my knowledge, the work of the Tervuren group (to which Meeussen belongs) is still in progress, and most of their highly valuable work is published through their journal *Africana linguistica.* At any rate, Meeussen's reconstruction reduced Meinhof's set of noun classes to nineteen, to which he added locative class 23 (labelled '24' by Meeussen).

The next major reconstruction of the Proto-Bantu noun class system was offered by Guthrie (1967b/1971; 1970), who reconstructed nineteen classes, which

| BM NO | NOUN PREFIX | OTHER BM LABELLING FOUND IN THE LITERATURE |
|---|---|---|
| **1** | *mu- | |
| **1a** | *ø- | |
| **2** | *ba-, *βa- | |
| **2a (2x)** | *βa- | |
| **2b (2x)** | *βɔ- | **2a** (Fivaz 1986; Ziervogel et al. 1981) |
| **3** | *mu- | |
| **4** | *mi- | |
| **5** | *dɟ-, *lɟ-, *yɟ-, *ɟ- | |
| **6** | *ma- | |
| **6a** | *ma- | |
| **7** | *ki- | |
| **8** | *bɟ-, *bi-, *βɟ- | **8~18** (Jacquot 1982), **20** (Mwisiya 1977) |
| **8x** | *lɟ- | **8** (Doke 1963a), **8x** (Davey 1965), **10** (Cole 1967) |
| **9** | *N- | |
| **10** | *N-, *lɟ-N- | **10-9** (Cole 1967) |
| **11** | *du-, *lu- | |
| **12** | *ka- | **13** (Bleek 1869; Meinhof 1932; and others) |
| **13** | *tuɾ | **12** (Bleek 1869; Meinhof 1932; and others) |
| **14** | *bu-, *βu- | **13** (Jacquot 1982) |
| **15** | *ku- | **19** (Jacquot 1982) |
| **16** | *pa- | **15** (Jacquot 1982) |
| **17** | *ku- | **14** (Jacquot 1982) |
| **18** | *mu- | **16** (Jacquot 1982) |
| **19** | *pɟ- | **17** (Jacquot 1982) |
| **20** | *ɣu-, *ɣɔ- | **3a** (De Blois 1975) |
| **21** | *ɣi- | |
| **22** | *ɣa- | |
| **23** | *i- | **23** (Cole 1965), **24** (Meeussen 1967), **25** (Bastin 1983) |
| **24** | *ka- | **24** (Gauton 1999), **X** (Lombard et al. 1985: 50) |
| **25** | *n(I)- | **25** (Gauton 1999), **Y** (Lombard et al. 1985: 50) |
| **?** | *ɣi-, *ɣe- | **23** (Meinhof 1899; 1948) |

Figure 117 Full set of suggested Proto-Bantu noun classes and noun prefixes
Based on Welmers (1973: 163ff), and others. The works referred to above using other BM labellings than I do in this study are examples only; the references are not exhaustive.



included Meeussen's set minus locative class 23. Various refinements and additions have been offered since. The state of affairs until the early 1970s was summarized by Welmers (1973: 163ff; see also figure 22 in chapter 3 and figure 117 here). Classes 1a and 2a had been suggested by Doke (1927), and to this Cole added class 2b (see Welmers 1973: 163). The strange class 8 noun prefix forms with dentals and alveolars had long been recognized in southern Bantu languages, for which the label '8x' came to be used by some southern African scholars, for instance, Davey (1965). Cole (1967) later analysed these as regular reflexes of class 10 instead of class 8, which has become accepted by at least some Bantuists, like Gowlett (1989) and Canonici (1994), though rejected by others, like Kadima (1969: 17f+145), who also suggested two proto-forms for the noun prefix of class 8, a western **bi-* and an eastern **bɟ-* (idem: 197). The addition of class 6a was offered by Welmers himself, not on morphological or phonological grounds, but on semantic ones. Frequently in Bantu languages mass nouns denoting liquids (typically words for 'water' and 'blood') are classified in class 6, which is normally used as a plural class for singular count nouns in a variety of classes (see chapters 3 and 4 above). Welmers, like others, prefers to separate the liquid nouns from the plural count nouns by labelling the former '6a', and this is sometimes also recognized for Proto-Bantu. To the just-mentioned additions, Gauton (1999) has recently suggested that we recognize two more (locative) classes in Proto-Bantu, namely, **ka-* (24)[145] and **n(I)-* (25). With these two recent additions we would have a putative set of thirty Proto-Bantu noun classes, or at least noun prefixes; these are summarized in figure 117. Even though all of them could theoretically have been present in Proto-Bantu, there is little to support such a claim based on our present-day knowledge. In fact, we can quite reasonably question the validity of a number of them, as has often been done.

Data on the distribution of classes 1a, 2a and 2b are partly unreliable, since many sources do not list them separately, but as alternatives of classes 1 and 2. What the data do show so far, however, is that class 1a cannot convincingly be excluded from a Proto-Bantu reconstruction. Its distribution is maximally wide as well as dense, and not necessarily continuous in all areas. Thus the safest assumption would be to accept its presence in Proto-Bantu. As regards classes 2a and 2b, it would seem probable that only one is likely to have been present in Proto-Bantu, for which the joint label '2x' seems a good choice. The joint distribution of classes 2a and 2b is, with only one safe exception, wholly complementary, as seen in the map figure 57 (in chapter 4). Thus if we accept a 2x class for Proto-Bantu, the present distribution of classes 2a and 2b suggests they derive from a post-Proto-Bantu split. Possibly the original situation involved

[145] Not to be confused with Meeussen's (1967) PB class 24, which has been relabelled '23' here.

allomorphy (or perhaps even vowel harmony).

In the great majority of Bantu languages, class 6 functions as a plural class for countables found in other classes, primarily those of class 5 but also others. The class that Welmers (1973: 163) labels '6a', on the other hand, contains words for various liquids which are neutral in terms of grammatical number; that is, they are single class nouns. The most common way to treat these words by grammarians is to see them as grammatically plural uncountables, or pluralia tantum nouns. There is no formal distinction at all between class 6 and putative class 6a, wherefore there seems little reason to distinguish them as separate noun classes. Otherwise we would have to accept similar distinctions in other parts of the noun class system. For instance, uncountable abstract nouns are often classified in class 14 in Bantu languages, but not all nouns in class 14 are uncountable abstracts. Some are singular count nouns, like the word for 'canoe' often found in this particular class; the plural counterparts are found in class 6. Similarly, while class 15 contains chiefly infinitives (which behave like uncountables) in most Bantu languages, it is not uncommon to find a small number of words for body parts in class 15, together with the infinitives; in contrast to the infinitives, however, the body part words have plurals, in class 6. Thus for the sake of consistency, we might have to recognize class 14a for uncountables, class 14 for countables, class 15a for infinitives and class 15 for the body part words. However, the most economical and reasonable solution, at least in my view, is to stick to the traditional labelling convention and simply accept that some nouns are countables while others are uncountables which behave differently (from a grammatical number perspective) in a set of noun classes basically designed according to the needs of the former. Thus we can dispense with class 6a and other similar classes, at least in the present-day languages. But by extension this also applies to the situation in Proto-Bantu. Since there is no formal distinction between classes 6 and 6a in (most) present-day languages, we have no reason to expect Proto-Bantu to have exhibited such a distinction, even though it is highly likely that a number of liquid nouns were indeed classified as class 6 nouns also at that time.

Irrespective of the above, however, there is one particular reason why class 6a is recognized as a separate class but not 14a and others. There are Southern Bantoid languages that make a formal distinction between classes 6 and 6a. One class is used as a plural class for count nouns while the other class is specifically used for certain liquids (Watters & Leroy 1989: 442). It is these two classes which are assumed to have merged in Bantu languages. A similar merger is not assumed to have happened with class 14 and putative class 14a. Anyway, the question now is: did this happen before, during or after Proto-Bantu? Most people think it happened before. Still, there are a few north-western Bantu languages that exhibit



two morphologically distinct class 6 prefixes. Their distribution, however, is not based on lexical semantics (nor on phonology). In Tùkí, for instance, prefix *àN-* is used with plurals of singular classes 3 and 5, while prefix *mà-* is used with plurals of singular class 14. Here we can justifiably label them as separate classes (based on morphological distinctiveness as well as differences in use), but their restricted distribution (zones A40 and A60 only) makes it difficult to reconstruct them as separate classes for Proto-Bantu, especially since their location is so close to non-Bantu areas where such a distinction is made. Thus the use of two distinct 6-classes in the north-western Bantu area seems likely to be a post-Proto-Bantu innovation.[146]

Some of the class 8 prefixes displaying dental/alveolar consonants can be explained as regular reflexes of a Proto-Bantu **bi-* or **bi̩-*; see, for instance, Kadima (1969: 141ff). However, this is not true for all such occurrences. There is in any case a clear relationship between dental/alveolar 8 and class 10, in that the latter class normally displays dental/alveolar consonants in the set of noun class affixes associated with it. There are, furthermore, several languages with attested mergers or near-mergers involving these two classes. The distribution of dental/alveolar class 8 prefixes as well as that of 8≈10 mergers are predominantly eastern Bantu phenomena. It seems likely that these two phenomena are related to each other, even though the full history behind the dental/alveolar class 8 prefixes is still a question to be resolved. Cole's (1967) solution is to recognize the dental/alveolar prefixes as reflexes of class 10, not 8, which was discussed in chapter 4; see also comments in supplementary section A. Whatever their origin, the current dental/alveolar forms are likely to be post-Proto-Bantu innovations, at least judging by the current distribution. Thus it need in any case not be listed in a Proto-Bantu noun class inventory.

Class 12 is included in all Proto-Bantu reconstructions. It is even found in a number of Niger-Congo languages outside the Bantu group (see De Wolf 1971: 174; Williamson 1989a: 39; and Watters & Leroy 1989: 442). Thus there should be little question as to its existence also in Proto-Bantu. In fact, in De Wolf's (1971) reconstruction of Proto-Benue-Congo the prefix/class **ka* "was an autonomous class with a diminutive meaning" (idem: 171), which agrees well with the use of class 12 as a diminutive class in Bantu languages.[147] Thus unless we assume that Proto-Benue-Congo **ka* disappeared during a pre-Proto-Bantu period, only to be reintroduced later, we have to accept its presence also in Proto-Bantu. Hence the safest reconstruction does include class 12 as a Proto-Bantu noun class.

[146] Unless these languages should in fact be classified outside the Bantu group altogether, as some people have suggested, for instance, Piron (1997; 1998); see also Watters (1989: 409).

[147] The most common form of the class 12 noun prefix is *ka-*.

Still, its seemingly odd distribution leaves some doubt. In fact, Guthrie (1967b: 95) came to the conclusion about class 12 as well as class 13 that, "[although they] must have occurred during the Proto-Bantu period, it is highly likely that they arose late". There are no obvious traces of a lost class 12 in the north-western area, while in the south we find some traces in the form of an adverbial marker *ka-* which I presume is derived from an old class 12. (I return to this shortly.) The current distribution of class 12 does indeed look very much like a recent spread, at least a post-Proto-Bantu one. However, the occurrence of a diminutive *ka*-like class in Benue-Congo languages seemingly contradicts this. A possible scenario accounting for this would be if class 12 was indeed there in Proto-Bantu, but not in all dialects. These latter dialects were then the ones dispersing first, and only after the Bantu languages had established themselves over what is now the Bantu area did class 12 diffuse from where it had been retained. This, however, is mere speculation, and I return to this issue in the next section.

Gauton (1997; 1999) has recently proposed that the Proto-Bantu noun class inventory should be expanded with two locative classes, class 24 with prefix **ka-* and class 25 **n(I)-*. The latter of these is discussed separately further below. The recognition of putative class 24 rests partly on the fact that a *ka*-like derivational prefix is productively used as an adverbializer in a number of Bantu languages. It is used in much the same way as the locative class prefixes 16, 17, 18 and 23; that is, it is prefixed to a noun which then becomes an adverbial. There are no concords associated with these *ka*-like particles at all. Based on its usage, one could assume this *ka*-like adverbializer to be a modern reflex of an older locative class. Furthermore, there are, according to Gauton (1999: 220ff), traces of an old *ka*-like prefix to be found in certain adverbials in a number of Bantu languages, as in Kamba *gathi* 'in the middle' (idem: 221). Whatever evidence there is of a former class 24, it is identical to that class 12. In fact, there is clear evidence pointing towards these classes being the same class. The respective distributions of languages that have productive *ka*-adverbials are almost perfectly complementary to that of languages with a productive class 12. Productive *ka*-adverbials are found in southern Bantu languages like Tshivenda, Sesotho, Isizulu, and others. These languages lack a productive class 12. The great majority of languages that exhibit a productive class 12, on the other hand, seem to lack productive *ka*-adverbials. This is true for Oshindonga, Icibemba, Thimbukushu, Kamba, and many others. In Lwena, there is, besides a productive class 12, something that looks like a non-productive *ka*-adverbializer occurring as a "frozen" element in adverbials such as *kamwe* 'once', *kavali* 'twice', *kakavulu* 'many times' and *kangahi* 'how often' (White 1949: 58); a similar situation is found in Zezuru (Fortune 1957: 34f) and



Chichewa (Hullquist 1988: 39f). These *ka*-initial elements could well be remnants of an old class 12, which in turn would support the claim that the current distribution of diminutive class 12 is fairly recent.[148] Thus what would seem as a possible solution is that the productive *ka*-like adverbializers are remnant morphemes of a former class 12 (due to its complementary distribution with diminutive class 12). Hence I am not rejecting Gauton's claim of a former locative function for this class (although I would rather phrase it 'adverbial'), only her choice of a BM label.

Class 19 has a very wide distribution, but it is dense only inside the northern area. Outside the northern area, its occurrence is very spotty indeed. The uneven distribution makes its reconstruction back to Proto-Bantu somewhat tricky. The northern occurrences alone could well be regarded as post-Proto-Bantu innovations, perhaps as a diffusion from non-Bantu Southern Bantoid languages. The one disturbing piece in this context is the 19/14 pairing found in Karanga, which lies far away from the others. Recognizing class 19 in Karanga as an independent innovation could be a possibility, in which case its labelling as '19' would have to be dismissed, of course. Perhaps the safest solution is nonetheless to accept 19 as a Proto-Bantu class.

Augmentative/diminutive classes 20 and 22 seem easily dispensed with from a Proto-Bantu reconstruction, or so it would seem at first sight. Kadima (1969: 184) assumes that classes 20 and 22 derive from classes 3 and 6 respectively, and this does indeed sound very convincing. And even if we were to disregard this, their highly restricted distributions make it difficult to reconstruct them as original Proto-Bantu classes.[149] Still, there is at least one possible objection to be made here. Noun classes characterized by a *ku*-like prefix (like class 20) are widely attested in Gur languages (Zwernemann 1967: 86f), and "[t]his class has an augmentative character" (idem: 76). Thus it seems, superficially at least, that it could be related to Bantu class 20. Still, its occurrences within Bantu makes it difficult to base a reconstruction on.

Kadima (1969: 184) suggests that class 21 is ultimately derived from class 5. There is little reason to disagree with that. Where class 21 has been recognized, the concords are identical to those of class 5.[150] Meinhof (1948: 58f) also noted this fact, but he drew the opposite conclusion, that they had merged. In a number of eastern Bantu languages, grammarians usually differentiate between two class 5 prefixes, one of which is used with primary nouns, the other with augmentatives.

[148] Hinnebusch (1973) apparently also argues for this (see Herbert 1985: 182; I have not seen Hinnebusch's work).

[149] I thus ignore claims of its existence in Otjiherero (Ohly 1984: 17) and Tùnɛn (Dugast 1971: 83) ; see chapter 4 on this.

[150] With the single exception of Xitsonga (see Kadima 1969: 185). This could well be the result of a full-blown split, although it is rejected by Wentzel (1983: 81ff).

The use of the two class 5 prefixes in these languages is virtually identical to the use of classes 5 and 21 in other eastern languages. Thus we can safely assume a common origin for classes 21 and 5a. The distribution will in any case be restricted to the eastern area, and so a Proto-Bantu reconstruction for class 21 or 5a is not supported.

Split class 5~5a is also attested for a few rainforest languages, thus extending its geographical scope beyond a mere eastern distribution, and thereby increasing its likelihood for a Proto-Bantu reconstruction. However, there seem to be clear differences in both form and function of these rainforest occurrences; for instance, their use is not related to secondary classification. Instead, they are used with different sets of primary nouns. In Tɛtɛla, for instance, one of the prefixes is used in pairing 5/6=2, and the other in pairings 5a/6=2 and 7/5a (Guthrie 1971: 41). Thus it is also likely that the rainforest occurrences of split class 5~5a have different origins than those in the eastern area.

Locative class 23 is found as a noun class, that is, governing concords, in Luganda (E15) and Bukusu (E31), two north-eastern languages. (Probably it is found in more languages in that particular area.) In Isizulu (S42), a locative prefix seemingly related to the Luganda and Bukusu class 23 does not appear to take part in the noun class system, being mainly a derivational affix with which one forms adverbial complements (Doke 1963a: 232ff). This is true for other languages as well. If we are to recognize this locative prefix as a reflex of a former noun class, its distribution does lend support for a Proto-Bantu reconstruction. It occurs consistently in peripheral areas, namely, the extreme north-west (though one attested occurrence only), the extreme north-east and the south. However, this presupposes that we identify the said locative prefixes as remnants of a class 23. If we do not, the various distributions may have nothing to do with each other. More comparative studies are needed. At present, it would seem safest to exclude putative class 23 from Proto-Bantu.

Class 25, as claimed by Gauton (1997; 1999: 223ff), displays the prefix **n(I)-*, which is identical to that of class 9 (idem: 220). The number of putative roots/words that show traces of this locative prefix is too small to support any kind of conclusion, at least in my view. Still, class 9 does have some connection with locatives in some Bantu languages. For instance, the concords associated with the aforementioned class 23 in Luganda are identical to those of class 9 (Cole 1965: 52). In Northern Sotho, some locatives carry a nasal class 9 prefix and the concords are the same as those of the "normal" locative classes. Lombard et al. (1985: 50+100ff) use the label 'Y' for these locatives (see figure 117). Whatever traces there may be of a nasal locative class distinct from class 9, they are best regarded as either post-Proto-Bantu innovations or traces of something else than



noun classes. The data are simply too patchy for any other kind of conclusion. The same is true for the putative class 24 (= 12) discussed above. At best, we can say that classes 9 and 12 were functionally heterogeneous in Proto-Bantu. Possibly the picture will change when more data have been assembled.

As for the other classes listed in figure 117, there are few objections to accepting them as original Proto-Bantu noun classes. Their respective distributions are wide and dense enough for being projectable back in time, so to speak. To the Proto-Bantu noun class inventories established by Meeussen (1967) and Guthrie (1971), it is safe to add classes 1a and 2x only. Possibly class 20 (see discussion above) could be added, but only with some caution. Thus we have the following Proto-Bantu noun class inventory: 1, 1a, 2, 2x, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15,16, 17, 18, 19 and possibly also 20.

### 5.2.2 What noun class pairings were there in Proto-Bantu?

Meeussen (1967: 100) has offered an oft-cited list of Proto-Bantu noun class pairings which includes 1/2, 3/4, 5/6, 7/8, 9/10, 11/10, 12/13, 14/6, 15/6 and "probably also" 19/13. Guthrie's (1971: 9; see also 1967b: 95) proposed list is slightly different, including only 1/2, 3/4, 5/6, 9/10 and 14. To these, he adds 7/8, 11, 12/13 and 19 as later developments, since he does not regard their distributions as strong enough to support a reconstruction back to an early form of Proto-Bantu. Thus what he did was to divide Proto-Bantu into two temporal phases, one early form labelled 'PB-$X_1$', and a later form labelled 'PB-$X_2$'. This putative development is shown in figure 118.

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PB-$X_1$ | 1/2; | | 3/4; | | 5/6; | | | | 9/10; | 9; | | | 14 |
| ↓ | | | | | | | | | | | | | |
| PB-$X_2$ | 1/2; | 1a/2; | 3/4; | 3; | 5/6; | 5; | 6; | 7/8; | 9/10; | 9; | 11/10; | 12/13; | 14; | 14/6 |

Figure 118 The development of the Proto-Bantu noun class system according to Guthrie (1967b: 95)

I find Guthrie's temporal division interesting, but I do not think that his reconstruction of the Proto-Bantu noun class pairings is sufficient on several accounts. I return to this further below.

Of Meeussen's (1967) and Guthrie's (1971) suggested pairings, all are fairly widely represented in all or most of the Bantu area, save 19/13 which occurs in the

rainforest area only. (One occurrence of pairing 19/14 is found in the south.) If we allow ourselves to add noun class pairings with such restricted distributions as that of 19/13, however, then a lot more "probably also"-pairings could surely be added. In fact, pairing 7/6 is a much better candidate than 19/13 since its distribution is wider than that of 19/13. It is also fairly spotty which, probabilistically speaking, makes it more difficult to explain by either diffusion or separate innovations. It would seem somewhat more reasonable to exclude pairings with such restricted and concentrated distributions as that of 19/13, since we have no clear ways of excluding the possibilities of their being areal diffusions. Compare, for instance, the distributions of pairings 19/13 and 3/6. The former is fairly densely concentrated in a more or less continuous northern belt, while the latter is spread over most of the Bantu area but discontinuously and less densely than the former. Based on the distributional data alone, it would be fully possible to argue that the latter is more likely to be a retention than the former. Thus it would seem most reasonable to exclude pairing 19/13 from a putative Proto-Bantu set. Note, however, that it is still advisable to include the singular class 19. It is the plural class that is best left unspecified.

There are pairings with far more widely attested distributions than 19/13, and there would seem to be good reasons to amend Meeussen's list of Proto-Bantu pairings with these. In particular, pairing 11/6 is found densely distributed all over the Bantu area, in all zones (see figure 74, chapter 4). Also pairing 9/6 is wide and fairly dense, and by the look of it (see figure 69, chapter 4), it could well qualify for a Proto-Bantu reconstruction. However, there are problems related to pairing 9/6, in fact most pairings involving plural class 6, which become clear only when we add all of them together in one map, as in figure 114 in chapter 4. For convenience, this figure is repeated here as figure 119, and it shows such a combination of the distributions for pairings 3/6, 7/6 and 9/6, or rather, abstractions of their distributions. As the figure shows, pairings 3/6 and 7/6 show multiple distributions, which could be accounted for as remnants of older and wider distributions. However, the figure also strongly suggests that it is the distribution of plural class 6 that is the important distribution to consider here. In fact, pairings 3/6 and 7/6 seem secondary to 9/6, which itself may be secondary to that of 11/6. The point here, then, is that we cannot include pairing 9/6 in a Proto-Bantu reconstruction since a likely explanation for pairings 3/6, 7/6 and 9/6 is that they have arisen due to the post-Proto-Bantu spread of plural class 6. Pairing 11/6 seems less likely to be excluded for this reason, mainly because its distribution is maximally wide, but also because there are quite a number of languages where 11/6 is the only attested pairing involving singular class 11 (although this could be



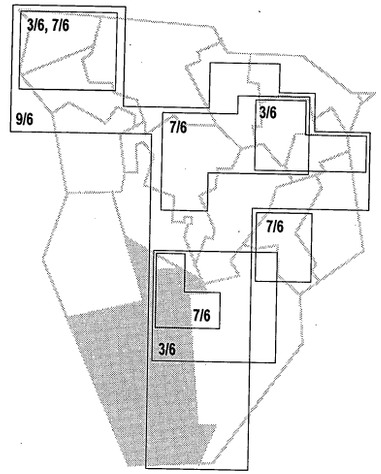



Figure 119 Joint distributions of pairings 3/6, 7/6 and 9/6 (ignoring outliers)
Reproduced from earlier figure 114 in chapter 4.

due to lack of sufficient data).

De Wolf's (1971) reconstruction of the noun class system in Proto-Benue-Congo (PBC) can provide us with a potential basis for validating or rejecting other putative Proto-Bantu noun class pairings. De Wolf's reconstruction, however, will only serve as a good basis for starting discussions since there are, in my view, severe objections to be raised as to its validity. There are particularly clear objections against his method, as noted in Kelly's (1973) excellent review. When identifying the number of noun classes in any given language, De Wolf goes successively through various procedures and stages. Unless a given procedure has yielded less than twelve noun classes, some of the noun classes are split up, and if more than fifteen, some of them are lumped together. The reason for this is to satisfy the assumption that "the PBC noun class system seems to have comprised between twelve and fifteen noun classes" (idem: 30). Unfortunately, no justification is given for this assumption. Surely an assumed number of Proto-Benue-Congo noun classes should be arrived at by first examining the present-day languages in question, and not the other way round?

Moreover, it seems almost too good that De Wolf's Proto-Benue-Congo has a noun class system which matches that of Meeussen's and Guthrie's Proto-Bantu almost perfectly, as evident in the table in figure 120. Taken at face value, little seems to have happened between Proto-Benue-Congo and Proto-Bantu and Proto-

| PBC NOUN PREFIXES (De Wolf 1971: 51f) | | PB NOUN PREFIXES (Meeussen 1967: 97) | BM NOS |
|---|---|---|---|
| *ù | | *mù | 1 |
| *ba | | *bà | 2 |
| *ú | | *mù | 3 |
| *í | *split* | *mì | 4 |
| | | *ǹ | 10 |
| *li | | *ɟ | 5 |
| *a | *merger* | *ma | 6 |
| *ma~na | | | |
| *ki | | *kì | 7 |
| *bi | | *bɟ | 8 |
| *ì | | *ǹ | 9 |
| *lu | | *lù | 11 |
| *ka | | *kà | 12 |
| *ti | | *tù | 13 |
| *bu | | *bù | 14 |
| *ku | | *kù | 15 |
| (*pi) | | *pɟ | 19 |

Figure 120 Proto-Benue-Congo (PBC) and Proto-Bantu (PB) noun prefixes compared

Benue-Congo classes/prefixes **ma~na* and **a* have merged into Proto-Bantu class 6, and Proto-Benue-Congo class/prefix **í* has split into Proto-Bantu classes 4 and 10. Other than that, nothing seems to have happened. To me this appears unlikely, especially when considering that present-day non-Bantu Benue-Congo languages differ quite markedly from the postulated state of affairs in Proto-Benue-Congo, as evident from De Wolf's (1971) own analyses (see also Bouquiaux 1967). Despite the above objections, however, I will use De Wolf's reconstruction here for lack of a better replacement, but cautiously so. After all, it may not be all wrong.

Assuming for the sake of argument, then, that De Wolf's (1971: 52f) list of Proto-Benue-Congo class pairings can be used as a valid basis for comparison, we



| PBC CLASS PAIRINGS (De Wolf 1971: 52) | TRANSLATED INTO BM NUMBERS | PB COMPARISON (Meeussen 1967: 100) | BM NOS |
|---|---|---|---|
| *Canonical pairings* | | | |
| *ù / *ba | 1/2 | *mù / *bà | 1/2 |
| *li / *a | 5/6 | *ɟ / *mà | 5/6 |
| *ì / *í | 9/4=10 | *ǹ / *ǹ | 9/10 |
| *ku / *í | 15/4=10 | — | — |
| *ku / *a | 15/6 | *kù / *mà | 15/6 |
| *ki / *bi | 7/8 | *kì / *bɟ | 7/8 |
| *Other pairings* | | | |
| *ú / *í or *ti | 3/4=10 or 13 | *mù / *mì | 3/4 |
| *ka / *í or *ti | 12/4=10 or 13 | *kà / *tù | 12/13 |
| *bu / *í or *a | 14/4=10 or 6 | *bù / *mà | 14/6 |
| *lu / *í | 11/4=10 | *dù / *ǹ | 11/10 |
| *pi / *í | 19/4=10 | — | — |
| *ki / *a | 7/6 | — | — |

Figure 121 Class pairings in Proto-Benue-Congo (PBC) and Proto-Bantu (PB) compared
The categorization into 'canonical' and 'other' pairings derives from De Wolf (1971: 52).

can compare this to similar lists postulated for Proto-Bantu, like that of Meeussen (1967: 100). These are compared in figure 121. In order to account for Meeussen's Proto-Bantu, a number of changes must have occurred. In particular, the following Proto-Benue-Congo pairings have no correspondences in Meeussen's Proto-Bantu list: 3/10, 3/13, 7/6 (already discussed above), 9/4, 11/4, 12/4, 12/10, 14/4, 14/10, 15/4, 15/10, 19/4 and 19/10. Many of these pairings are actually found in what seems like more than a random set of modern Bantu languages. If we accept their absence in Proto-Bantu, then they must have been re-innovated where they are now found. Perhaps a more economical solution would be to accept their presence also in Proto-Bantu, and thus see their present occurrences as retentions, not innovations. This is what I will try to examine below. The weak point here is the unreliability of De Wolf's reconstruction, of course, but it does nonetheless serve as some kind of basis.

Pairing 3/10 is found in the rainforest and lower central areas. The northern distribution could well be that of a later innovation. Moreover, there are interesting mergers and near-mergers involving classes 4 and 10 in large parts of the western Bantu area, which when assuming an original 3/4 pairing would result in a 3/10 (or

3/10=4) pairing. However, the 4≈10 merger could of course itself constitute a retention, or rather traces of an unfinished split, in which case an original 3/10=4 may well have existed in Proto-Bantu. Still, the present data are too weak to support it.

Pairing 3/13 is attested in Siyeyi (Sommer & Vossen 1992: 13) only, nowhere else, unless Guthrie's (1971: 43) claim of pairing 3/10 in Bembe is a mis-identification. It could be a reflex of an earlier 3/13 pairing, provided it displays a *ti*-like prefix. Unfortunately, Guthrie provides no prefix form. Another putative evidence of an earlier 3/13 pairing comes from the north-west. Hedinger (1987: 93f) finds an *o*-like vowel in the noun prefixes of class 2 in some of the Manenguba dialects. Its presence "is not easily accounted for" (idem). One of the explanations that he speculates on involves a previous merger of classes 13 and 2. This could very well be the case, and since we do find a 3/2 pairing in Manenguba, it should perhaps be re-written as '3/2=13'.

Pairing 9/4 is found in zones A, R and S. The occurrences are too few for a reconstruction, though. They could well be re-innovations. The northernmost occurrence (in Kwakum), furthermore, could well be an areal diffusion from Southern Bantoid languages.

Pairing 11/4 is attested in several northern Bantu languages. Its distribution is fairly interesting since it is spottily distributed across a fairly large area, which is good in a sense since it decreases the likelihood of diffusion or innovation. Still, it is confined to the northern belt, disregarding one outlier in the south-west (Siyeyi). Thus we cannot fully exclude the possibility of pairing 11/4 being a post-Proto-Bantu diffusion. Had it been distributed across a wider area, the situation would change.

Pairing 12/4 seems completely absent in the Bantu area, and with the exception of a single occurrence in Siyeyi, this is also true for pairing 12/10.

Pairing 14/4 is found spottily across the entire western area as well as (fairly densely) in the lower north-east. In fact, here we have a fairly clear candidate for a Proto-Bantu inventory. It would seem more economical to assume its present distribution to be a retention, rather than due to innovation. In the latter case we would have to postulate at least two innovations, one in the north-west (which has then travelled southwards) and one in the north-east.

Pairing 14/10 might also have been a good candidate, but its distribution looks somewhat too restricted. It is found densely in the north-east, with scattered occurrences elsewhere, some of which can easily be explained as local innovations. In the north-western Myɛnɛ, for instance, pairing 14/10 has resulted from mergers, and is more accurately notated '1=3=11=14/10=19' (see Jacquot 1983: 42). In the south-western Siyeyi, class 10 seems to have assumed a general



role as a plural class, being used with most singular classes, and so we find a lot of pairings with plural class 10, such as 1a/10, 3/10, 5/10, and so on (see Sommer & Vossen 1992: 12ff).

The distribution of pairing 15/4 is very restricted, occurring mainly in zone B (a post-Proto-Bantu diffusion seems likely here), while pairing 15/10 is more or less completely absent, except for its occurrence in Siyeyi (see also above).

There are sporadic occurrences of pairings 19/4 and 19/10 in zones A and B. However, since the distribution of singular class 19 is restricted to the rainforest (with the exception of southern Karanga) any pairing involving singular class 19 gets the same restricted distribution. Thereby its potential for reconstructive work is automatically limited. Even though class 19 has a Proto-Benue-Congo reconstruction, any continuous distribution (such as the one for 19/13) can still be explained as a diffusion phenomenon. In fact, the attested distribution of plural class 19 seems wider and more spotty than that of its use as a singular class, which could indicate that the plural use is older. Still, the attested occurrences of plural class 19 seem all too uncertain (see comments in supplementary section A regarding Silozi, Remi and Ruguru).

### 5.2.3 What else can we say about Proto-Bantu noun class features?

As for possible Proto-Bantu noun class functions,[151] class 15 is likely to have been an infinitive class (see also Růžička 1956: 71; and Forges 1983). Guthrie (1971: 9) also comes to this conclusion, but adds that the use of other classes in the modern languages, notably that of class 5, poses a problem. However, it would pose more problems not to accept class 15. Its current distribution is maximally wide and also dense. No other class comes even close to this (see figure 94, chapter 4).

Classes 16, 17 and 18 are likely to have been locative classes in Proto-Bantu. Their respective distributions are (almost) maximally wide, and cognate classes with similar functions are also found outside the Bantu group (Welmers 1973: 167). The question is whether there were any others. Did, for instance, classes 9 (or 25) and 12 (or 24) have locative functions in Proto-Bantu? Was class 23 a Proto-Bantu locative class? I do not have the data to support affirmative answers to these questions. The data regarding 9~25, especially, are too fragmentary for any kind of conclusion (see discussion above).

The same is basically true for class 23. However, if it did exist in Proto-Bantu, then it is likely to have been a locative class. Possibly it could be accepted as a weakly potential candidate (despite what was concluded earlier). Its current distribution (north-west, north-east and south; see figure 90, chapter 4) may

[151] On this issue, see also Meeussen (1967: 103) and Kadima (1969: 181ff).

indicate that it is indeed very old. However, it could also be that it was never a noun class to begin with. The odd occurrences of class 23 with attested concords (both in the north-east) could be local innovations. Thus they could have resulted from a process whereby a locative-adverbial derivational morpheme has been reanalysed as a noun class marker, in analogy with classes 16, 17 and 18.

No diminutive class or other morphological diminutivizing process has a distribution that covers the entire Bantu area. Class 12 is nonetheless a good candidate for a Proto-Bantu diminutive class, not so much because of its current distribution, which clearly looks like a recent spread (figure 96, chapter 4), but since a diminutive noun class with a *ka*-like prefix is also found outside Bantu. One way around this problem is to assume that diminutive class 12 disappeared in some original dialects of Proto-Bantu, but retained in others. After the former had dispersed over what is now the Bantu area, diminutive class 12 could have diffused from the latter dialects, and thereby becoming re-established where it had once been lost.

A probable, but not self-evident, Proto-Bantu diminutive class is 19 (see also Kadima 1969: 181ff+197). Its attested distribution, however, is almost exclusively restricted to the rainforest for safe reconstruction, at least in my opinion (see figure 86, chapter 4). There is only one attested singular use of class 19 outside the rainforest, the others being plural. Still, I have already added class 19 to the Proto-Bantu inventory (see discussion above), and it is more than likely that it was a diminutive class.

Class 11 may have functioned as a diminutive class. In fact, its wide and spotty distribution seems to support it, looking more like being retentions rather than innovations (see figure 101, chapter 4).

Class 7 could also possibly be added as a diminutive class, even though its most common secondary function is that of an augmentative class. However, other data point towards the diminutive use being more recent. I return to this briefly.

The use of augmentative classes is somewhat worse to speculate on. The distribution of augmentative classes is slightly more restricted than that of the diminutive classes (compare figures 95 and 98, chapter 4). In fact, Meeussen (1967: 103) cannot decide between classes 5 and 7, since "no firm reconstruction has been attained". Kadima (1969: 197) comes to the conclusion that class 5 was the augmentative class, to which he adds class 7 as a probable (*waarschijnlijk*) candidate. However, when looking at their respective distributions in figures 99 and 100 (chapter 4), it looks pretty much the other way round; that is, that class 5 should be seen as the least probable candidate. Class 5 may have had an augmentative function, but its current distribution as a diminutive class does not support this. There are, however, noun classes seemingly related to Bantu class 5



in related non-Bantu languages and which may have augmentative functions. Zwernemann (1967: 88) mentions such a possibility for some Gur languages. Still, data available to me is too insufficient for conclusive statements.

Class 7 seems like a clear candidate for being a Proto-Bantu augmentative class. Its current distribution, being very wide and dense, clearly seems to support this, though not without certain reservations. The diminutive function of class 7 is found along the eastern coastal areas (but not everywhere) as well as in the lower north-west (two languages). The joint distributions of the augmentative and diminutive uses of class 7 could actually indicate that the augmentative function has "pushed out" the diminutive function. Still, if we also consider the distribution of augmentative class 5, another scenario becomes more realistic. The distribution of augmentative class 5 is more or less co-territorial with that of diminutive class 7 (save the north-west). This could indicate that a formerly existing augmentative use of class 7 in these areas has given away for a new augmentative class; that is, class 5. According to this scenario, then, the current distribution of augmentative class 5 has to be characterized as more recent relative to augmentative class 7.

If we accept class 20 as a Proto-Bantu class, then it too is likely to have had an augmentative function. True, its distribution is confined within eastern Bantu, but *ku*-like classes are also found in Gur languages, where they perform similar functions (being used for augmentatives). More data on this class are needed for any conclusive analysis, though.

The diachronic model hypothesized and discussed in chapter 3 (see figure 51) can also be used for reconstruction work. If we assume that a change towards a more animacy-based system is unidirectional, we are forced to accept that an original Proto-Bantu noun class system did not employ general animate concords, since there seems to be so many languages without it. Thus the Proto-Bantu noun class systems is likely to have been a type 1A system (see table in figure 43, chapter 3). I do not, moreover, see any reason for accepting the Proto-Bantu noun class system to have been a strictly semantic system, like that proposed by Denny & Creider (1986). A semantic model like theirs can be used to describe semantic tendencies in most modern Bantu noun class systems, and yet none (known to me) is a strictly semantically organized system. The Proto-Bantu system is, at least to the present writer, likely to have been a noun class system much like any of the type 1A systems found today, like those in Isizulu, Oshikwanyama or Luganda.

### 5.2.4 What was Proto-Bantu called?

The maximally wide distribution of the ki-names point towards these being older. Li-names are found nowhere outside the rainforest, and with the single exception

of 'Luvenda', lu-names seem to be totally absent in most of the eastern and southern areas. If we reject Johnston's data, lu-names are also absent in much of the south-west. The net result is that we find ki-names in areas where we have virtually no trace of li- or lu-names; or so it seems. Somewhat disturbingly, however, many ki-names exhibit stems with initial *lu*-like syllables, as if being remnants of a former *lu*-prefix, for instance, Londo, Lumbu, Luguru, Luba-Kasai, Lunda, Luimbi, Luchazi and Luyana (compare with the tables in figures 91-92).[152] If there is any significance at all to be attached to this, the use of ki-names would thus seem to be a later phenomenon than the use of lu-names, at least in these languages. In line with this, the lu-name 'Runyarwanda' is apparently an older form than is the currently used ki-name 'Kinyarwanda', at least according to Schumacher (1954: vii). Nevertheless, a ki-name seems like the safest reconstruction. Thus I brave-heartedly conclude this section with a proposal to dub Proto-Bantu 'Kintu'.

## 5.3 From Proto-Bantu to today: what happened?

Before I end this chapter, I need to say a few words about what historians (and others) generally assume to have happened in between Proto-Bantu times and now, or more specifically, how and under what circumstances the present-day distribution of the Bantu languages has come about. Thus while the discussion in the last section went from the present-day state of affairs back to Proto-Bantu, I will here take the reader back from Proto-Bantu to present days.

In the historically oriented literature, one quickly discerns two main controversies regarding the history of the Bantu languages. The first one concerns place of origin, the second their spread over what is now the Bantu area. The former issue has by now been settled, the latter has not (see also Vansina 1979; 1980). The history of subequatorial Africa will, no doubt, be rewritten several times in the future, and so I do not intend to review or discuss the many issues involved in the various prehistoric scenarios already established. I can only offer a very crude overview of some of the opinions. I will review some of the relevant literature here, but the discussion is not exhaustive. Figures 122 and 123 summarizes five different views on the origin and dispersal of the Bantu languages/people.

As for place of origin, Greenberg (1949; 1955; 1966) suggested that the origin of the Bantu languages was to be found somewhere near the southern Nigerian/Cameroonian border. This is also the standard theory today. Earlier,

[152] However, putative *lu*-like names are absent in zones N and S, and with the exception of Lomwe (P23) also zone P.



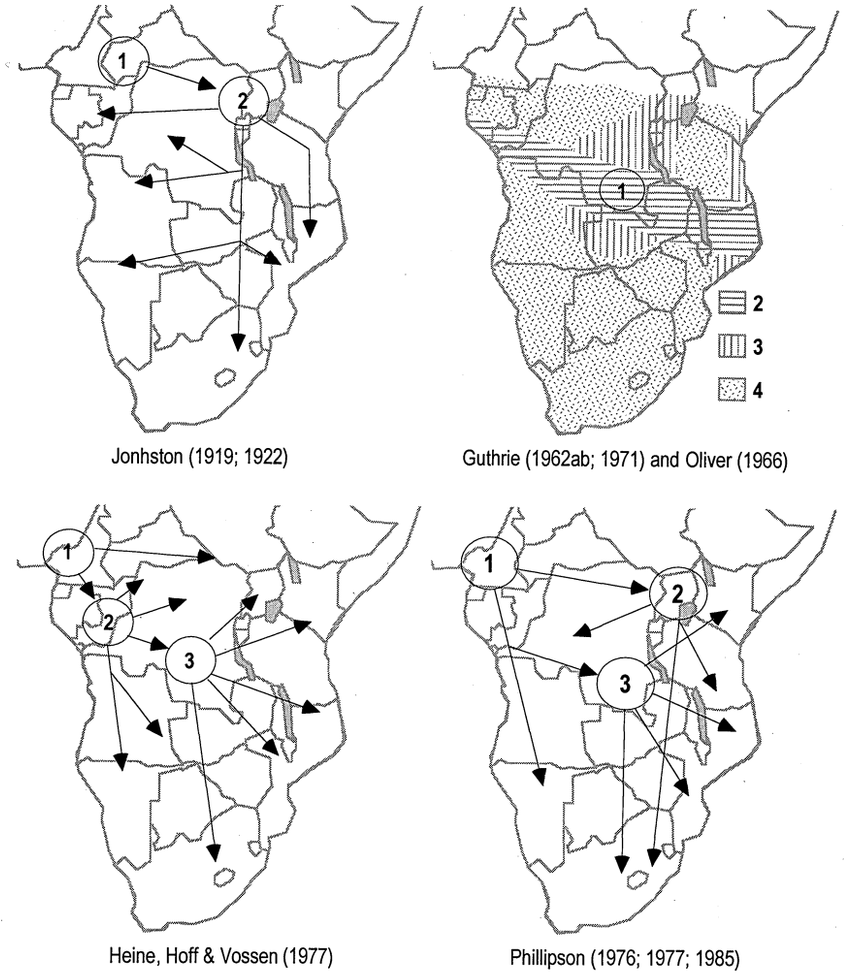



Figure 122 Four different proposals for the origin and spread of the Bantu languages

Johnston (1919: 23) had suggested "perhaps between the Shari basin and the Bahr-al-ghazal [in Chad]". His map specified the area to somewhere in what today is western Central African Republic, or possibly north-western Congo-Kinshasa (see Johnston 1922: xii). Guthrie (1962ab) strongly opposed Greenberg's suggestion and placed the original Proto-Bantu homeland "somewhere to the north-west of

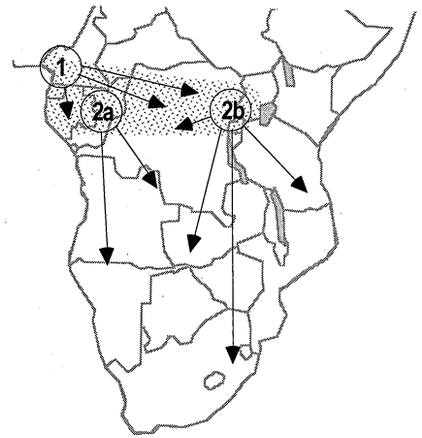



Figure 123 Vansina's (1994/1995; 1995ab) view on the origin and pre-Iron Age spread of the Bantu languages

Katanga [in southern Congo-Kinshasa], say between 20th and 25th meridians west and between the 5th and 7th parallels south" (1971: 10f). The reason for this location was because that is were he saw the least amount of linguistic diversity (see Guthrie 1967b: 98f). Nowadays nobody considers this to be a realistic argument. Instead an original homeland should be sought where the linguistic diversity is the highest, as Greenberg had done.[153]

When it comes to the dispersal of the Bantu languages, there is no single standard theory as of yet. All Bantuists nowadays agree that Proto-Bantu was spoken somewhere in the western and/or southern Cameroon some three to five thousand years ago. From there, the Bantu languages subsequently multiplied and spread into the areas where they are found today. There is agreement amongst scholars about the beginning (Proto-Bantu) and the end (modern languages), but not about what has happened in between (spread, dispersal, expansion).

Johnston (1922) and his contemporaries envisaged a rapid spread of people

[153] In one of his less celebrated contributions, Doke (1960) related the common Bantu root *-ntu* 'human being' to an Ancient Egyptian word, *punt* or *puanit*, which is the name used in hieroglyphic inscriptions for a place that is believed to have been located either somewhere along the northern coast line of present-day Somalia, or somewhere in north-eastern Sudan (see Kitchen 1993). The earliest references to *punt* date from ca 2,500 BCE, that is, during the so-called Old Kingdom. This theory has been rejected by most, if not all. Proto-Bantu is usually dated to sometime between five to three thousand years ago. "[I]t is unlikely that a Bantu people inhabited any area in north-east Africa during Ancient Egyptian times" (Cole 1971: 1). There are also more or less blunt attempts to prove an actual genetic affinity between the modern Bantu languages and Ancient Egyptian, for which see, for instance, Obenga (1985) and Ngom (1988). The "scientific" milieu in which such ideas prevail and flourish is admirably scrutinized by Howe (1998).



who invaded, conquered, and extinguished everything that came in their way. Thus "swept the Bantu invaders, armed, it may be, with novel iron weapons and led by a Hamiticized aristocracy" (idem: 23).[154] This view of a more or less single (rapid) movement of people eventually became referred to as 'the Bantu expansion'. The descriptions and explanations of this 'Bantu expansion' changed over time. The most often referred to version stems from the mid-60's when Oliver (1966) set out to synthesize the then known archaeological, anthropological and linguistic evidence. He outlined four stages of development (reproduced in figure 122), much of which was based on Guthrie's (1962ab) ideas about the origin and development of Proto-Bantu. Says Oliver (1966:361): "the speakers ... must have expanded very rapidly indeed in order to have achieved such a wide geographical dispersion along with such a small degree of linguistic divergence" and further that it "must have involved the substantial repopulation of half a continent" (idem: 362). The main cause for the 'Bantu expansion', as Oliver saw it, was population growth. Thus "the speakers of the Bantu languages grew in numbers much more rapidly than their rivals" (idem), which in turn was the result of a "food-producing revolution" (idem: 363), in particular, through the introduction of grain crops, wheat and barley.

Phillipson (1977; 1985) and Huffman (1989) associate the dispersal of the Bantu languages/people with the spread of Iron Age culture as deduced from, in particular, various forms of ceramic culture (specifically pottery decoration). "Although general correlation between the spread of the Bantu languages and that of Iron Age culture in what is now Bantu Africa is almost certainly an oversimplification, it seems to be holding up reasonably well to the more detailed information which is becoming available through current archaeological and linguistic research" (Phillipson 1976: 65). As had Oliver (1966) before him, also Phillipson (1976; 1977; 1985) set out to synthesize archaeological and linguistic facts, in which the classifications by Heine (1973) and Heine, Hoff & Vossen (1977) played an important role. Phillipson's (1977: 65) "hypothetical progression of Bantu-speakers", which he believes took some 2,000 years to complete (starting before 1,000 BCE), is reproduced in a simplified form in figure 122.

One of the more antagonistic view-points on the 'Bantu expansion' comes from Vansina (1979; 1980; 1994/1995; 1995ab). "Today this once-persuasive migration hypothesis is totally discredited, not only by new linguistic data but also by the accumulation of archaeological evidence" (1995: 190). Also Vansina tries to synthesize archaeological and linguistic facts. In his case, the linguistic material comes from the Tervuren group in Belgium (see, for instance, Bastin, Coupez &

[154] The reason he ascribed the leadership to a "Hamiticized aristocracy" was due to contemporary ideas that, roughly speaking, only a lighter-skinned master people could have had a culture high enough to perform such activities; see Howe (1998) for an excellent historiographical discussion of such ideas.

De Halleux 1981; and Bastin 1983). Even though he recognizes that "the reconstruction of a valid Bantu language family [has] proved to be extremely difficult" (1994/1995: 16), he nonetheless thinks that "[n]early definite results have [now] become available" (idem; see also 1995b: 180).[155]

Vansina completely rejects the correlation between the spread of Bantu languages/people and Iron Age culture. According to him, the Bantu speakers and their languages spread over the entire Bantu area long before the Iron Age; that came later. Vansina clearly does not reject the idea of a dispersal of Bantu languages/people, however. To him, there was an original dispersal from present-day southern Cameroon/Nigeria all the way to the Great Lakes area in (non-coastal) East Africa. Eventually they came to occupy much of the rainforest area. "Thus Proto-Bantu spawned a number of new languages in this North Bantu area ... Two dialects among these were the cradle for later large-scale expansion [sic!] and can be named Proto-West Bantu and Proto-East Bantu" (1995b: 16f; see also figure 123). The process as such was slow and it involved "many successive Bantu dispersals rather than a single continuous expansion" (1995a:190). "In this process the spread of the proto-Bantu language is then pictured as occurring in irregular patches which remained in good communication with each other. The diffusion was sometimes halted, but sooner or later it started again. It probably included reverses as well as advances" (idem: 193). The main cause of these dispersals was, according to Vansina, the growth of a farming culture. "Three dynamics must be considered here: the initial adoption of rudimentary farming, the intensification of farming during a long subsequent formative period until farming had become the main source of food and, finally, later innovations in mature farming systems" (1994/1995: 17).

All of the migrational models just described rely heavily on linguistic data. In fact, it seems customary among non-linguists (as well as linguists) to use language classifications based on selected typological features, usually vocabulary studies, to draw conclusions about past migrations of people. I find this activity partly suspect. There are no safe ways of equating contemporary linguistic classifications with prehistoric people and cultures. A question that too few Bantu historians seem to ask is: "How does one extrapolate from language to culture to society?" (Kiriama 1990: 172; see also Nurse 1997).[156] Nor are there any safe ways of

[155] Vansina's (1995a: 180; 1995b: 16) trust in lexicostatistical classifications seems alarmingly uncritical. He thinks that "it [has] been possible to establish a reliable overall genealogy by lexicostatistics ... including nearly all Bantu languages" (1995b: 16) and further that lexicostatistics is a technique which "[t]o a certain degree ... allows one to propose a very approximate absolute chronology as well" (idem). The (unpublished?) lexicostatistical studies that he refers to are those of the Tervuren group. As for the lexicostatistical technique, the still most readable account is that of Swadesh (1955), while critical assessments include those of, for instance, Hymes (1960ab) and Bergslandt & Vogt (1962). See also Nurse (1997).

[156] Sapir's (1921: 207ff) well-known chapter on "Language, race and culture" is still worth reading.



equating archaeologically established cultures with people and/or languages (see, for instance, Jones 1997). Does the spread of a certain pottery culture necessarily indicate the spread of a people? Or a language? Vansina (1995a: 194, note 32) provides a good case in point: "although all Bushong speak the same language[,] the northern Bushong and their northern neigbours (who speak other languages) used household pottery made on the banks of the Sankuru river, whilst southern Bushong and their southern neighbours (who speak other languages) used household pottery of a different style made on the banks of the Lulua river."

I have no grand summary to offer on the above, partly because archaeology is outside my field of inquiry (and competence). However, assuming that there is some grain of truth in the migrational models discussed above, one can at least make three observations. Firstly, the location of Proto-Bantu should be sought in southern Nigeria/Cameroon. Secondly, there is a major dispersal centre in the Great Lakes area (for which see also Möhlig 1981). Thirdly, what Guthrie (1962ab; 1971) and Oliver (1966) saw as the original homeland area and the area of the initial spread seems likely to be the focus of the most recent spread. Possibly it involved languages, or possibly it involved only the diffusion of linguistic features. We can in fact see traces of all these in the distributional data in chapter 4. The highest amount of variation is found in the north-west and the north-east, the two initial dispersal areas. The south-west seems to have some affinities with the north-east (similar noun class pairings, type B systems), and so it would look as if these two areas have been separated by a relatively more recent area in the middle. Such a scenario also adds support to some of the Proto-Bantu features reconstructed in the previous section. Thus pairings 3/10, 9/4 and 14/4 as well as single classes 20 and 23 are found in more or less all areas not affected by the latest development. This also lends support for accepting class 7 as a Proto-Bantu diminutive class, contrary to what was reconstructed above. Be that as it may, if this admittedly simplistic three-stage migrational model, shaky as it is, holds true, then these features (which were noted as less probable earlier) could well represent retentions of a long-lost Proto-Bantu noun class system. However, I would not like to press this issue too hard. Instead it is time for a conclusion.

## 5.4 Summary and conclusion

The main results of the reconstruction work are tabulated in figure 124, where uncertain features are noted in parentheses. If we start with Meeussen's (1967) reconstruction of the Proto-Bantu noun class inventory, the distributional data support at least two modifications. Firstly, we can re-write pairing 19/13 as simply

| | PROBABLE | LESS PROBABLE |
|---|---|---|
| SYSTEM TYPE: | 1A | |
| CLASSES AND PAIRINGS: | 1/2; 1a/2x; 3/4; 5/6; 7/8; 9/10; 11/6; 11/10; 12/13; 14/6; 15/6; 16; 17; 18; 19 | (3/10); (9/4); (14/4); (20); (23) |
| INFINITIVE CLASS: | 15 | |
| DIMINUTIVE CLASSES: | 12; 19 | (5), (11) |
| AUGMENTATIVE CLASSES: | 7 | (20) |
| LOCATIVE CLASSES: | 16; 17; 18 | (23?) |
| LANGUAGE NAME CLASS: | 7 (kintu) | |

Figure 124 Summary of likely Proto-Bantu noun class features
Parentheses indicate uncertainty. Some of the classes listed in pairings must also be reckoned to have functioned as single classes, particularly classes 6 and 14, and probably others as well; see Meeussen (1967), Kadima (1969: 189ff), Guthrie (1971: 9ff), and Welmers (1973: 163ff) for a good summary.

19 (and drop the "probably also" attribute). The plural of this class is simply too uncertain. The present distribution of 19/13 could well be the result of a post-Proto-Bantu spread. Secondly, we can add pairing 11/6 due to its maximally wide (and dense) distribution.

Other additions/amendments are hard to argue convincingly for. Of the noun class pairings with less widely attested distributions, there are none that could be added with absolute certainty. Yet pairings 3/10, 9/4 and 11/4 seem to be potential candidates due to, firstly, their wide and spotty distributions and, secondly, that corresponding noun class pairings are also reconstructed for Proto-Benue-Congo (assuming that the latter is valid). Even though both these factors jointly decrease the likelihood of these pairings being post-Proto-Bantu innovations, their current distributions are nonetheless too sparse for safe conclusions. We cannot, after all, be very certain about De Wolf's reconstruction of Proto-Benue-Congo.

The distributional data give support for infinitive class 15, diminutive classes 12 and 19, augmentative class 7 and locative classes 16, 17 and 18. Uncertain additions include diminutive class 11, augmentative classes 5 and 20, as well as locative class 23. Moreover, Proto-Bantu is likely to have had a noun class system of type 1. Also, Proto-Bantu should perhaps be re-dubbed 'Kintu'.

# Chapter 6

# Summary, conclusions and comments

There are basically three lines of research that I have tried to pursue in the chapters above: linguistic typology, dialectology, and historical linguistics in the form of reconstruction. These correspond roughly to the main themes of chapters 3, 4 and 5 respectively, although they have been difficult to keep consistently apart. Diachronic and synchronic threads have been pursued in all chapters. These aspects are summarized briefly below. However, the presentation here is thematic and deviates slightly from the chapter organization above.

## 6.1 In summary of the main themes

Chapter 1 introduced the study. There a general outline of the methodology was presented, which included an introductory characterization of the object under study (Bantu noun classes). Two main goals of the study were presented, the first of which was to explore typological variation, while the second aimed at relating some of this variation to diachronic issues.

### 6.1.1 The first goal

The first goal was the main concern of chapters 3 and 4. In chapter 3, the typological features of Bantu noun class systems were presented and discussed. The main focus was on the so-called traditional noun class systems, while the more reduced forms of noun class systems were introduced at the end of the chapter. There a typological matrix (figure 43) based on a feature analysis was presented, which placed different types of noun class systems in relation to each other based on the function and form of, firstly, their noun prefix systems and, secondly, their concordial systems.

The definition of 'noun class' has deviated slightly from the established definition of 'gender'. In particular, the definition that I have used also included

languages lacking agreement phenomena. Even though this has been beneficial for my purposes, this is not to say that 'noun class' and 'gender' should be treated as separate phenomena. They are both grammatical strategies for noun classification. However, as the typological matrix and diachronic model offered in chapter 3 show, languages lacking agreement phenomena are also rightly treated together with the more traditional type of noun class systems. One suggestion would be to use 'noun class' as a more general term somehow along the lines discussed at the end of chapter 3. This may, however, turn out to be a Bantucentric suggestion.

Chapter 4 also aimed at the first goal. There I traced the geographical patterning of a selection of noun class features, specifically noun class pairings, infinitive, diminutive and augmentative classes, and the classification of language names. This survey revealed a number of putative coherence areas, some of which were more clear than others. Among the clearer ones, there were, for instance, the distributions of class 12 (the ka-belt), 4C=9C mergers, 4≈8 mergers, 8≈10 mergers, pairings involving plural class 2 (other than that of 1/2), and several others.

### 6.1.2 The second goal

The second goal established in chapter 1 has been pursued in all the three main chapters 3, 4, and 5, but not to equal lengths. Chapters 3 and 4 were mainly concerned with synchronic-typological issues, but a few diachronic discussions were also pursued. Chapter 3 concluded with a diachronic model describing how some of the typological characteristics of Bantu noun class systems may change over time (see figure 51). The idea that animacy is a feature increasingly superimposed on a traditional-type noun class system seems to be a workable basis for explaining diachronic aspects of Bantu noun class systems. Chapter 4 contained only sporadic comments and discussions about the development of individual features. Chapter 5 was solely devoted to diachronic issues; more specifically, the distributional data in chapter 4 were tried for reconstructive purposes, which resulted in a slightly different noun class system compared to some of the previous reconstructions, especially with regard to the inventory of noun classes, noun class pairings and some noun class functions (see figure 124).

### 6.1.3 A few words about method and sources

The main underlying methodological procedure, especially in chapter 4, has been to start with empirical data, establish patterns from that and then try to explain them. In my view, there should be little need to defend a procedure of this sort, which could be labelled 'data-to-explanation'. However, this is not a methodological procedure preferred by all linguists. Some even seem to deplore it,



like Berg (1998), who says that "this post hoc procedure suffers from a serious deficiency. There are an enormous number of areas from which it may be possible to develop candidate explanations. The researcher is free to choose whichever area suits the linguistic data best, in the hope that some kind of match between data and theory can be effected" (idem: 54f). Contrary to Berg, this is exactly what I would have thought was the major strength of a data-to-explanation procedure.

All comparative surveys inevitably reveal problems of various kinds. The most notorious one is related to sources. Many of the issues contained in the present study have been dealt with only briefly and superficially, especially much of what was done in chapter 3. In-depth studies would require access to native informants which I have not had, at least not to the extent that would be needed for a comparative survey of the present kind. Thus secondary sources have effectively been my major source of information. This has not been without problems. Different grammarians use different frameworks of description, choose to focus on different things, belong to different time settings, and so on and so forth. By using secondary sources one is inevitably stuck with these facts, and much time is devoted to the analysis of what the sources contain, be it explicitly claimed or not.

One particular problem deriving from the use of empirical material reliant on secondary sources is the risk of missing important generalizations. The assigning of BM labels to Bantu noun classes is a case in point. Historically related noun classes are sometimes labelled differently; for instance, the many occurrences of class 8 displaying dental/alveolar consonants, some of which I have re-interpreted as 8=10 mergers. The success of a reconstruction of the sort that I have pursued in chapter 5 relies crucially on the fact that one can trust the correctness of the BM numbers. I have tacitly assumed that they have been correctly assigned (though see comments on individual languages in supplementary section A). At any rate, the severest problem is not the nature and reliability of the available data, but rather the lack of it. The more language descriptions one can include in a comparative survey, the more likely it is that inconsistencies and/or flaws can be worked out by simple comparison. In fact, there is an acute need for more descriptive work to be performed and made avialable through publication. As for the present study, I have used all sources which I have been able to lay my hands on (more or less). This does not, of course, mean that I have been able to find or include all available material.[157]

[157] Just as this study was being finalized, our department received, through Honoré Vinck of the Centre Aequatoria at Bamanya, Congo-Kinshasa, a complete back-catalogue of the journal *Annales Aequatoria*, which contains much linguistic material for languages of zones C and L, thereby filling many gaps in my sample. Unfortunately, they arrived too late to be be included herein.

## 6.2 The remains: a brief memo for future research

There are several issues which I have dealt with only briefly. This concerns much of what was discussed in chapter 3. Many of the distributions shown in chapter 4 could also be made more detailed if one takes, for instance, lexical semantics into account.

There are many in-depth studies of individual languages, true, but there is a definite need for more wide-scale comparative surveys on a multitude of issues, like class-resolving strategies, the relationship between the so-called impersonal constructions and indefinite resolution, the full typological and geographical extent of general animate concords and its putative relationship with class 1a animals. We also need more detailed inventories of noun class pairings, including exceptional (or 'inquorate') ones. In fact, a comparative study of infrequent and unusual class pairings might prove to be very interesting, especially if it were to reveal some kind of systematicity. Another intresting question in want of an answer is: can different paths of change (like those hypothesized in the diachronic model in figure 51) be correlated with different social settings?

There are a number of further questions which relate to individual noun classes. What is the origin of classes 2a and 2b? Were classes 4 and 10 really sepaarte classes (concords and all) in Proto-Bantu? Where do dental/alveolar class 8 prefixes come from? Are they the result of previous mergers? If so, what classes are involved? What is the origin of class 12? What is the history behind its present distribution? What are the proper distribution and history of class 13? Are the *ti-* like forms old or new? Why are there concrete items (like 'bow' and 'canoe') in class 14? Why are there body parts (like 'arm' and 'ear') in class 15? Where does class 23 come from? Is it a noun class? I could add a whole battery of questions related to these, but even this small set suffices to point at the selective nature of the present study. Not all issues have been dealt with, and not everything dealt with has received answers.

# Supplementary section A

# Noun class data for Bantu languages

This supplementary section contains the noun class data for individual Bantu languages. In addition to noun classes, noun class pairings and noun class mergers, information about infinitives, diminutives and augmentatives has also been added, that is, where it has been available. The initial set of data derives from Malcolm Guthrie's *Comparative Bantu* (1971: 30ff), which has been amended with the help of a number of additional sources, either to complement, correct or verify Guthrie's data. Marcel Kadima's (1969) comparative study of Bantu noun classes has also been of great use,[158] as have many other sources (listed below).

Noun classes are numbered according to the Bleek-Meinhof system, and only sporadically do morphemic/phonemic forms appear. When they do it is either because a source gives so-called extraneous classes (Guthrie's terminology) which have not been identified according to the Bleek-Meinhof system, or because the morphemic forms are important for the discussion that appears in the main text. For typographical reasons, the phonological forms are only approximate (ignoring many diacritics and "strange" characters), since phonology is not at issue.

## Notations

By necessity, various ad hoc notations have been used in order to accommodate different types of information that need to be distinguished.

7/8 Non-underlined classes indicate *assumed* information, that is, assumed by Guthrie (1971: 29, section B) unless stated otherwise. According to Guthrie, pairings 1/2, 3/4, 5/6, 7/8, 9/10 and 14/6 can be assumed to exist in all Bantu

[158] Kadima's work has been culled rather selectively. In particular, chapters 3 (noun class pairings) and 4 (noun class mergers) have been of great import. Chapter 2 (noun class prefixes), on the other hand, has been used only to some extent.

languages, unless he explicitly says something else. Class 15 as the infinitive class is likewise assumed, but for zones D through S only. (All non-underlined question-marks are my comments.)

7/8 Single underlining indicates information explicitly mentioned by Guthrie (1971). Underlined class numbers separated with non-underlined slashes (as in "14/6") mean that the classes are mentioned but not the pairing as such.

7/8 Dotty underlining is used where information derived from Kadima (1969) somehow differs from that provided by Guthrie (1971) or some other source. Thus "9/10" means that Kadima explicitly claims an existence of that class pairing, while it is either tacitly assumed, not mentioned at all or explicitly denied by Guthrie or someone else.

7/8 Double underlining is used for information derived from some extra source (XS) in which case a reference to the appropriate XS is given in square brackets at the end of the line (as in "[XS77]"). A full list of the XSs follows further below.

~~7/8~~ Overlining indicates explicitly claimed absence of classes and/or class pairings. Overlining is used in combination with the above-mentioned underlining types, for instance, "~~12~~" indicates absence claimed by Guthrie, while "~~12~~" indicates absence claimed by Kadima.

-> An arrow means that a certain class or class pairing claimed by one source has been reinterpreted by another source used or, in a few cases, by me. For instance, "7/8 -> 7/10" means that while Guthrie claims a pairing 7/8, another (elsewhere specified) source makes another interpretation of the same class pairing. Non-underlined reinterpretations, as in "7/8 -> 7/10", are reinterpretations offered by me.

= An equal-sign indicates phonologically and/or morphologically merged classes (as in "3=14"). In combination with the different underlining types, we get, for instance, "3=14/4", which means that Guthrie explicitly mentions the existence of classes 3 and 4, Kadima claims that classes 3 and 14 have merged or at least are indistinguishable, while information about the class pairing as such derives from some extra source.

[ ] Square brackets are used in a variety of functions, like variant language



names, to add short comments (including references to extra sources), or to give morphemic examples of some sort, as in "11[nù]". Longer comments have been added on separate lines, or where space has permitted.

~ A tilde is occasionally used to separate allomorphs; for instance, "5[ø~dji]" means that the prefix of class 5 can either be a zero-morpheme (no morpheme at all) or have the form *dji*, with a distributional pattern (presumably) defined by phonology.

ø The ø-sign is used for zero-morphemes, not a certain type of vowel.

* An asterisk indicates reconstructed forms as in, for instance, "*ba-".

( ) Whenever a language code appears in parentheses, like "(C30)", it means that the language in question has not been assigned any map entry point, simply because I have not been able to figure out where to locate it. In cases where such omitted data are important, they are discussed in the main text.

AUG "AUG:" is used to mark augmentative classes. "+AUG:" means that the augmentative classes are also used for primary classification (that is, they are also used for non-augmentative nouns), while "-AUG:" means that they are used for secondary classification only. Note that "AUG:" without a plus or minus sign means that relevant information is lacking.

BM "BM" refers to the Bleek-Meinhof numbering system (see chapters 1 and 3).

C "C" is an abbreviation of "concord". It occurs mainly in constructions like "4+10C", which means that the noun prefix of class 4 employs concords that are identical to those of class 10. To this, there is a corresponding "10+4C". Both of these can be rephrased as "4C=10C" which means that the concords of classes 4 and 10 are identical. Note also that, for instance, "3+11=14C" means that the noun prefix of class 3 is associated with concords that are identical to those of a merged class 11=14, while "3+11C=14C" (with an additional "C" in between the "11" and the "=") means that the concords associated with the noun prefix of class 3 are identical to those of two separate noun classes 11 and 14.

DIM "DIM:" is used to mark diminutive classes. "+DIM:" means that the diminutive classes are also used for primary classification (that is, they are used for non-

diminutive nouns), while "-DIM:" means that they are used for secondary classification only. Thus "DIM:" without a plus or minus sign means that relevant information is lacking.

INF "INF:" is used to mark infinitive classes, as in "INF:15".

XS "XS" means 'extra source' and refers to sources other than Guthrie (1971) and Kadima (1969). See immediately below.

## Key to extra sources (XSs)

In the data list that follows further below, references to sources are given as short catch-phrases of the type 'XS1', 'XS2', 'XS3', and so on, where "XS" stands for 'extra source' and the numeral refers to the list below. (Full details are given in the bibliography.)

1 Guthrie (1956)
2 Vossen (1991/1992)
3 Botne & Salama-Gray (1994)
4 Gowlett (1989)
5 Taylor (1985)
6 Ittmann (1939)
7 Guarisma & Paulian (1986)
8 Paulian (1986)
9 Nurse & Hinnebusch (1993)
10 Batibo (1985)
11 Dammann (1957)
12 Möhlig (1967)
13 Hedinger (1987)
14 Guma (1971)
15 Ziervogel (1969)
16 Schadeberg (1990)
17 Turvey et al. (1977)
18 Booysen (1982)
19 Benson (1964)
20 Poulos (1990)
21 Cole (1965)
22 Lafon (1991)
23 Whitehead (1899)
24 Fisch (1977)
25 Davey (1965)
26 White (1949)
27 Van Sambeek (1955)
28 Whiteley & Muli (1962)
29 Cole (1955/1975)
30 Griffin (1915)
31 O'Neil (1912)
32 Price (1946)
33 Junod (1933)
34 Laman (1912)
35 Fortune (1957)
36 McLaren (1963)
37 Ziervogel & Mabuza (1976)
38 Louw (1978)
39 Vail (1971)
40 Viljoen et al. (1984)
41 Perrott (1957)
42 Richardson (1967b)
43 Doke (1963a)
44 Gowlett (1992)



45 Ménard (1908)
46 Hullquist (1988)
47 Vansina (1959)
48 Kimenyi (1978)
49 Woodward (1926)
50 Guthrie & Carrington (1988)
51 Fourie (1993)
52 Cuénod (1967)
53 Tylleskär (1986/1987)
54 Wentzel (1983)
55 Doke (1954)
56 White (1944)
57 Blanchon (1987)
58 Cole (1967)
59 Taljaard et al. (1991)
60 Lombard (1985)
61 Fivaz (1986)
62 Ziervogel et al. (1981)
63 Schapera & Van der Merwe (1942)
64 Meinhof (1948)
65 Struck (1911)
66 De Clercq (1907)
67 Johnson (1922)
68 Swift & Zola (1963)
69 Helmlinger (1972)
70 Richardson (1967a)
71 Jacquot (1967; 1982)
72 Van Hove (1911)
73 Skolaster (1914)
74 Adams (1907)
75 Torrend (1914)
76 Odden (1996)
77 Laman (1936)
78 Muroni (1989)
79 Hannan (1981)
80 Welmers (1973)
81 Sommer (1995)
82 Calloc'h (1911)
83 Dimmendaal (1988)
84 Guarisma (1969)
85 Mukash-Kalel (1982)
86 De Blois (1975)
87 Dugast (1967; 1971)
88 Homburger (1925)
89 Richardson (1957)
90 Tucker & Bryan (1957)
91 Jacquot (1983)
92 Ndamba (1977)
93 Ashton (1947)
94 Poulos (1984)
95 Gusimana (1972)
96 Bennett et al. (1985)
97 Pelling & Pelling (1974)
98 Mchombo (1998)
99 Maganga & Schadeberg (1992)
100 Sommer & Vossen (1992)
101 Doke (1933; 1963b)
102 Dos Anjos Martins (1991)
103 Prata (1960)
104 Inkelas (1992)
105 Forges (1983)
106 Fortune (1955)
107 Hulstaert (1993)
108 Kloppers (1994)
109 Viljoen & Kamupingene (1983)
110 Canonici (1993)

## Noun class data for individual Bantu languages

The (non-attributed) word 'entry' refers to what commences with a bold-printed language name; for instance, the single map entry point 'A15' is represented by

three entries. Some languages have been given more than one entry due to the fact that data derive from several sources.

The list below is arranged according to the map entry points. Conflated map entry points ending with a zero (A20, A40, A50, A60 and A90) are not listed here as such, but in non-conflated forms, that is, A24, A25, A26 and so on. The language names used as entry headings below are those which are used as reference names in the main text. This is sometimes identical to the name used by my sources, sometimes not. Differing and otherwise oft-used name variants are given in square brackets.

Single classes and singular/plural pairings are listed in numerical order according to the BM numbering system. Thus some information has necessarily been duplicated. For instance, a class pairing such as "3=14/4" has also been entered as "14=3/4". This applies also to concordial mergers. Thus if there is a class "3+14C", there will be another class "14+3C" further down the same entry. This does not, however, apply to classes 20, 21 and 22; while "21+5C" is noted, the corresponding "5+21C" is not (see chapter 4 on this).

**A11 Lɔndɔ**

1/2; 3/4; 5/6; 7+9C/8; 9+7C/10+19C; ~~11~~; ~~12~~; ~~14~~; 17; 19+10C/13; INF:5; +DIM:19/13

**A15 Western dialects of Manenguba [Mbɔ; Myenge; Akoose]**

1/2; 1a/2; 3/2; 3/4[N]; 5+13C/6; 7/6; 7/8; 9/10; 14+19C/4[N]; 14+19C/6; 19+14C/13+5C; INF:5+13C [XS13]

The above analysis refers to two languages/dialects spoken in the western parts of the Manenguba-speaking area: Myenge and Akoose (see Hedinger 1987: 26+91f). These have been labelled "western" by me.

**" Eastern dial. of Manenguba [Mbɔ; Elong; Belon; Mwahed; Mkaa'; Mwaneka]**

1/2; 1a/2; 3/2; 3/4[N]; 5+13C=14C=19C/6; 7/6; 7/8; 9/10; 14+5C=13C=19C/4[N]; 14+5C=13C=19C/6; 19+5C=13C=14C/13+5C=14C=19C; INF:5+19C=13C [XS13]

This analysis refers to four languages/dialects spoken in the eastern parts of the Manenguba-speaking area: Elong (or Belon) Mwahed, Mkaa' and Mwaneka (see Hedinger 1987: 26+91f). These have been labelled "eastern" by me.

According to Richardson (1957: 25), the name ẹlɔ̀ŋ (Elong) contains a class 7 prefix e-.

**" Ekanang dialect (Mbouroukou)**

1/2; 1a/2; 3/2; 3/4[N]; 5+14C=19C/6+13C; 7/6+13C; 7/8; 9/10; 14+5C=19C/4[N]; 14+5C=19C/6+13C; 19+5C=14C/13+6C; INF:5+19C; DIM:ma/ba [XS13/XS89]

7/8 = claimed by Guthrie, 7/8 = claimed by Kadima, 7/8 = claimed by extra source



This is a Manenguba language/dialect spoken in the north-eastern parts of the Manenguba-speaking area (see Hedinger 1987: 26f+91f).

According to the second extra source (Richardson 1957: 13), the prefixes **ma-/ɓa-** "have a diminutive implication".

**A24 Dụala**

1/2; 3/4[mi]; 5/6; 7/8; 9/6; 9/10+19C; ~~11~~; ~~12~~; ~~12/14~~; 14/4[mi]; ~~14/6~~; 15; 16; 19+10C/13; INF:5; +DIM:19+10C/13 [XS6/XS69]

The first extra source (Ittmann 1939) uses somewhat obsolete BM numbers.

**A25 Ọlj**

1/2; 3/4; 5/6; 7/8; 9/10; 14/6; INF:5

**A26 Pọngọ**

1/2; 3/4; 5/6; 7=19/8; 9/10; 14/6; 19=7/8

**A32 Banôho [Banɔɔ]**

1/2; 3[N~mw]/4; 5/6; 7/8; 9/10; 14/4; 19/13[vol] [XS74]

**" Bapuku [Bapọkọ]**

1/2; 3[N~mw]/4; 5/6; 7/8; 9/10; 14/4; 19/13[lo] [XS74]

**A34 Bẹnga**

1/2; 3/4; 5/6; 7/8; 9/6; 9/10; ~~11~~; ~~12/14~~; 14/4; ~~14/6~~; 19/4; 19/13; INF:5; +DIM:19/13

**A43 Mbɛnɛ [Basa]**

1/2; 3=14[N]/4; 5/6; 7/8; 9/10; ~~11~~; 11/6; ~~11/10~~; ~~12~~; ~~14~~; 14=3[N]/4; 19/13[di~tʃil]; INF:5

Guthrie (1971: 31) claims a merger of classes 3 and 14 as well as a non-occurrence of class 14. He also claims a non-occurrence of class 11 (idem), while Kadima (1969: 92) claims the existence of pairing 11/6. Kadima could have misinterpreted some prefix.

**" Mbɛnɛ [Basaa]**

1/2[bo~ba]; 3[N]+15C/4; 5/6; 7/8; 8; 9/6; 9/8; 9/10; ~~11~~; ~~14~~; 15+3C/6; 16; 18; 19/13[dì]; í -> 23?; -DIM:19/13[dì],'child' [XS83]

According to the extra source (Dimmendaal 1988: 20), this deals with the Mbene dialect, that is, the same as that used by both Guthrie (1971) and Kadima (1969).

There are two diminutive formations in this language, one with classes 19/13 and another with the word **măn** 'child' (Dimmendaal 1988: 48).

Pairing 11/6 is not accepted by the extra source (Dimmendaal 1988: 32), who reinterprets earlier claims of both 14/6 and 11/6 pairings as 15/6 ones instead. Thus possibly this can be seen as an implicit claim of a 11=14=15 merger.

**" Mbɛnɛ [Basa]**

1[mù~mà]/2[bò]; 1a[ø~N]/2a[ba]; 1a[ø~N]/2b[bo]; 3[N]/4; 5/6; 7[ø~y]/8[bi~gu]; 9/6; 9/8[bi]; 9/10; 15[ø~w]/6; 19[hi]/13[di~du] [XS73]

7/8 = claimed by Guthrie, 7/8 = claimed by Kadima, 7/8 = claimed by extra source

The set of pairings derive from the examples given by the extra source (Skolaster 1914: 745ff; data ultimately from Schürle 1912). I do not know to what extent this is a language/dialect different from what is described in the above entries.

The prefix of class 8 seems to have two allomorphs, **bi-** preceding consonant stem and **gu̱-** preceding vowel stems. (Thus it has only the form **bi-** as plural of class 9 since it is attached onto the singular form which commences with a nasal.)

### A44 Tùnɛn [Banɛn; Nɛn]

1/2; 3=11/4=10?; 3=11/6; 5/6; 7/8; 9[mi~mel/10[mi~mel=4?; 11=3/4=10?; 11=3/6; 14[o~ul/8; INF:14[o~ul; 19

Kadima (1969: 115) claims a 4=10 merger, which is partly contradicted by one of the extra sources (see below).

Kadima (1969: 110) claims both a near-merger 3C=11C and a merger 3=11, though he sublabels the different 3's as "3a" and "3b" respectively. He also claims a non-existence for class 11 (idem: 84), so it would seem that he states something like "3b=11+3aC". I do not know what to make of it. A 3=11 merger is, however, verified by Dugast (1971: 80 et passim; see also below).

There seems to be some disagreement about the correct labelling of what Guthrie (1971: 32) labels "14". Similar prefixes are identified as that of class 15 by extra sources used below.

### " Tùnen

1/2; 3/4; 3/6; 5[nì~nè]/6; 7/8; 9/6; 9/10; 11/13; 14[bù~bò]/6; 15[ù~ó]; 19/13 [XS7]

The extra source (Guarisma & Paulian 1986: 173) claims an 11/13 pairing, but gives only the putative plural form **tuìŋ** 'fire wood'.

### " Tùnen

1/2; 3=11/4; 3=11/6[ma~mwe]; 5/6; 6a[am]; 7/8; 9/6; 9/10; 11=3/4; 11=3/6; 14=20[bù~bò]/6; 14=20/8; 15[ù~ò]; 19/13; 20=14[bù~bò]/6; 20=14/8; INF:15; DIM:19/13,'child' [XS87]

The extra source (Dugast 1967; 1971) makes no mention of pairing 11/13. Neither is there full support for Kadima's claim of a 4=10 merger (see entry above). Identical prefixes and concords are given except for two forms: an emphatic demonstrative form **míteni** class 4 versus **mítəni** class 10 (Dugast 1971: 140f; the second syllable in each form should have a vertical stroke on it) and a possessive form **yə́m** class 4 versus **yə̂m** class 10 (idem: 136).

There are two diminutive formations in this language, one with classes 19/13 and another with the word **hèn** 'child' (Dugast 1971: 86).

### A45 Ngyõ'õ

1/2; 3/4; 5/4; 5/6a[a]; 7/8; 9[N]/10[N]; 11/13; 14[pu]/4; 14[pu]/8; 14[po]/6[ma]; 19[y]/6?[mey]; a/i; gh/zh [XS89]

The extra source (Richardson 1957: 29f) gives no BM numbers for the two pairings, with prefixes: **a-**/**j-** and **ɣ-**/**ʒ-** (= gh/zh), both of which are exemplified with nouns denoting animals. The **j-**prefix is identical to that of class 4 and one of the forms given for class 7, while the **ɣ-** prefix is identical to those of 1, 6 and one of the forms given for 7. Both prefix-pairs are exemplified with nouns denoting animals (idem).





The plural of class 19 has the form **məy-** and is most probably that of class 6 **ma-** added onto the singular class 19 prefix **y-**.

As for concords, the extra source says that "agreements are at times unpredictable" (idem: 30).

### A46 Mandj

1/2; 3/4; 5/6[mwel; 7/8; 9/10; 11; 14/6; 15; INF:15 [XS1]

### A51 Fa'

1/2; 3/4; 5/6; 7/8; 9/10; 14/6; 19/13[til; INF:7

### A52 Kaalọng

1/2; 3/4; 5/6; 7/8; 9/10; ~~11~~; 14/6; 19/13[dil]

### A53 Bafia

1/2; 1a/2; 3[N]/4=6; 3a[ì]/4=6; 5/6=4; 7/8; 9/10; 19/13; INF:5; DIM:maa/boo [XS7/XS84]

Diminutives are formed with a **máá´**-prefix in the singular and **Bɔ́ɔ́´-** in the plural (Guarisma 1969: 54). (See original source for explanations of the orthography.)

### A54 Ngayaba

1/2; 1a/2a; 3/4=6?; 5/6=4?; 7/6=4?; 7/8; 9/10; 19/13; INF:5 [XS89]

The extra source (Richardson 1957: 32) says "it is difficult to distinguish Cl. 4 from Cl. 6, or to establish whether these are really one and the same class".

### " Djanti

1/2; 1a/2; 3[ǹ]/4; 5/6; 7/4; 7/6; 7/8; 9/2; 9/6; 9/10; ~~11~~; ~~14~~; ~~15~~; 19/13 [XS7]

### A61 Lùndá

1/2; 1a/2; 3[w~ǹ]/4; 5/6; 5/13[lè]; 7/8; 9/2; 9/6; 9/10; ~~14~~; ~~15~~; 19/13[lè] [XS7]

### " Àsém

1/2; 1a/2; 3[w~ǹ]/4; 5/6; 7/8[vy~vì]; 9/6; 9/10; 11/13[lè]; ~~14~~; ~~15~~; 19/vì [XS7]

Pairing 19/**vì** seems likely to be that of 19/8:

### A62 Yambasa

1/2; 1/6[mal; 3/4; 5/6a[aN]; 7/8; 9/10; ~~11/10~~; 11/13; ~~12~~; 14/6[mal; 15/6[mal; 19/mu; INF:15 [XS8]

Guthrie (1971: 32) gives the prefix form **ma-** as the plural prefix for classes 14 and 15. This is labelled "6a" by the extra source (Paulian 1986: 249). I have, however, kept Guthrie's label, and in turn relabelled the extra source's class 6 (**aN-**) as "6a" instead.

**"** **Nùbàcâ**

1/2; 1a/2; 3[àNC]/4[ǹ]; 5[nì~ì]/6a[àNC]; 7/8; 9/10; 11[nù]/13; 14/6[mà]; 15[kù]; 19/mù [XS7]

**"** **Nùgùnù**

1/2; 1a/2; 3[òNC~ùNC]/4[èNC]; 3[òNC~ùNC]/6a[àN]; 5[nì~è]/6a[àN]; 7/8; 9/10; 11[nù~nò]/13; 14/6[mà]; 15[gù~gò]; 19/mù [XS7]

**"** **Nùkàlònè**

1/2; 1a/2; 3[àNC]/4[sì~ìNC]; 5[nì]/6a[àNC]; 7/8; 9/10; 11[nù]/13; 14/6[mà]; 15[kù]; 19/13; 19/mù [XS7]

**A63** **Mangjsa**

1/2; 3/4=5; 5=4/6; 5=4/te; 15; te/6; te/te; INF:15

**"** **Njòwì**

1/2; 1a/2; 3[ǹ]/4; 3a[à]/6; 5/6; 7/8; 9/6; 9/10; 11[ù]/5; ~~13~~; ~~14~~; ~~15~~; 19 [XS7]

**A64** **Bacɛnga**

1/2; 3/4; 5/6[ma]; 7/8; 9/10; 14/6[ma]; 19/mo

Guthrie (1971: 32) labels the plural of class 5 as "6" and gives the prefix form ma-. He also identifies a plural class which he labels "6a" (also ma-), which he says functions "as plural to others [than class 5]" (idem) but gives no other pairings. Presumably 14/6 is one of them.

**"** **Tùkí**

1/2; 3[ùNC]/4[ìNC]; 3[ùNC]/6a[àN]; 5[nì]/6a[àN]; 7/8; 9/10; 11[nù~nò]/13; 14/6[mà]; 15[ù]; 19/mù [XS7]

**A72** **Ewǫndǫ [Yaunde]**

1/2; 1a/2; 3+11Ç/4; 5/6; 7/8; 9/6; 9/10; 11[ò]+3Ç/5; ~~13~~; ~~14~~; ~~15~~; 19; DIM:11+3Ç/5; AUG:7/8 [XS7]

**A74** **Bʉlʉ**

1/2; 3+11Ç/4; 5/6; 7/8; 9/6; 9/10; 11=19+3Ç/5; ~~12~~; ~~13~~; ~~14~~; 14/6; 19=11+3Ç/5; INF:5; DIM:11=19+3Ç/5; AUG:7/8

Guthrie (1971: 33) annotates class 14 with a question mark. Kadima (1969) makes no mention of any 11=19 merger.

**A75** **Fang**

1/2; 3+11Ç/4; 5/6; 7/8; 9=10/6; 9=10/10=9; 11+3Ç; ~~13~~; ~~14~~; INF:5

**A79** **Bìsòò**

1/2; 1a/2; 3[ǹ]/4; 3a[à]/6; 5/6; 7/8; 9/6; 9/10; 11/13[à]; ~~14~~; ~~15~~; 19/13[à] [XS7]

7/8 = claimed by Guthrie, 7/8 = claimed by Kadima, 7/8 = claimed by extra source



The extra source (Guarisma & Paulian 1986: 94) suggests an A70-coding for this language. Thus I have given it the ad hoc code A79.

**A81** **Mvumbo**

1/2; 3/4; 3/6; 5=7/6; 5=7/9; 8/6; 9/6; ~~10~~; ~~11~~; ~~12~~; ~~13~~; ~~14~~; INF:5

**A82** **So**

1/2; 3/4; 5/6; 7/8; 9/10; 14/6

**A83** **Makaa**

1/2; 3/4; 5/6; 5/8; 5/9=10; 7/8; 9=10/6; 9=10/10=9; ~~11~~; ~~13~~; ~~14~~

**A91** **Kwakụm [Bakum]**

1/2; 3/3; 3/4; 3/5; 3/9; 5/4; 5/5; 5/8; 5/9; 7/8; 7/9; 8/9; 9/4; 9/9; ~~10~~; ~~11~~; ~~12~~; ~~13~~; ~~14~~; 19/7; INF:5

**A92** **Pǫl**

1/2; 5/6; 7/8

**"** **Pɔmɔ**

1/2; 5/6; 7/8

**A93** **Kakɔ**

ø/be[animates]; ø/me[inanimates]

The ø-class employs concords **wʉ** or **ɟɛ̨** (Guthrie 1971: 34). Guthrie's description does not make it clear whether there is an animate distinction in the use. Possibly there is.

**B11** **Myɛnɛ**

1=3=11=14=15[o]/2; 1=3=11=14=15[o]/4; 1=3=11=14=15[o]/6; 1=3=11=14=15[o]/10=19[ø~i~si]; 1a/2a; 5/6; 7/8=9[ø]; 9=8[ø]/10=19[ø~i~si]; 10=19[ø~i~si] [XS91]

The extra source (Jacquot 1983: 38+9+42) claims a full merger of classes 1, 3, 11 and 14. (Note that I have chosen not to repeat all duplicate class pairings.) Kadima (1969: 120 et passim), on the other hand, claims the multiple merger 5=11=14=15, which I have not added to the line above. Judging by the information in the extra source, there seems to be no support for the involvement of class 5 in any multiple merger; thus I have chosen to ignore that part of Kadima's claim. Class 15 is possibly likely to be involved, since nouns listed by the extra source (Jacquot 1983: 56) for pairing 14=1=3=11/6 include typical ku-class nouns: **òróyì/àróyì** 'oreille' (Fr.), **óɣɔ̀/áɣɔ̀** 'bras' (Fr.), **òɣɔ́lɔ̀/àɣɔ́lɔ̀** 'jambe' (Fr.), **òɣwánà/àɣwánà** 'bouche' (Fr.). Possibly the **-ɣ-** in some of these is a reflex of a former class 15 prefix?

The use of singular class 10 seems to be attested for deverbal nouns only, as in **íkàmbà** 'procès de parler' (Fr.), which is derived from the verb **kámbà** 'parler' (Fr.) (idem: 45+57).

**"** **Mpǫngwę**

1/2; 3/4; 5/6; 7/8[ø]; 9[N]/10[siN]; 9a[ø]/10a[ø]; 11/6; 11/19[si]; ~~12~~; ~~13~~; ~~14~~; 15; INF:15 [XS1]

7/8 = claimed by Guthrie, 7/8 = claimed by Kadima, 7/8 = claimed by extra source

" **Galwa**

1/2; 3/4; 5/6; 7/8; 9/10[iN]; 19[i]

**B21 Sɛki [Sɛkiyani]**

1/2; 3/4; 5/6; 5/10=9; 7/8; 9=10/6; 11; 13[ci]; 14/6; 19

" **Sɛki**

1/2[bo]; 1/4; 1a/2a[ba]; 3/4; 5[di]/6; 5[di]/10[ø]; 5a[ø]/6; 7/6; 7/8; 9[ø]/6; 9[ø]/10[ø]; 11/6; 11/10[ø]; 14[u]/6 -> 15+14C/6?; 14a[ø]/6; 19[ßi]/13[tsi] [XS91]

The extra source (Jacquot 1983: 194) exemplifies pairing 14/6 with **ùsú/màsú** 'front' (Fr.), **ùkòlú/màkòlú** 'jambe' (Fr.), and **úŋòmbù/máŋòmbù** 'crocodile' (Fr.). The pairing might better be labelled "15/6" instead.

Guthrie's (1971: 34; see also preceding entry) claim of a 9=10 merger is not supported by the extra source, who gives identical prefixes (zero-morpheme) for both classes but slightly different concords (Jacquot 1983: 156).

**B22a Western, Kɛlɛ**

1/2; 3/4[mi~miN]; 5/6; 7[ø]/8; 8/4[mi~miN]; 8/11[ra]; 9=10/6; 9=10[N]/9=10[N]; 11[ra]/6; 11[ra]/10=9[N]; ~~12~~; ~~14~~; 15; 19/4[mi~miN]; 19/13[la~lw]; INF:15; DIM:19/13 [XS64]

Guthrie's (1971: 34) claimed pairings with singular class 8 seem not to be supported by the extra source used below (see next entry). Unfortunately, Guthrie gives no prefix form for class 8. Guthrie's rejection of class 14 is likewise not supported (see below). Possibly Guthrie (1971) and the extra source below (Jacquot 1983) deal with different dialects. To be on the safe side, I have separated their data in individual entries.

" **Kɛlɛ**

1/2; 1a/2; 3/4; 3/6; 5/6; 7[a]/4; 7[a]/8[be]; 9/6; 9/10; 11[ə]/6; 11[ə]/10; 14[u]/6; 14a[ø]/6 -> 15+14C/6?; 19/8[be]; 19[i~yi]/13[ra]; INF:14[u] [XS91]

The extra source (Jacquot 1983: 203) exemplifies what is labelled "14a" here with **búsè/màbúsè** 'front' (Fr.) and "14" with **ùsáádyè/màsáádyè** 'petitesse' (Fr.). The latter class contains all the infinitives and is likely to be the same as that which Guthrie (1971: 34) labels "15" (see preceding entry). A u-prefix is a common infinitive prefix in neighbouring languages, and it is consistently analysed as that of class 14 by Jacquot (1983). The abstract noun **ùsáádyè** would support this. On the other hand, Guthrie's claimed sound law *k > ø lends support for analysing it as that of class 15 instead.

There is no support in the extra source for Guthrie's claimed pairings 8/4 and 8/11. The same goes for Guthrie's claim of the non-occurrence of class 14. Neither is there any support for Guthrie's claim of a 19/4 pairing; instead the extra source gives the pairing 19/13. However, Guthrie's claim of a 9=10 merger could be true, but the concords given by the extra source (Jacquot 1983: 158) are too fragmentary for saying anything conclusive.

Guthrie (1971: 34) gives the prefix forms **ra-** and **la~lẅ-** for classes 11 and 13 respectively (see preceding entry), while Jacquot (1983: 158)





gives **ða-** and **ɾa-** respectively.

With the above in mind, it seems likely that Guthrie (1971: 34) and the extra source are describing different dialects.

**B22b Ngɔm**

1/2; 3/4; 3/6; 5/6; 7/8; 9=10/6; 11/6; 11/10=9; ~~12~~; 14/6; 15; 19/4; 19/13; INF:15

Guthrie's (1971: 34) claim of a 9=10 merger is partly contradicted by the extra source used below.

" **Northern Ngɔm [Ùngɔ́m]**

1/2; 1a/2; 3/4; 3/6; 5/6; 7/8; 9/6; 11[la]/6; 11[la]/10; 14[u]; 14a[ø]/6 -> 15+14C/6?; 19/6; 19/13[l~la] [XS91]

Possibly pairing 14a/6 is better labelled "15/6" instead. The extra source (Jacquot 1983: 210) exemplifies it with **búsúè/màbúsúè** 'front' (Fr.).

The extra source gives slightly different concords for class 9 and 10 (idem: 160). Thus there is no support for Guthrie's claim of a 9=10 merger (see preceding entry).

" **Southern Ngɔm**

1/2; 1a/2; 3/4; 3/6; 5/6; 7/4; 7/8; 9/6; 11[ya]/6; 11[ya]/10; 14[wu]/6; 14a[ø]/6 -> 15+14C?/6?; 19/13[la]; INF:14[u] [XS91]

As for the putative re-labelling of 14a/6 as "15/6", see above entry for Northern Ngom (B22b).

Guthrie's (1971: 34) claim of a 9=10 merger (see above) could be true, but the information provided by the extra source is too fragmentary to say anything conclusive.

**B22c Pußi [Íßùßì; Bụbj]**

1/2; 1a/2a; 3/4; 5[e~i]/6; 7/8; 9/10[ø]; 10[di]/6; 11/6; 11/10[ø~di]; 14; 19 [XS91]

**B23 Mbangwɛ̄**

1/2; 1a/2; 3/2; 3/4; 3/6; 5/6; 7/8; 9/6; 11[ya]/6; 11[ya]/10; 14[u]; INF:14[u] [XS91]

**B24 Wumvu [Wumbvu]**

1/2; 1a/2a; 3/4; 5[dzi]/4; 5[dzi]/6; 7/8; 9/6; 11[le]/6; 11[le]/10; ~~13~~; 14[vu]/6; 14a[ø]/6 -> 15+14C?/6?; ~~19~~; INF:14[wu] [XS91]

As for the putative re-labelling of 14a/6 as "15/6", see previous B20 languages.

**B25 Kota [Íkótà]**

1/2; 3/2; 3/4; 5[i]/6; 5[i]/10=9; 7[e]/4; 7[e]/8; 9=10/10=9; 11[le]; ~~13~~; 14/6; ~~19~~; INF:7[e]

" **Kota**

1/2; 1a/2; 3/4; 5[i]/6; 7[e]/8; 9[ø]/6; 11[o]/6; 11[o]/10[ø]; 14/6 ->

14=15/6?; 19[i~ø]/14; INF:5[i] [XS91]

The extra source (Jacquot 1983) makes no mention of pairings 3/2, 5/4 and 7/4, as claimed by Guthrie (1971: 35; see also preceding entry). Nor is there any mention of merger 9=10. The data presented do not, however, contradict any of Guthrie's claimed information. For instance, classes 9, 10 and 19 seem to have identical concords (idem: 181).

Guthrie's claim of a non-existing class 19 is not supported by the extra source (Jacquot 1983: 150). Neither does the extra source support the prefix form **lẹ-** for class 11. The form given is **ɔ-** (idem: 141).

Pairing 14/6 is exemplified with **bɔ̀hɔ́/màhɔ́** 'front' (Fr.) and could possibly be better labelled "14=15/6"; see also other B20 languages.

" **Sake [Ásákè; Lisake]**

1/2; 1a/2a; 3/2a; 3/4; 3/6; 5/4; 5/6; 7/8; 9/6; 11[le]/6; 11[le]/10; 14; 14a[ø]/6 -> 15+14C/6?; 19/13[le]; INF:14[bu] [XS91]

The extra source (Jacquot 1983) gives conflicting information about class 13. There is no mention of it in the summary table (idem: 177), but it is listed as a plural class in the main text (idem: 258+262). The only exemplified noun is **lènɔ̀nú**, plural of **nɔ̀nú** 'oiseau' (Fr.), with a prefix **lé-**, which seems identical to **le~le-** of class 11.

Classes 7 and 19 seem to be identical (idem: 149).

Also, pairing 14a/6 is possibly better labelled "15/6"; see also other B20 languages.

" **Mahɔngwe**

1/2; 1a/2; 3/4; 5/6; 7/6; 7/8; 9/6; 11[le]/6; 14; 14a[ø]/2; 19[i]/6; 19[i]/10; INF:19[i] [XS91]

Classes 7 and 9 seem to have identical concords, as do classes 11 and 19, the latter based on **li** (see Jacquot 1983: 174).

" **Northern Ndasa**

1/2; 1a/2; 3/4; 5[yi~ye]/6; 7/8; 9/6; 11[le]/6; 11[le]/10; 11a[ø]/6; 14; 14a[ø]/6 -> 15+14C?/6?; INF:14[ɔ] [XS91]

The extra source (Jacquot 1983: 239) exemplifies pairing 14a/6 with **bùsú/màbùsú** 'front' (Fr.), which indicates that it might possibly be better labelled 15/6 instead; see also other B20 languages.

" **Southern Ndasa**

1/2; 1a/2; 3/4; 5[yi~i]/6; 7/8; 9/6; 11[le]/6; 11[le]/10; 13[la]/6; 14; 19[li]/8; INF:14[ɔ] [XS91]

The extra source (Jacquot 1983: 172) claims that the prefix forms **la-** and **li-** are those of classes 13 and 19 respectively. This is contested by Grégoire (1994: 32; not listed as extra source), who says that "this analysis seems to be misleading since the reflex *t > l [referring to class 13] is not observed in the language and since a change *p > l [class 19] is quite impossible."

**B29 Siɣu**

1/2; 1a/2; 3/4; 5[li]/4; 5[li]/6; 7/6; 7/8; 9/6; 11[li~le]/4; 11[li~le]/6; 11[li~le]/8; 11[li~le]/10; 14/6 [XS91]

Guthrie (1971) has no coding for this language. I have given it the ad hoc code B29 since the extra source (Jacquot 1983) discusses it together with other B20 languages.





**B31 Tsɔgɔ [Yétsɔ́gɔ̀]**

1/2; 3/4; 5=8/6; 7/8=5; 8=5/6; 9/10[N]; 11/10[N]; 11/10a[dil]; ~~12~~; ~~14~~; 16; 17; 19/13; INF:5; +DIM:19/13; AUG:7/8

" **Tsɔgɔ**

1/2; 3/4; 5[e]/4; 7/8[e]; 9/10; 10; 11/6; 11/10[ø]; 11/10a[di]; 19[vi]/13[to]; INF:8[e] [XS91]

The extra source (Jacquot 1983: 320) gives identical prefixes for classes 5 and 8, but different series of concords.

" **Pinji [Yàpínjì]**

1/2; 3/4; 3a/4; 5/6; 7/8[e]; 7/10a[di]; 9[ø]/6; 9[ø]/10[ø]; 9[ø]/10a[di]; 9a/10[ø]; 11[no]/10[ø]; 11/10a[di]; 19/8; 19/10a[di]; 19/13[to] [XS91]

Concords for classes 9a, 10 and 10a, based on **di**, seem to be identical (see Jacquot 1983: 322).

**B41 Sira [Esira]**

There are basically no noun class data at all for this language, except that Johnston (1922: 10) gives the prefix **e-** (possibly class 5) together with the language name.

**B42 Sangu**

1/2; 3/4; 5=11/2[baN]; 5=11/6; 7/8; 9/2[baN]; 9/10; 11=5/2[baN]; 11=5/6; 14/6 [XS57]

**B43 Punu**

1/2; 3/4; 5/6; 7/8; 9/2[baN]; 9/6[maN]; ~~9/10~~; 9/10[N]; 11/2[baN]; 11/6[maN]; 11/10[N]; ~~12~~; ~~13~~; 14/6; 15; 16; 17; 18; INF:15 [XS57]

**B44 Lumbu [Kilumbω]**

1/2; 3/4; 5/6; 7/8; 9/10; 11/10; 14/6 [XS57]

**B51 Dɥma [Liduma]**

1/2; 3/4; 5=11/6; 7/8; 9/10; 11=5; 14/6

**B52 Ndjabi [Nzebi]**

1/2; 3/4; 5=11/6; 5=11/9=10; 7/8; 9=10/6; ~~11~~; 11=5/6; 11=5/10=9; ~~12~~; ~~13~~; 14/6; 15; 16; 17; INF:15 [XS78]

**B53 Tsaangi**

1/2; 3/4; 5[ø~dil=11/6; 7/8; 9/10; 11[li~dil=5; 14/6; 15/4; INF:15

**B61 Mbętę**

1/2=6; 3=14=15/2=6; 3=14=15/4=8; 5/6=2; 7/6=2; 7/8=4; 9=10/10=9; ~~12~~; ~~13~~;

~~14~~; ~~14~~=15=3/4=8; 14=15=3/2=6; INF:3=14=15

Guthrie (1971: 36) claims that "Cl. 3 (< *15)" and "Cl. 3,14=", with the latter notation indicating identical classes. Thus I take it that classes 3, 14 and 15 have all merged.

### B62 Mbaama [Mbamba; Limbamba]

There are basically no noun class data at all for this language, except that Johnston (1922: 9) gives the prefix li- of class 5 together with the language name.

### (B60) Ngwi

1/2; 3=14[o]/4+7=11C=9C; 3=14[o]/10+8C; 5/6; 7=11[e]+4C=9C/8+10C; 9+4C=7=11C/10+8C; 11=7[e]+4C=9C; 14=3[o]/6; 14=3[o]/10+8C

This language has not been plotted into any maps; but it is discussed in the main text. In order to clarify the mergers listed above: Kadima (1969: 111ff) claims the following mergers and near-mergers: 3=14, 4C=7C=9C, 7=11 and 8C=10C. The only pairing explicitly mentioned is that of 3(=14)/10 (idem: 89).

### B71 Tege-Kalɨ

1/2; 3/4=8; 5/6; 7/8=4; 9=10/6; 9=10/10=9; 11[le]; ~~13~~; ~~14~~; 15; INF:15

### B72 Ngungwel

1/2; 3/4; 5/6; 7/6; 7/8; 9=10/10=9; 11[le~el; ~~12~~; ~~13~~; 14/6; 15; INF:15

### B73 Tsaayi

1/2; 3/4; 5/6; 7/8; 9/10; 14/6; INF:7

### " Yaa

1/2; 3/4; 5/6; 7/8; 9/10; 14/6; 16; 17; 18; INF:u

### B74 Ndzindziu

1=3/2; 3=1/4; 5/6; 7/8; 9/6; 11[li]/10; 14/6; 15/4; INF:14

### B75 Tio [Bali]

1=3/2; 3=1/4; 5=11/6; 7/8; 9=10/6; ~~9/10~~; 11[li]=5; ~~13~~; 14/6; INF:14

### B77 Kukwa

1/2; 3/4; 5/6; 7/8; 9/6; 11[li]/10; 14/6; INF:7

### " Ifumu [Fumu]

1=3/2; 1=3/4; 1a[ø]/2; 3=1/2; 3=1/4; 5/4; 5/6; 5/9=10[N]; 7/8; 9=10[N]/6; 14[bu]/2; 14[bu]/6; 15[ku]/4; 19/8; INF:u; -DIM:19/8 [XS82]

The extra source (Calloc'h 1911) uses no BM numbers; thus they are my interpretations.

Would-be classes 1 and 3 are identical, prefix and concords, at least as exemplified (idem: 17f). The same for two nasal classes, one singular of class 6 and one plural of class 5, which I have interpreted as 9=10. Pairings 5/4, 14/2 and 15/4 are given as exceptional.





### B78 Wuumu [Ewumu; Kiwumbu; Kivumbu?; Luwumbu?]

1/2; 3/4; 5/6; 7/8; 9/10; 11[li]/6; 11[le]/6a[maN]; 11[le]/10; 14/6; 15; INF:15

The language names "Kivumbu" and "Luwumbu" derive from Johnston (1922: 7), who seems to equate them with Vili (H12). Possibly they are variant names of Wuumu instead.

### B81 Tjęnę

1/2; 3/4; 5/6; 7/8; 9/10; 11[le]/10; ~~12~~; ~~13~~; 14/6; 15; INF:15

### B82 Boma [Kibɷma]

1/2; 3/4; 5[il/6; 7/8; 9/10; 11[le]; ~~11~~; ~~13~~; 14/6; 15; 16; 17; 18; INF:15; DIM:7/8

I do not know what to make of Kadima's (1969: 84) claimed non-existence of class 11. I have decided to go with Guthrie's analysis, since it seems to conform to neighbouring languages; and he gives an actual prefix form.

### B83 Mfinu

1/2; 3/4; 5/6; 7/8; 9/6; 11[le]/10; ~~12~~; ~~13~~; 14/6; 15; INF:15

### B85 Yans

1/2; 3/4; 5=11/6; 7/8; 9/10; 11=5; 14/6

### " East Yans

1/2; 3/4; 5/6; 7/8; 9/10; 11[li]/4; 14/6; 15; INF:15

### B86 Dzjng

1/2; 3/4; 5/6; 7/8; 9/10; ~~13~~; 14/6

### C11 Ngǫndj

1/2; 3/4; 5/6; 7/8; 9/6; ~~10~~; ~~11~~; ~~12~~; ~~13~~; 14/6; INF:7

### C12 Pandę

ø/2[ba] [XS89]

Says the extra source: "Only in rare cases have independent prefixes survived ... In the majority of instances the plural is formed by prefixing ɓa- to the singular form" (Richardson 1957: 35).

### " Bǫgɔngɔ

1/2; INF:[suffix-i]

"Concords in classes 1/2 only" (Guthrie 1971: 39). Infinitives are marked only with a distinctive suffix.

### C13a Mbatj

ø/2[ba]; INF:[suffix-ele] [XS89]

Says the extra source: "The class system has to all intents and purposes ceased to exist" (Richardson 1957: 39). ɓa- is prefixed to form any plural. Infinitives take no prefix but a distinctive suffix -ɛ́lɛ̀ only (idem: 41).

### C13b Ngandǫ-Kǫta [ɗjngandǫ; ɗjkǫta]

1/2; 1a[N]/10[N]; 3/4; 3/10[N]; 5/4; 5/6; 7/8[6i]; 7/10[N]; 9/6; ~~9/10~~; 14/6; INF:14[+suffix-i] [XS89]

According to the extra source (Richardson 1957: 37), there is no recorded use of pairing 9/10.

### C21 Iboko [Mbǫkǫ]

1/2; 3/4; 5/6; 7/8; 9/10; ~~13~~; 14/6

### C22 Akwa

1/2=6; 3/4=8; 5/6=2; 7+9=10C/6=2; 7+9=10C/4=8; 8; 8=4; 9=10+7C/6=2; 11/10=9+7C; ~~12~~; ~~13~~; 14/6=2; INF:5

Guthrie's (1971: 39) claim of a non-existing class 8, I take as an implicit verification of Kadima's (1969: 112) claim of a 4=8 merger.

### C32 Bǫbangj [Lωbωbañgi]

1/2; 1/4; 3/4; 5/4; 5/6; 7/2; 7/8; 9/6; 9/10; 11/4; 11/6; 11/10; ~~12~~; ~~13~~; 14/6; ~~15~~; INF:14[+suffix-i]

### " Bǫbangj

1[mo]/2[ba]; 1a[ø~N]+7C=9C/2[ba]; 3[mo]/4[mi]; 5[li~z]/2[ba]; 5[li~z]/4[mi]; 5[li~z]/6[ma]; 7[e]+1aC=9C/2[ba]; 7[e]+1aC=9C/8[bi]; 9[N]+1aC=7C/6[ma]; 9[N]+1aC=7C/10[N]; 11[lo]/4[mi]; 11[lo]/6[ma]; 11[lo]/10[N]; 14[bo]/6[ma]; INF:14[+suffix-i] [XS23]

The extra source (Whitehead 1899) employs no BM numbers; thus they are my interpretations.

Two human nouns are given together with 3/4 nouns (idem: 15), which could be the source for Kadima's claim of a 1/4 pairing, since prefixes for classes 1 and 3 are identical. However, they seem to take 3/4 concords and should therefore be retained as 3/4 nouns.

Moreover, concords for classes 1a, 7 and 9 are identical (idem: 20 et passim). The 7C=9C part is supported by Kadima (1969: 117).

### C34 Sakata

1+9C/2; 3/4; 5+11C/6; 5/8; 7/8; 9[N]+1C/10[N]; 11+5C/6; 11+5C/10[N]; ~~13~~; 14/6; 15 [XS53]

### C35a Ntǫmba

1/2; 3/4; 5/6; 7/8; 9/10; 14/6; INF:9[+suffix-il]

### " Northern Ntomba

1/2; 3/4; 5/6; 7/8; 9/10; 11/6; ~~13~~; ~~14~~; DIM:'child'

Diminutives are constructed with the word **ngan'o** 'child' (Kadima 1969: 179).

### " Southern Ntomba

1/2=6; 3=14/4; 5+10C=19C/6=2; 5+10C=19C/10+5C=19C; 7+9C/8; 9+7C/10+5C=19C; 11/2=6; ~~13~~; 14=3; 19+5C=10C

7/8 = claimed by Guthrie, 7/8 = claimed by Kadima, 7/8 = claimed by extra source



### C35b Bǫlja

1/2=6; 3=14/4; 3=14/6=2; 5+10C/6=2; 7+9C/8; 9+7C/10+5C; 11/2=6; 11/4; ~~13~~; ~~14~~; 14=3/4; 14=3/6=2; INF:5+10C; DIM:'child'

Diminutives are constructed with the word **bon'o** 'child' (Kadima 1969: 179).

### C36 Lǫsengɔ cluster

The Losengo cluster comprises the following dialects/languages:

### " Ɓotɔ

1/2; 3/4; 5/6; 7/8=19; 8=19/13; 9/10; 14/6; 15; 19=8/13; INF:15

### " Mpesa

1/2; 3/4; 5/6; 7/8; 9/10; 14/6; INF:14[+suffix-il]

### " Mbụdza

1/2; 3/4; 5/6; 7/8; 9/10; 14/6; INF:9[+suffix-il]

### " Lingala [Ngala; Mangala]

1=3/2; 1=3/4; 1=3/10=9; 1a[ø]/2; 3=1/2; 3=1/4; 3=1/10=9; 5/6; 7/8; 7/10=9; 9=10/2; 9=10/10=9; 11/6; 11/10=9; 14/6; 15; INF:15 [XS50]

The concord system is very simple. Adjectives take **mɔ-** in singular and **mi-** in plural (Guthrie & Carrington 1988: 20). In third person, there are only four free subject/object pronouns and only four subject concords (no object concords): one singular/plural pair is used for animates, and another one for things (idem: 25+41).

### " Bǫlɔkj

1/2; 3/4; 5/6; 7/8; 9/10; 11; 14/6; INF:11

### " Kangana [Likañgaña]

There are basically no noun class data at all for this language, except that Johnston (1922: 9) gives the prefix **li-** of class 5 together with the language name.

### C37 Bụja

1/2; 1/4; 3/4; 3/10; 5/6; 7+9C/8; 9+7C/10; 11/6; ~~13~~; 14/6; DIM:'child'

Diminutives are formed with a word for 'child': **ma(na)o** in singular and **wana (wa)** in plural (Kadima 1969: 179).

### C39 Mabale

1/2; 3/4; 5/6; 7+9C/8; 9+7C/10; ~~13~~; 14/6

Guthrie (1971) provides no code for this language. I have given it the ad hoc code C39 since it is classified in the Bangi-Ntumba group by Grimes (1996: 444), which is labelled "C40" by the latter source. Guthrie's original classification gives it as "C30".

### (C30) Budya

1+9C/2; 3/4; 5/6; 7/8; 9+1C/10; 11/6; 14/6

7/8 = claimed by Guthrie, 7/8 = claimed by Kadima, 7/8 = claimed by extra source

This language has not been plotted into any maps. The data are discussed in the main text.

**C41 Ngɔmbɛ [Liñgombe]**

1/2; 3/4; 3/10; 5/6; 5[li]/10[ø]; 7+9C/6; 7+9C/8[bi]; 7+9C/10[ø]; 7+9C/11; 8[bi]/11; 9+7C/10; 11[obsolescent]; ~~12~~; ~~13~~; 14/6; INF:9+7C; DIM:mo/ba

Diminutives are formed with the prefixes **mŏ-/bă-** (Kadima 1969: 179). The prefix of plural class 11 looks like **li-**. Kadima (1969: 90) provides the following examples: **ika** 'chose' (Fr.) with plural **lika**, and **bisa** 'bois de chauffage' (Fr.) with plural **lisa**. However, when he specifically discusses li-like class 11 prefixes, he does not mention Ngombe at all (idem: 68).

**C44 Bǫa**

1/2

All nouns employ concords of classes 1 and 2 only, but there are several noun classes with "skewed prefixes" (Guthrie 1971: 40).

**C45 Angba [Beo; Lebeo]**

1/2; 1a/2; 3/4; 5/6; 7/8; 9+10C/10+9C; ~~13~~; 14/6

**(C40) Northern Binja**

1/2; 3/4+9C; 5+10C/6; 7/8; 9+4C/10+5C; 14/6

**(") Southern Binja**

1/2; 3/4+9C; 5/6; 7/8; 9+4C/6; 9+4C/10; 14/6; AUG:7/8,11

Neither this nor the language listed immediately above have been plotted into any maps. (The data are discussed in the main text where relevant.)

Also, I am somewhat unsure of the exact coding of this language. It seems to belong either to Guthrie's C30 or C40 group. Kadima (1969) gives no clues.

**C51 Mbɛsa**

1/2=6; 3/4; 5/6=2; 7/8; 9/10; 14/6=2; 19

**C52 Soko [Sɔ; Eso; Lωsωkω]**

1/2=6[xal]; 3=14/4; 5/6[xal=2; 7/8; 9/10; ~~12~~; 14=3; 14; 19/6[xal=2; INF:14=3[+suffix-il

**C54 Lǫmbǫ**

1/2=6; 3=14/2=6; 5/6=2; 7+11C/8+10C; 9/10+8C; 11+7C/10+8C; ~~12~~; ~~13~~; ~~14~~; 14=3/6=2; 15; 19/13; INF:15

**C55 Lokele**

1/2=6; 3=14/4+8C=10C; 5/6=2; 7+9C/8+4C=10C; 9+7C/10+4C=8C; 14=3; 19

**C56 Fɔma [Lifωma; Lωkesu]**

There are basically no noun class data at all for this language, except

7/8 = claimed by Guthrie, 7/8 = claimed by Kadima, 7/8 = claimed by extra source



that Johnston (1922: 9) gives the prefixes **li-** of class 5 and **lω-** of class 11 together with the language names, that is, **lifωma** and **lωkesu**.

**C61a (North-eastern) Mɔngɔ [Lomɔngɔ]**

1/2=6; 3=14/4; 5/6=2; 7+9C/8[li]; 9+7C/10+19C; 11; ~~12~~; 14=3/6=2; 19+10C/6=2; INF:9; AUG:7+9C/8 [XS107]

**C61b Nkʉndǫ [Lonkundo]**

1[bo]/2[ba]; 3[bo]/4[be]; 5/6[ba]; 7[e]/8[bi]; 9/10; 11/10; 15; 19/13; INF:15; +DIM:19/13 [XS80]

The extra source (Welmers 1973) gives only class prefixes, no concords. Thus a 2=6 merger is possible; see preceding entry.

**(C60) Konda [Lokonda]**

1/2=6; 3=14/4; 5+10C=19C/6=2; 7+9C/8; 9+7C/10+5C=19C; 14=3/6; 19+5C=10C

This language has not been plotted into any maps. The data are discussed in the main text.

**C71 Tetɛla**

1/2=6; 3/4; 5[CC~d]/6=2; 5a[di]/6=2; 7+9C/5a[di]; 7+9C/6=2; 7+9C/8[ø]; 9+7C/10[N]; 11/4; 11/6=2; 11/10[N]; ~~12~~; ~~14~~; 19/13; INF:9+7C

Kadima (1969: 34+90) claims a 5=8 merger, which is contradicted by Guthrie (1971: 41). Possibly Kadima has interpreted what Guthrie labels "5a" as that of a 5=8 merger (see Kadima 1969: 115). Possibly there is a concord merger. I have, in any case, chosen to ignore it, since Guthrie gives different prefixes for classes 5, 5a and 8. ("CC" stands for doubling of stem-initial consonant.)

**C73 Nkutšu**

1[u]/2[wa]; 3[u]/4[i~wi]; 5[ø~i~di]/6[wa~ma]; 7[e~i]/8[di]; 7[i]/10[N]; 9[N]/10[N]; 11[lu]/10[N]; 19[ø~i]/13[tu]; o/e; INF:9; +DIM:19/13 [XS72]

The extra source (Van Hove 1911) employs no BM numbers; thus they are my interpretations. Prefix pairing **o-/e-** (with variant forms **w-/we-**) I cannot interpret. However, it seems likely to be a phonologically determined variation of pairing 3/4.

Classes 5 and 8 are largely identical, and differ with respect to one form in their pronominal concords only (idem: 392).

Putative pairing 7/10 is given as exceptional and exemplified with a single noun only, **ilungi/ndungi** 'un visage' (Fr.) (idem: 387).

**C76 Ombɔ**

1/2=6; 3=14/4; 5/6=2; 7/8; 9/10; 11/4; 14=3; 19

**C83 Bushong [Bʉshɔɔng; Kuba]**

1/2; 3/4; 5=7/6; 7=5/8; 9/6; 9/10; 11/4; 11/10; 12/13; 14/6; 15; INF:15; +DIM:12/13

**" Bushong**

1/2; 1a/2; 1a/10; 3/4; 5/6; 7/6; 7/8; 9/6; 9/10; 11/4; 11/10; 12/13; 14/6; 15[a~y~w]; INF:15[a~y~w]; +DIM:12/13 [XS47]

7/8 = claimed by Guthrie, 7/8 = claimed by Kadima, 7/8 = claimed by extra source

The extra source (Vansina 1959) gives no support for a 5=7 merger as claimed by Guthrie (1971: 41).

### C84 Lɛlɛ [ʂilele]

There are basically no noun class data at all for this language, except that Johnston (1922: 8) gives the prefix **ʂi-** of class 7 together with the language name.

### D11 Mbɔlɛ

1/2; 3/4; 5/6; 7/8; 9/10; 11/10; ~~12~~; ~~14~~; 15; 19/13; INF:15

### D12 Lɛngɔla

1/2; 3/4; 5/6; 7/8; 9/10; 14/6; 15; 19; INF:5 [XS105]

### D14 Enya [Genya]

1/2; 3/4; 5/6; 7/8; 9/10; 11/10; 12/13; 14/6; 15; INF:15

### D21 Balj

1/2; 3/4; 3/15; 5/6; 7/8; ~~9~~; ~~10~~; ~~11~~; ~~12~~; ~~13~~; 14/6; 15/6; INF:15

### D22 Amba [Hyanzi; Kɪhyânzɔ̀]

1[N]/2[bl]; 7?; INF:ø [XS90]

No other noun classes or concords occur, but "many items begin with prefix-like elements" (Guthrie 1971: 42).

The extra source (Tucker & Bryan 1957) says that "[o]nly traces of a Class system are to be found" (idem: 69). The extra source also gives a **kɪ**-prefix together with the language name **kɪhyânzɔ̀** (idem).

### D23 Kọmọ

No noun classes at all according to Guthrie (1971: 42).

### D25 Lega [Kelega]

1/2; 3/4+9C; 5/6; 7/8; 9+4C/6; 9+4C/10; 11/10; 12/13; 14/6; 15/6; 16; 17; 18; 19[sil]/13; INF:15; -DIM:19[sil]/13; AUG:7/8 [XS3]

The extra source (Botne & Salama-Gray 1994) makes no mention of class 19.

### D27 Bangubangu

1/2; 3/4+9=10C; 5/6; 7/8; 9=10+4C/10=9+4C; 11/6; 11/10=9+4C; 12/13; 14/6; 15/6; INF:15

### D28 Eastern Hɔlɔhɔlɔ

1/2; 3/4; 5/6; 7/8; 9=10/6; 9=10/10=9; 11/6; 11/10=9; 12/13; 14/6; 15/6; INF:15; +DIM:12/13; AUG:7/8,11

### D32 Bjra [Kiviira; Lubira; Sese; Lusese; Lubusese]

There are basically no noun class data at all for this language, except that Johnston (1922: 8) gives the prefix **lu-** of class 11 together with the language name.

7/8 = claimed by Guthrie, *7/8* = claimed by Kadima, 7/8 = claimed by extra source



### D33 Nyali [Lj́nyàlì]

1/2; 3/2; 3/4; 3/6; 5=7[il/5a[lil; 7=5[il/8[dil; ~~10~~; 11/3; 11/9; ~~12~~; ~~13~~; ~~14~~; INF:5=7[il

The class Guthrie (1971: 43) labels "5a" seems somewhat odd. There seems to be nothing corresponding in Vanuma (see next entry).

### " Vanuma [Lj́vanʊmá]

1/2; 1/6; 3/4; 3/6; 5[ri~li]/6; ~~7~~; 9[i]/8[di]; 11/6; 11/10[N]; 14[6ú]/6; 14a[ú]/6 -> 15/6 [XS90]

The extra source (Tucker & Bryan 1957: 11) lists the following nouns as belonging to class 14a: **ʊtʃ́** 'moon' and **ʊʊ́** 'spear'. Since the former is a typical ku-class nouns, and since the claimed prefix **ú-** seems likely to be a reflex of PB class 15 ***ku**, following Guthrie's claimed sound law ***k** > **ø** (see Guthrie 1971: 43), I take it that the claimed class 14a nouns are in fact class 15 nouns. Thus class 14a is better labelled "15".

As for class 9, Guthrie (1971: 43) seems to have chosen to interpret a similar prefix in Nyali (see preceding entry) as that of a 5=7 merger, although a 7=9 merger seems more likely here.

### " Huku [Lihuku]

There are basically no noun class data at all for this language, except that Johnston (1922: 8) gives the prefix **li-** of class 5 together with the language name.

### D41 Kɔnzɔ [tʊ̀kɔ́nzɔ́]

1/2; 3/4; 5/6; 7/8[eßi]; 7[eci]/10[esya]; 9[e]/10[esya]; 11/10[esya]; 12/13; 12/14; 14; 15/6; 16; 17; 18; eyi -> 23?; eí/esí; INF:5; DIM:12/14; AUG:5/6,7/8,11 [XS90]

The extra source (Tucker & Bryan 1957: 15) lists an **eyi**-prefix as a locative prefix.

The unlabelled pairing **ej/esj** (or **e/es**?) is noted under the heading "Other classes". It is exemplified with **ejsʊ́cj/esjsʊ́cj** 'fly/flies' (idem). Possibly it is a subset of the 9/10 nouns.

### D42 Ndandj [Nande; Olunande]

1/2; 3/4; 5/6; 7/8; 9/10[esyoNl; 11/6; 11/10[esyoNl; 11/10a[esil; 11/14; 12/13; 12/14; 12/19; 14/6; ~~19/13~~; 19/13; INF:5; +DIM:12/13,19/13; DIM:12/14,12/19; AUG:5/6,7/8,11

Kadima (1969: 88) rejects the existence of pairing 19/13, while Guthrie (1971: 43) claims it exists.

### D51 Hunde [Kihuunde; Kobi; Orukó: ʊj́]

1/2; 3/4; 5/6; 7/8[eßi]; 9/6; 9/10[esyo]; 11/6; 11/10[esyo]; 12/13; 14; 15/6; 19; INF:5; AUG:7/8 [XS90]

The extra source (Tucker & Bryan 1957) makes no mention of pairings 9/6 and 11/6, nor is there any mention of class 19.

### D53 Tembo [Kitembo; Shi]

1/2; 3/4; 5/6; 7/8; 9/10; 13; 14/6; 15; 19; INF:5,15 [XS105]

7/8 = claimed by Guthrie, *7/8* = claimed by Kadima, 7/8 = claimed by extra source

**D54 Bembe**

1/2; 3/4; 3/10; 5/6; 7/8; 9/6; 11/4; 11/10; 12/6; 12/13; 14/4; 14/6; 15/6; 19[hi]; INF:5,15?; +DIM:12/13 [XS105]

Guthrie (1971: 43) makes no mention of class 19 at all.
According to the extra source (Forges 1983: 260) Bembe employs two infinitive classes, namely, 5 and 15. Somewhat disturbing, however, is the fact that he codes the language he calls "Bembe" as "D21". Thus I am unsure if it really refers to what appears here as D54.

**D55 Buyu**

1/2; 3/4+9C; 5/6; 7/8; 9+4C/6; 9+4C/10; 11/6; 12/13; 14/6; 15; 19; INF:15

**D61 Kinyarwanda [Ruanda; Runyarwanda]**

1/2; 3/4+9C; 5/6; 7/8; 9+4C/10; 11/10; 11/14; 12/13; 14; 15/6; 16; 17; 18; i -> 23?; INF:15; +DIM:12/13; +AUG:7/8,11 [XS48]

**D62 Kirundi**

1/2; 3/4; 5/6; 7/8; 9/6; 9/10; 11/10; 12/13; 14/6; 15/6; INF:15; +DIM:12/13; AUG:7/8

**" Kirundi**

1/2; 3/4+9C; 5/6; 7/8; 9+4C/6; 9+4C/10; 11/10; 12/13; 14; 15; 16?; INF:15; +DIM:12/13; +AUG:7/8 [XS45]

**D63 Fuliiro [Ikifuliiro]**

1/2; 3/4; 5/6; 7/8; 9/10; 14/6; 15; 19; INF:15

**D64 Sinja [Lusinja]**

There are basically no noun class data at all for this language, except that Johnston (1922: 2) gives the prefix **lu-** of class 11 together with the language name.

**D66 Ha [Kiha]**

1/2; 3/4; 5/6; 7/8; 9/6; 9/10; 11/6; 14/6; 15; INF:15; AUG:7/8

**E11 Nyoro [Orúnyóró; Gungu; Rugungu]**

1/2; 3/4; 5/6; 7/8; 9/10; 12/13; 12/14; 14/6; 15; INF:15; DIM:12/14; AUG:7/8

**E12 Tooro [Orútóóró]**

1/2; 3/4; 5[i~eri]/6; 7/8[eßi]; 9=10/10=9; 11/10=9; 12/14; 13; 14/6; 15/6; 16; 17; 18; 20/22; e -> 23?; INF:15; AUG:20/22 [XS90]

**E13 Nyankore [Hima; ωruhima]**

1/2; 3/4+9C; 5/6; 7/8; 9+4C/6; 9+4C/10; 11/6; 11/10; 11/14; 12/13; 12/14; 14/6; 15=17/6; 16; 17=15; 18; INF:15=17; +DIM:12/13,12/14 [XS5]

The extra source (Taylor 1985: 124) lists the locative classes 15 **ku-**,





16 **ha-** and 17 **mu-**, which are wrongly labelled as such. It should be 16 **ha-**, 17(=15) **ku-**, 18 **mu-**.

**E15 Luganda [Òlùgânda; Ganda]**

1/2; 3/4; 5/6; 7/8; 9/10; 11/10; 12/13; 12/14; 14/6; 15; 20/22; INF:15; +DIM:12/13; DIM:12/14; AUG:7/8,11,20/22

**" Luganda**

1/2; 1a/2a; 1a/8; 1a/10; 1a/14; 3/4; 5/6; 5/22; 7/8; 9/6; 9/10; 11/10; 12/14; 13; 15/6; 16; 17; 18; 20/22; 23; INF:15; +DIM:12/14,7/8; -DIM:13; +AUG:5/6,7/8; -AUG:20/22 [XS21]

The extra source (Cole 1965: 47) lists class 13 as a single class diminutive. However, it signifies concepts like 'a drop of', 'a pinch of'; thus it is not strictly diminutive.
There is no mention of 12/13 as a valid pairing, as claimed by Guthrie (1971: 44; see preceding entry).

**E16 Soga [Olúsògà]**

1/2; 3/4; 5/6; 7/8; 9=10/10=9; 11/10=9; 12/14; 13; 14/6; 15/6; 16; 17; 18; 20/22; ogu/oga -> 20/22; e -> 23?; INF:15; AUG:20/22[ogu/oga] [XS90]

**E21 Nyambo [Ekinyambo; Karagwe; Urukaragwe]**

There are basically no noun class data at all for this language, except that Johnston (1922: 2) gives the prefix **uru-** of class 11 together with the language name **urukaragwe**.

**E22 Haya [Ekihaya; Ziba; Luziba]**

1/2; 3/4; 5/6; 7/8; 9/10; 11; 12/14; ~~13~~; 14/6; 15; INF:15; DIM:12/14; AUG:7/8,11

**E23 Zinza [Ekizinza]**

1/2; 3/4; 5/6; 7/8; 9/10; ~~12~~; ~~13~~; 14/6; 15; INF:15

**E24 Kereße [Kikereße; Urukerebe]**

1/2; 3/4; 5/6; 7/8; 9/10; 12/13; 12/14; 14/6; 15; INF:15; -DIM:12/13; DIM:12/14; AUG:5/6

**E25 Jita [Ecejiita; Kwaya; Kikwaya]**

1/2; 3/4; 5/6; 7/8; 9/10; 12/14; 14/6; 15; INF:15

**E31 Gisu [Ulúgìsú; Dadiri]**

1/2; 3[mu~gumu/4[mi~gimi]; 5/6[ma~gama]; 7/8; 9/10; 12/14; ~~13~~; 14/6[ma]; 15/6[ma~gama]; 17; 18; 20; gu/ga -> 20/22; INF:15; AUG:gu/ga[20/22] [XS90]

The extra source (Tucker & Bryan 1957: 23) also gives the locative prefix 16 **a-** in parentheses, but apparently it is not productive.

**" Kisu**

1/2; 3[kumu/4[kimi]; 5/6[kama]; 7/8; 9/10; 14/6[kama]; 15; INF:15

" **Bukusu [Lubukusu]**

1/2[baba~baa]; 1a/2a[ø~ba]; 3[kumu]/4[kimi]; 3a[ku]/4 -> 20/4; 5/6[kama]; 7/8; 9/10; 11/10; 11/14; 12/8; 14/6[kama]; 15; 16; 17; 18; 24[e] -> 23; INF:15; -DIM:12/8; AUG:3a[ku]/4 [XS86]

The locative class labelled "24" by the extra source (De Blois 1975: 95) is that of class 23.

The augmentative prefix **ku-**, labelled "3a" by the extra source (idem: 91), is presumably the same as the gu-like augmentative prefixes in other neighbouring languages, that is, class 20.

**E32 Hanga [Lùhángà; Luhya]**

1/2; 3/4; 5/6; 7/8; 9/10; 11/10; 11/14; 12/13; 14/6; 15; ogu/4; INF:15; -DIM:12/13

" **Hanga**

1/2; 3/4; 5/6; 7[eshi]/8; 9/10[tsi]; 11/10; 12/13; 14/6; 15/6 -> 7/6?; 18; oku/4 -> 20/4?; e -> 23?; INF:15; AUG:oku/4 [XS90]

The data given by the extra source (Tucker & Bryan 1957: 25ff) derive ultimately from *A Luluhya-English dictionary* by L. L. Appleby (no further references are given). No 11/14 pairing (as claimed by Guthrie; see preceding entry) is exemplified.

Pairing 15/6 is exemplified with **eshirwi** 'ear', which is put in parentheses (idem: 27) which might signify something special since the prefix is otherwise identical to that of class 7 (idem: 26).

A locative prefix 16 **ha-** is also given, but only with a single noun, **ha(bu)ndu** 'place' (idem: 27).

" **Xaayo [Lùxáàyò]**

1/2; 3/4; 5/6; 7/8; 9/10; 11/10; 12/13; 14; 15[oxu]/6; oku -> 20?; INF:15; AUG:oku [XS90]

" **Isuxa [Lwísùxà]**

1/2; 3/4; 5/6; 7/8; 9/10; 11/10; 12; ~~13~~; 14/6; 15; 16; 17; 18; uku -> 20?; INF:15; AUG:uku [XS90]

**E41 Lǫgɔɔlj**

1/2; 3/4; 5/6; 7/8; 9/10; 11/10; 11/14; 14/6; 15; INF:15

**E42 Gụsjj [Ékɪɣòsjj; Igizii; Kisiñgiri]**

1/2; 3/4+9C; 5/6; 7/8; 9+4C/10; 11/10; 12/8; ~~13~~; 14/6; 15/6; 16; 17; 18; gu/6 -> 20/6?; INF:15; DIM:12/8; AUG:gu/6.5/6 [XS90]

**E43 Kǫrja [Iɣikúría]**

1/2; 3/4; 5/6; 7/8; 9/10; 11/6; 11/10; 12/8; ~~13~~; 14/6; 15/6; 20/6; INF:15; DIM:12/8; AUG:20/6 [XS90]

The extra source (Tucker & Bryan 1957: 29ff) makes no mention of pairing 11/6.





**E45 Nata [Ikɪnata]**

1/2; 3/4; 5/6; 7/8; 9[aN]/10[ca]; 11/10[ca]; 12/8; ~~13~~; 14; 15/6; ugu/6 -> 20/6?; INF:15; -DIM:12/8; AUG:ugu/6 [XS90]

**E51 Kikuyu [Yiɣikóɣu]**

1/2; 3/4; 5/6; 7/8[i~tʃil+10C; 9/10+8C; 11/10+8C; 12/13; 14/6; 15/6; 16/17; INF:15; -DIM:12/13; AUG:7/8+10C

" **Kikuyu**

1/2; 3/4; 5/6; 7/8[i~ci]+10C; 9/10[N]+8C; 11/10[N]+8C; 12/13; 14/6; 15=17/6; 15a; 16/15b -> 16/17=15; INF:15a [XS19/XS96]

All 15-classes listed by the first extra source (Benson 1964: x) seem to be identical. Class 15b is better labelled "17" (being a locative). 15a is the infinitive class.

The second extra source (Bennett et al. 1985: 146; see also Benson 1964: x) states that the concords for classes 8 and 10 are identical, based on **i~tʃi**, and with a nasal form on adjectives.

**E54 Tharaka [Kɪθaraka]**

1/2; 3/4; 5/6; 7/8[i~ci]; 9[N]/10[N]; 11/10[N]; 12/13; 14; 15/6; 16/17; INF:15 [XS90]

The extra source (Tucker & Bryan 1957: 57) gives two nouns **ʋantu** and **(k)untu** (both meaning 'place') as locatives. No singular/plural pairing is given for these; nor is there any mention of productive locative prefixes, only the two nouns.

**E55 Kamba [Kɪkamba]**

1/2; 3+11=14C/4; 5/6; 7/8+10C; 9/10+8C; 11=14+3C/6; 11=14+3C/10+8C; 12/13; 14=11+3C/6; 14=11+3C/10+8C; 15/6; 16/17; INF:15; -DIM:12/13

" **Kamba**

1/2; 3+11=14C/4; 5/6; 7/8[i~sy]+10C; 9/10[N]+8C; 11=14+3C/6; 11=14+3C/10[N]+8C; 12/13; 14=11+3C/6; 14=11+3C/10[N]+8C; 15/6; 16/17; INF:15; DIM:12/13; +AUG:5/6 [XS28]

The extra source (Whiteley & Muli 1962: 67) lists classes 11 and 14 separately, but prefix forms and concords are identical, which I take as support of Guthrie's (1971: 46) and Kadima's (1969: 119) claim of a 11=14 merger (see preceding entry).

Moreover, the concords of class 3 are identical to those of merged class 11=14, as given by the extra source (Whiteley & Muli 1962: 67), but which Guthrie makes no note of; Kadima (1969: 110) claims at least the near-merger 3C=11C.

**E56 Daiso**

1/2; 3/4; 5/6; 7/8; 9/10; 14/6; 15; INF:15

**E61 Rwo [Kimeru]**

1/2; 3/4; 5/6; 7/8; 9/10; 11; ~~12~~; ~~13~~; ~~14~~; INF:5

**E62 Chaga [Kìʃàkà; Kìmàʃàmì; Kimotʃi; Kirombɷ]**

1/2; 3/4; 3/9; 5/6; 7/8; 9/10; 11[u~w]=14/6; 11[u~w]=14/10; 12/6; ~~13~~; 14[u~w]=11/6; 14[u~w]=11/10; 15; 16?; 17?; INF:5; INF:15; DIM:7/8; AUG:3/9,5/6 [XS90/XS104]

Kadima's (1969: 119) claimed 11=14 merger seems possible, according to the data available in the first extra source (Tucker & Bryan 1957: 52ff), which gives no plural for class 14. (Thus pairings 14/6 and 14/10 above are deduced from a 11=14 merger.)

The extra source claims class 15 to be the infinitive class (idem: 53), while Guthrie (1971: 46) gives class 5. Neither source give any examples.

Two locative nouns, **ándò** and **kúndò** meaning 'place', are given by the extra source (Tucker & Bryan 1957: 53), both with reflexes of PB prefixes 16 ***pa** and 17 ***ku**, but it makes no mention of them as productive.

The augmentative use of pairing 3/9 derives from the second extra source (Inkelas 1992).

**E65 Gweno**

1/2; 3/4; 5/6; 7/8; 9/10; 11; 12/13; 14/6; INF:5; -DIM:12/13

**E71 Pfokomo [Kiɟokomo]**

1/2; 3/4; 5/6; 7/8; 9/10; 11/10; 12/8; 12/14; ~~13~~; 14/6; 15/6; 21+5C; INF:15; -DIM:12/14; DIM:7/8,12/8; AUG:5/6,21+5C [XS90]

The concordial merger of classes 5 and 21 is only notated once. Thus it appears here and in the maps as "21+5C" but not as "5+21C" (see chapter 4 on this).

**E72a Giryama [Kigiryama]**

1/2; 3/4; 5a/4; 5/6; 7/8; 9/10; 11/10; 12/14; ~~13~~; 14/6; 15; INF:15; -DIM:12/14 [XS90]

**E72b Kauma [Nika]**

1/2; 3/4; 5/6; 7/8; 9/10; 12/8; ~~13~~; 14/6; 15; INF:15; -DIM:12/8

**E73 Digo**

1/2; 3/4; 5/6; 7/8; 9/10; ~~12~~; ~~13~~; 14/6; 15; INF:15

**E74 Daßida [Kiɗaʋiɗa]**

1/2; 3/4; 5/6; 7/8[vi]; 9/10[N~tʃ]; 11/10[N~tʃ]; 12/8; 12/13; 14/6; 15/6; INF:15; -DIM:12/8,12/13 [XS90]

The extra source (Tucker & Bryan 1957: 64) gives pairings 12/8 and 12/13 as variants for the same noun stem.

**" Sagala**

1/2; 3/4; 5/6; 7/8; 9/10[N]; 11/10a[nyu]; 12/8; 13/8; 14/6; 15; INF:15; -DIM:12/8,13/8





**" Teri [Kiteri]**

1/2; 3+14C/4; 5/6; 7/8; 9/10; 11/10; 12/8; 12/13; 14+3C/6; 15; INF:15; DIM:12/8,12/13 [XS90]

**F11 Tongwe**

1/2; 3/4; 5/6; 7/8; 9/10; 11/10; 12/13; 14/6; 15; INF:15; +DIM:12/13

**F21 Kesukuma [Sụkụma; Kigwe]**

1/2; 3/4; 5/6; 5/14; 7/8; 9/10; 11/10; 11/10a[hdzul; 11/14; 12/13; 14/10; 15; INF:15; +DIM:12/13

**" Kesukuma**

1/2; 1a/2a; 3/4+9C; 5/6; 7/6; 7[ke~ʃi]/8[ʃi]; 9+4C/10; 11/4+9C; 11/6; 11/10; 11/14; 12/6; 12/13; 14/6; 14/10; 15/6; 15/8; 16; 17; 18; INF:15; +DIM:12/13; +AUG:5/6 [XS10/XS42]

Class pairings not given by the first extra source (Batibo 1985) derive from the second extra source's vocabulary (Richardson 1967b: 12ff). I cannot find Guthrie's claimed pairing 5/14 (see preceding entry) mentioned in any of the extra sources.

The near-merger 4=9 is only partly deducible from the second extra source's material (idem: 7), but verified by concord tables provided by the first extra source (Batibo 1985: 245).

**F22 Kinyamwezi [Nyamwesj]**

1/2; 1a/2; 3/4+9C; 3/6; 5/2; 5/6; 7/6; 7/8; 9+4C/2; 9+4C/6; 9+4C/10; 11/6; 11/10; 12/6; 12/13; 14/6; 14/10; 15/6; 16; 17; 18; INF:15; +DIM:12/13; +AUG:5/6 [XS99]

The extra source (Maganga & Schadeberg 1992: 64f) gives two sets of prefixes for most classes: one shorter CV-form and a longer CVV-form.

**F23 Shumbwa [Kisumbwa]**

1/2; 3/4; 5/6; 7/8; 9/10; 11/6; 11/14; 14/6; 15; INF:15; AUG:5/6

**F25 Wungu [Iciwuñgu]**

There are basically no noun class data at all for this language, except that Johnston (1922: 4) gives the prefix **ici-** of class 7 together with the language name.

**F31 Nilyamba [Njlamba; Kɪnjlyamba]**

1/2; 3/4; 5/6; 7/8; 9/10; 12/19[ipil; ~~13~~; 14/6; 15a; INF:5,15,15a[koil; -DIM:12/19[ipil; AUG:5/6 [XS105]

The extra source (Forges 1983: 262) claims Nilyamba uses three infinitive prefixes: **i-** of class 5, **ku-** of class 15 and **kwi-** (Guthrie's **kǫj-**) which is a composite of both 5 and 15. Guthrie (1971: 48) mentions only the composite prefix **kǫj-** which he labels "15a".

**" Nilyamba**

1/2; 3/4; 5/6; 7/8[i]; 9/10[iN]; 11/10[iN]; 12/19[ipi]; ~~13~~; 14/6; 15[kwi]; 16; 17; 18; INF:15[kwi]; DIM:12/19[pi]; AUG:5/6 [XS90]

The interpretation of prefix j as class 8 is supported by Guthrie's claimed sound law *b > ø (1971: 48). However, see also Remi (F32).

**F32 Rɛ̨mj [Kɪɽímj̀; Nyaturu; Kinyaturu]**

1/2; 3/4; 5/6; 7/8; 9/10; 12/8[vi] -> 12/8or19; 12/19 -> 12/8or19; ~~13~~; 14/6; 15; INF:15; -DIM:12/8[vi] -> 12/8or19

Kadima's (1969: 94) claimed pairing 12/19 is probably the same as that denoted "12/8" by Guthrie (1971: 48); so I rewrite it here as "12/8or19". See comments following the next entry.

**" Rɛ̨mj [Nyaturu]**

1/2; 3/4; 5/6; 7/6; 7/8[i]=10?; 9/10[iN]=8?; 11/10[iN]=8?; 12/ipi -> 12/8or19; ~~13~~; 14; 15; 16; 17; 18; INF:15; DIM:12/ipi -> 12/8or19 [XS90]

According to Cole (1967: 131), pairing 7/8 should be reinterpreted as 7/10 since the plurals of both classes 7 and 9 are identical. In addition to the putative class 10 j-prefix, he also lists a class 8 βj-prefix (as plural of class 12), which also Guthrie (1971: 48) does but giving the form vj-. None of the latter two authors support the plosive form ɓj- as plural of class 12, as claimed by the extra source (Tucker & Bryan 1957: 37). However, neighbouring languages Nilyamba (F31) and Langi (F33) seem to have 12/19 pairings, not 12/8 ones. Possibly this is true also for Remi (F32), in which case classes 8 and 10 (that is, plurals of classes 7 and 9) might have merged.

**F33 Langi**

1/2; 3/4; 5/6; 7/8[ivi]; 9/10; 11/10; 12/19[ifi]; ~~13~~; 14/6; 15/6; ~~16~~; ~~17~~; ~~18~~; INF:15; DIM:12/19[ifi]; AUG:5/6 [XS90]

**F34 Mbugwe**

1/2; 3/4; 5/6; 7/8; 9/10; 12/19; ~~13~~; 14/6; 15; INF:15; DIM:12/19

**G11 Gogo [Cigogo]**

1/2; 3/4; 5/6; 7/8; 9/10; 11/10; ~~12~~; ~~13~~; 14; 15; 17; 18; INF:15; DIM:7/8; AUG:5/6 [XS90]

The extra source (Tucker & Bryan 1957: 42) also gives the locative **hanu** 'place' with the class 16 prefix **ha-**.

**G12 Kagulu [Cikagulu; Kaguru]**

1/2; 3/4; 5[dii]/6; 5a[dij]; 7/8; 9/6; 9/10[siN]; 11/6; 11/10; ~~12~~; ~~13~~; 14/6; 15; INF:15; DIM:7/8; AUG:5[dii]/6 [XS9]

**" Kagulu**

1/2; 3/4; 5/6; 7/8; 9/10; 11/10; ~~12~~; ~~13~~; 14/4; 15; 16; 17; 18; INF:15 [XS90]

Neither extra source (Nurse & Hinnebusch 1993; Tucker & Bryan 1957) mentions any of the pairings 9/6 and 11/6 mentioned by Kadima (1969).

**G21 Tußeta**

1/2; 3/4; 5/6; 7/8; 9/10; 12/8; ~~13~~; 14/6; 15; INF:15; -DIM:12/8

7/8 = claimed by Guthrie, 7/8 = claimed by Kadima, 7/8 = claimed by extra source



**G22 Asu [Pare]**

1/2; 3/4; 5/6; 7/8; 9/10; 11/6; 11/10; 12/14; ~~13~~; 14/6; 15/6; INF:15; -DIM:12/14; AUG:5/6.11 [XS9]

**G23 Shambaa [Kiʃambaa]**

1/2; 3/4; 5/6; 7/8; 9/10; 11; 12/2; 12/8; ~~13~~; 14/10; 15; 16; 17; 18; 21+5C/6; dizi -> 21; mz -> 3a; INF:15; -DIM:12/2,12/8; DIM:11; AUG:3[mz]/4.5/6.11.21[dizi]+5C/6 [XS90]

The extra source (Tucker & Bryan 1957: 49, note 1) mentions pairings 12/2 and 12/8 as alternatives for the same noun stem.

The unnumbered augmentative prefixes are exemplified with **dizɪnthu** 'large thing' (from **kɪnthu** 'thing') and **mzumba** 'large house' (from **nyumba** 'house'). Both examples occur under a heading "Other classes?" (idem: 50). The **dizi**-prefix is presumably the same as that labelled "5a" or "21" in some neighbouring languages. The initial element in the **mz**-prefix seems likely to be the prefix of class 3.

I have not bothered to notate the concordial merger of classes 5 and 21 more than once; that is, it appears here and in the maps as "21+5C" but not as "5+21C" (see chapter 4 on this).

**G24 Bondei**

1/2; 3/4; 5/6; 7/8; 9/10; 11/10; 12/8; ~~13~~; 14/10; 15; 16; 17; 18; INF:15; DIM:12/8 [XS90]

**G31 Zigula [Kizigula]**

1/2; 3/4; 5[di]/6 -> 21+5C/6?; 5a[diz]; 7/8; 9/10[ziN]; 11/6; 11/10; 12/2; 12/8; ~~13~~; 14/6; 15; 16; 17; 18; 21+5C/6; -DIM:12/2; DIM:12/8; AUG:5/6.21+5C/6 [XS9]

The pairings noted for augmentative use, 5/6 and 21/6, are presumably the same. The concordial merger of classes 5 and 21 appears here and in the maps only as "21+5C" but not as "5+21C" (see chapter 4 on this).

**G33 Zaramo**

1/2; 3/4; 5/6; 7/8; 9/10; ~~12~~; ~~13~~; 14/6; 15; INF:15; AUG:5/6

**G34 Ngulu [Kíngùlù]**

1/2; 3/4; 5/6; 7/8; 9/10; 14/6; 15; INF:15 [XS1]

**G35 Ruguru [Kiruguru]**

1/2; 3/4; 5[ø~di]/6; 5a[di]/4; 7/8=19; 9/10; 14/6; 15; ila/19=8; INF:15; -DIM:ila/19=8; AUG:5a[di]/4

Guthrie (1971: 49) gives **ila-** (in the pairing **ila-/ipfi-**) as an extraneous class. I presume it is class 12 - "with some caution", I should add, since neither Kadima (1969: 69f) nor Guthrie (1970: II/224) lists any forms of the class 12 prefix containing a liquid in any other language covered by their studies.

**" Luguru**

1/2; 3/4; 5[li]/6; 5a[lits]; 7/8[ipfi]; 9/10[tsiN]; 11/10; ~~12~~;

7/8 = claimed by Guthrie, 7/8 = claimed by Kadima, 7/8 = claimed by extra source

12[ika]/8; ~~13~~; 14/6; 15; 16; 17; 18; DIM:12[ika]/8[ipfi]; AUG:5[li]/6

[XS9]

Kadima's claim of non-existence of class 12 is invalidated by the data available in the extra source (Nurse & Hinnebusch 1993: 338).

### G36 Kami

1/2; 3/4; 5/6; 7/8; 9/6; 9/10; 11/4; 11/6; ~~12~~; ~~13~~; 14/6; 15; INF:15; DIM:7/8; AUG:5/6

### G37 Kutu [Kixutu]

There are basically no noun class data at all for this language, except that Johnston (1922: 3) gives the prefix **ki-** of class 7 together with the language name.

### G41 Tikuu [Kitikuu]

1/2; 3/4; 5/6; 7/8; 9/10; 11[ßu]/10[N]; 14/6; 15; INF:15 [XS9]

### " Cimwiini

1/2; 3/4; 5/6; 7/8; 7/10[zi]; 9/10[N]; 14/6; 15 [XS58]

Pairing 7/10 derives from Cole (1967: 132), who in turn has derived it from W. H. Whiteley (no reference given); see also Bajuni (next entry).

### " Bajuni

1/2; 3/4; 5/6; 7/8[thi] -> 7/8+10?; 9/10[N] -> 9/10+8?; 11[u]/10[thi] -> 11/8+10?; ~~12~~; ~~13~~; 14/6; 15; 16; INF:15 [XS90]

Plurals of classes 9 and 11 are both labelled "10" by the extra source (Tucker & Bryan 1957: 60), and this might suggest a re-labelling of class 8 as "10" too (compare with Cimwiini in preceding entry), since there seems to be little difference between the plural of class 7 and that of class 11. However, for want of a better solution, I chose the slightly cautious label "8+10C?" for the **thi**-plural. (The rewriting of pairing 9/10 as "9/10+8?" is a possible consequence of this.)

### G42 Kiswahili

1/2; 3+11=14C/4; 5/6; 7/8; 9/10; 11[u]=14+3C/10; ~~12~~; ~~13~~; 11=14[u]+3C; 15; 16; 17; 18; INF:15; +DIM:7/8; AUG:5/6 [XS41/XS93]

Neither extra source (Perrott 1957; Ashton 1947) employs BM numbers; thus they are my interpretations. The language form described is that of Standard Swahili, which is based on the Unguja dialect (Perrott 1957: 5).

The locative classes 16, 17 and 18 have no overt prefixes and occur only as concords (see Ashton 1947: 18ff+126ff).

As for classes 11 and 14, these are often noted as merged in Kiswahili. The first extra source (Perrott 1957) makes no distinctions between them, and Kadima (1969: 119) explicitly claims a merger of classes 11 and 14. Nurse & Hinnebusch (1993: 349ff) assume a 11=14 merger for most dialects of Kiswahili (see also next entry). The second extra source (Ashton 1947: 104ff) treats both classes jointly but gives some evidence that an original adjective concord of class 14 is still in use. Amidu (1997: 79ff) completely rejects the notion of a 11=14 merger in Kiswahili.

7/8 = claimed by Guthrie, *7/8* = claimed by Kadima, 7/8 = claimed by extra source



### " Unguja [Kiñgωje]

1/2; 1a[ø]/2; 3/4; 5[ø]/6; 5a[ɟ]; 7/8; 9/10[N]; 11=14/6; 11=14/10[N]; 11=14a; ~~12~~; ~~13~~; 14=11/6; 14=11/10[N]; 14a=11; 15; 16; 17; 18 [XS9]

Guthrie (1971: 50) makes no explicit mention of class 14, that is, besides 14a. The prefix of class 5a is a voiced palatal plosive **ɟ-**.

### G43 Phemba

1/2; 3/4; 5/4a; 5/6; 7/8; 9/6; 9/10; 11/10; 12/8; 14/6; 15?; INF:15?; AUG:5/4a [XS9]

The full range of pairings is implicitly assumed in the extra source (Nurse & Hinnebusch 1993: 341).

### G44a Shingazidja

1/2; 3/4; 5/6; 7/8[zi]; 9/10[nyi]; 11=14; ~~12~~; ~~13~~; 14=11/6; 15; dzi+5C; INF:15; AUG:dzi+5C

### " Shingazidja

1/2; 3[m]+11C/4+9C; 5/6; 7/8[zi]+10C; 9[N]+4C/10[N]+8C; 11[u]+3C/10a[nyi]+8C; 16; 17; 18; hu~u -> 15; INF:hu~u -> INF:15 [XS22]

Possibly the class 8 prefix is a reflex of class 10 (see Cole 1967).

The only near-merger explicitly claimed by the extra source (Lafon 1991: xxx) is that of 3C=11C. However, the exemplified concords for classes 4 and 9 are identical, as are those for classes 8 and 10.

The infinitive prefix **hu~u-** (idem: xxi) is presumably that of class 15, even though the extra source does not identify it as such. It is, in any case, supported by Guthrie's (1971: 50) claimed sound law ***k** > **h**.

### G44c Shimaore

1/2; 1a[ø]/2; 3/4; 5[li]/6; 5a[lidz]; 7/8[izi]; 9/10[ziN]; 14=11/6; 15; 16; 17; 18; INF:15?; AUG:5/6 [XS9]

This language is not coded by Guthrie (1971). Thus I've given it the ad hoc code "G44c".

### G51 Pogolo

1/2; 3/4; 5/6; 7/8; 7/13; 9/10; 11/4; 11/6; 11/10; 12/13; 14/6; 15; INF:15; -DIM:12/13; DIM:7/8.7/13.12/13

### G61 Sango

1/2; 3/4; 5/6; 7[icil/8; 9/10; 12/13; 14/4; 15[ugul; 20/4; INF:ki~kwi; -DIM:12/13; AUG:20/4

### G62 Hehe

1/2; 3/4; 3/6; 5/6; 7/8; 9/10; 11/6; 11/10; 12/13; 14/6; 15; 20; INF:15; -DIM:12/13; DIM:7/8.12/13; AUG:20

### G64 Pangwa

1/2; 3/4; 5/6; 7/8; 9/10; 12/8; 12/13; 14/6; 15; 20; INF:15; DIM:12/8; AUG:5/6.20

7/8 = claimed by Guthrie, *7/8* = claimed by Kadima, 7/8 = claimed by extra source

### G65 Kjnga

1/2; 3/4; 5/6; 7/8; 9/6; 9/10; 12/13; 14/4; 15; INF:15; -DIM:12/13

### (H00) Kituba

1=3[mu]/2[ba]; 1a[ø]/2[ba]; 1a[ø]/6[ma] 3=1[mu]/4[mi]; 5[di]/6[ma]; 7[ki]/8[bi]; 9[N]/2[ba]; 11[lu]/6[ma] [XS68]

The extra source (Swift & Zola 1963) uses no BM numbers; thus they are my interpretations. The recognition of a putative 1a-class may be questioned since there is no concordial system at all in Kituba, only a system of noun prefixes. Thus "1a" refers to nothing at all. Still, I need a label and "1a" seems the best candidate.

Kituba has no map entry point because it was included too late. It is a Bantu-based creole. The language from which it originates is that of Kikongo (H16), or some dialect of it. It is spoken in an area that roughly corresponds to upper zone H and/or lower zone B. Hence I have given it the ad hoc code "H00".

Note that data from Kituba are used chiefly for the discussion in chapter 3 on typological variation.

### H11 Bembe [Kibeembe]

1/2; 3/4; 5/6; 7/8; 9/6; 11/6; 11/10; ~~12~~; ~~13~~; 14/6; 15; INF:15

### H12 Vili [Kivili; Kivumbu?; Luwumbu?]

1=3/2; 3=1/4; 5/6; 7/8[bí]; 9/10[sí]; 11/10[sí]; 11/13; 14/4; 14/6; 15/6 [XS92]

The names "Kivumbu" and "Luwumbu" may not belong here at all. They derive from Johnston (1922: 7) and could be variant names of Wuumu (B78) instead.

### (H16) Kikongo

1/2; 3/4; 5/6; 7/8; 9/10; 11/10; 11/13; ~~12~~; 14/6; 15; 19/8; ~~19/13~~; INF:15? [XS1]

The data given here presumably refer to Central Kikongo (H16b).

### H16b (Central) Kikongo

1/2; 3/4; 5/6; 7/8; 9/10; 11/6; 11/8; 11/10; 11/13; ~~12~~; 14/6; 15/6; 16; 17; 18; 19/8; INF:15; -DIM:19; DIM:7/8,19/8 [XS77]

### " (Central) Kikongo [Mazinga]

1/2; 1a/2; 3[mu~N]/4; 3a[u~ø]; 5/6; 7/8; 9/8; 9/10[ziN]; 11/6; 11/8; 11/10[ziN]; 11/13; 14[bu]/6; 15/6; 16; 17; 18; 19/8; INF:15; +DIM:7/8,19/8,11/13,11/8,9/8 [XS34]

The extra source (Laman 1912) employs no BM numbers; thus they are my interpretations (see also preceding entry).

Classes 1 and 3 seem to be identical, prefix and all (idem: 70f et passim). Moreover, there seem to be two class 3's, one with a **mu~N-** prefix, the other with a **u-** or zero-prefix. (Concords are identical.) The latter, labelled "3a" above, is used as a single class only (idem: 66).





### H16c Kiyombe [Ciluañgω]

1/2; 1a/2; 3[mu~N]/4; 5/6; 7/8; 9/10; 11/6; 11/10; ~~12~~; 13/6; 14/6; 15/6; 19/8; ~~19/13~~; INF:15; DIM:19,mua,'child' [XS66]

The extra source (De Clercq 1907) uses no BM numbers; thus they are my interpretations. Concords for classes 1 and 3 seem to be largely identical but not completely so.

Singular diminutives are formed in three different ways (idem: 456): (1) with a class 19 prefix, as in **fimbēle** 'un petit couteau' (Fr.); (2) with a word for 'child', as in **muāna mbēle**; or (3) with parts of a word for 'child', as in **muambele**. In plural, there is (only?) a construction involving the plural word **bāna** 'children' plus what looks like a class 8 prefix **bi-**, for instance, **fiwāyi** 'un petit chat' (Fr.) versus **bāna bi mbēle** 'de petits couteaus' (Fr.). All singular diminutive constructions take class 19 concord (idem: 783). Possibly the plural construction takes concords of class 8.

### H16f Laadi [Kilaadi]

1/2; 3/4; 5/2; 5/6; 7/8[bi]; 9/10; 11/6; 11/13; 14/6; 15[ø~ku]; 15[ku]/6; 16; 17[ku]; 18; 19/8[ø]; INF:15; DIM:19/8[ø] [XS71]

The extra source (Jacquot 1967; 1982) uses idiosyncratic class numbers; thus some classes have been re-labelled by me.

The plural classes of 7 and 19 have identical concords, based on **bi** (Jacquot 1982: 149), so I have labelled both "8".

### H21 Kimbundu [Angola]

1/2; 3/4; 5/6; 7/8; 9[ø]/10[ji]; 11/6; 12/13; 13/6; 14/6; 15/6; INF:15; -DIM:12/13 [XS88]

The extra source (Homburger 1925) uses no BM numbers; thus they are my interpretations.

### H22 Sama [Kisama]

There are basically no noun class data at all for this language, except that Johnston (1922: 6) gives the prefix **ki-** of class 7 together with the language name.

### H23 Bolo [Libōlω; Lubωlu]

There are basically no noun class data at all for this language, except that Johnston (1922: 6) gives the prefixes **li-** of class 5 and **lu-** of class 11 together with the language name, that is, **libōlω** and **lubωlu**.

### H31 Yaka

1/2; 3/4; 5/6; 7/8; 9/10; 11/10; 11/13; 14/6; 15; INF:15

### H33 Hungu

1/2; 3/4; 5/6; 7/8; 9/10; 11/6; 11/10; 12/13; 14/6; 15/6; INF:15; -DIM:12/13

### H41 Mbala

1/2; 3+14C/4; 5/6; 7/8+9C; 9+8C/6; 9+8C/10; 12/13; 14+3C/6; 15; INF:15

**H42 Hunganna**

1/2; 3/4; 5/6; 7/8; 9/10; 11; 14/6; 15; INF:15

**K11 Ciokwe [Cibokwe]**

1/2; 1a/2; 3+14C/4+8C=9C; 5/6; 7/8+4C=9C; 9+4C=8C/10[N~jiN]; 11/10[ø~N]; 12/13; 14+3C/6; 15; 15a+5C/6; 16; 17; 18; INF:15; +DIM:12/13; +AUG:7/8+4C=9C,11/10 [XS56]

**K12a Luimbi**

1/2; 1a/2a; 3/4; 5/6; 7/8; 9/10[ziN]; 11/10[zi]; 12/13; 14/6; 15; 16; 17; 18; INF:15; +DIM:12/13; +AUG:7/8,11/10 [XS56]

The difference between classes 2 and 2a is manifested in their possessive concords only (White 1944: 154). Plural animate nouns sometimes (irregularly it seems) carry an extra prefix va- (idem: passim).

**K12b Ngangela**

1/2; 3+14C/4; 5/6; 7/8; 9[n]/10[zin]; 11/6; 11/10[zin]; 12/13; 14+3C; 15; INF:15; DIM:11; AUG:5/6 [XS88]

The extra source (Homburger 1925) uses no BM numbers; thus they are my interpretations. Kadima's claimed pairing 11/6 cannot be deduced from the meager material provided by the extra source.

**K13 Luchazi [Lujazi]**

1/2; 1a/2a; 3/4; 5/6; 7/8; 9/10[ziN]; 11/10[zi]; 12/13; 14/6; 15; 16; 17; 18; INF:15; +DIM:12/13; +AUG:7/8,11/10 [XS56]

The difference between classes 2 and 2a is manifested in their possessive concords only (White 1944: 154). Plural animate nouns often carry an extra va-prefix (idem: passim).

**K14 Lwena [Luina; Luvale]**

1/2; 1/6; 1a/2; 1a/6; 3+14C/4+9C; 5/6; 7/8; 9+4C/2; 9+4C/10[jiN]; 11/10[ji]; 12/13; 14+3C/6; 15; 16; 17; 18; INF:15; +DIM:12/13; +AUG:5/6,7/8,11/10 [XS26]

The extra source (White 1949) uses no BM numbers; thus they are my interpretations. Animate plural nouns sometimes carry an additional va-prefix (White 1944, passim).

The augmentative use of pairing 5/6, claimed by Kadima (1969: 156), is not supported by the extra source.

**K15 Mbunda**

1/2; 3/4; 5/6; 7/8[ßi]; 9/8[ßiN]; 9/10[ðiN]; 11/10[ðiN]; 12/13; 14/6; 15; INF:15; -DIM:12/13 [XS58]

**K21 Silozi [Lozi; Kololo]**

1/2; 3/4; 5[li]/6; 7/5[li] -> 7/10[li] -> 7/8=10?; 7/8[bi]; 7/10x[zi]; 8; 8=5; 9/5[li] -> 9/10; 10; 11/6; 11/10; 12/13; 14/6; 15; INF:15; +DIM:12/13 [XS58]

7/8 = claimed by Guthrie, 7/8 = claimed by Kadima, 7/8 = claimed by extra source



Guthrie (1971: 53) claims a non-existence of class 8, lending support to Kadima's (1969: 115) claim of a 5=8 merger. This, however, is contradicted by the extra source (Cole 1967: 128f; see Silozi entries below), who finds three plural classes for class 7: class 8 bi-, class 10 li- and class 10x zi-. The one displaying a labial is noted as an alternative and infrequent plural for singular class 7 noun (idem: 128). The li-form is the same as that labelled "5" by Guthrie. This is explained as being "of Southern Sotho origin" and is probably a merged 8=10 class (see chapter 4 on this). The third, labelled "10x" by the extra source, seems likely to be an areal influence from neighbouring languages. Similar class 10 forms, zi- and ji-, are found in neighbouring areas.

According to Guthrie (1971: 53), singular class 5 is identical to the plural class in Guthrie's pairing 7/5. However, this is contradicted by other extra sources (Doke 1954; Gowlett 1989; see Silozi entries below), who exemplify the classes involved with different series of concords.

**" Silozi**

1/2[ba]; 1a/2b[bo]; 3/4; 5/6; 7/10[li]; 7/19[bi] -> 7/8; 9/10[liN]; 11; 12/13; 14; 15; 16; 17; 18; 19 -> 8 [XS55]

Pairing 7/19 claimed by the extra source (Doke 1954: 241) is possibly better labelled "7/8" (see entry immediately below). Moreover, I have re-labelled the plural of 1a as "2b", due to the presence of an o-like vowel.

Concords for classes 4 and 9 are very similar but not identical (idem: 241).

There is no support for Guthrie's (1971: 53; see entry above) claimed 7/5 pairing, which is represented here as that of 7/10.

**" Silozi**

1/2; 1a/2b; 3/4; 3/8[bi]; 5/6; 5/8[bi]; 7/8[bi]; 7/10[li]; 9/6; 9/10[li]; 11/6; 11/8[bi]; 12/13; 14/6; 15; 16; 17; 18; INF:15; +DIM:12/13; -AUG:3/8,5/8,7/8 [XS4]

The extra source (Gowlett 1989: 135) gives both pairings 7/8 and 7/10, but makes no mention of a possible 7/19 pairing. Nor does he mention pairing 9/6 as claimed by Kadima (1969: 91).

The extra source (Gowlett 1989) gives both i- (idem: 134) and li- (idem: 137) as prefix forms of class 5. Moreover, concords are completely different compared to those of class 10. Thus Guthrie's (1971: 53; see first Silozi entry above) claim of a 7/5 pairing is invalidated.

**K31 Luyana [Luyi; Silũyi]**

1/2; 3/4; 5/6; 7/8[ii]; 9+10C/6; 9+10C/10[itiN]+9C; 11/6; 11/10[itiN]+9C; 11/13; 12/13; 14/6; 15/6; INF:15; -DIM:12/13; AUG:5/6 [XS88]

The extra source (Homburger 1925) uses no BM numbers; thus they are my interpretations.

**K33 Rukwangali [Thikwangali]**

1/2; 3/10a=4+10C; 4; 5/6; 7/8; 9/10+10a=4C; 11/6; 11/10a=4+10C; 12/13; 14/6; 15/6; INF:15; -DIM:12/13

7/8 = claimed by Guthrie, 7/8 = claimed by Kadima, 7/8 = claimed by extra source

Kadima (1969: 115) claims the near-merger 4C=10C, with prefix forms **nomu-** for class 4 and **noN-** for class 10. (Guthrie's (1971: 53) class 10a is the same as Kadima's class 4.)

" **Rukwangali**

1/2[va]; 1a/2b[o]; 3[mu]/10[nomu]=4?; 4; 5/6; 7/8; 9/2; 9[N]/10[noN]=4?; 11/2; 11[ru]/6; 11[ru]/10[noru]=4?; 12/2; 12/13; 14/6; 15; 16; 17; INF:15; +DIM:12/13,suffix; +AUG:5/6 [XS11/XS108]

The plural of 3 is labelled "4" by the extra source (Dammann 1957:10), which I have relabelled as "10". The plurals of classes 3 and 9 are identical. The second syllable of the prefixes (**-mu-** and **-N-** respectively) gives the singular prefixes, which are retained in the plural (see also second plural of class 11). Kadima's (1969: 115) claim of a near-merger 4C=10C could possibly be taken as indicative of a prior 4=10 merger. This, however, presupposes a prior existence of both classes.

Guthrie (1971: 53) claims a non-primary status for pairing 12/13 (that is, -DIM; see previous entry). This, however, is not supported by the first extra source who assigns a bunch of primary nouns to classes 12/13 (Dammann 1957: 12f).

As for pairings 9/2, 11/2 and 12/2, they are used for nouns denoting animals only (idem: 12).

## K37 Kwangwa [Sikwañgwa]

There are basically no noun class data at all for this language, except that Johnston (1922: 6) gives the prefix **si-** of class 7 together with the language name.

## K38 Rugciriku [Dciriku; Thigciriku]

1/2; 1a[ø]/2; 3/3; 3/10[di]=4?; 4; 5/6; 7/8; 9[N]/10[N]=4?; 11/6; 12/2; 12/13; 14/6; 15/2; 16; 17; 18; INF:15; +DIM:12/13; +AUG:5/6 [XS12]

Guthrie has no coding for this language. "K38" derives from Möhlig (1983).

Kadima (1969: 115) claims a near-merger 4C=10C. Presumably he has taken note of the differing prefixes. I have nonetheless relied on the analysis provided by the extra source (Möhlig 1967). See also the discussion under Rukwangali (K33).

Some animate plural nouns of classes 9, 12 and 15 carry an additional **ßa-**prefix of class 2 (idem: 112). Thus, for instance, the prefix form used on the plural of class 12 is actually a composite of prefixes of classes 2 and 13. Though related to the same general phenomena, the 12/2 pairing given above is distinct from this in that it involves the superimposing of a class 2 prefix on the singular form, thus creating a composite 2+12 prefix.

## K42 Cisubiya [Subiya]

1/2; 3/4; 5/6; ~~7/8~~; 7/8[ezil -> 7/10[zi]; 9/6; 9/10[iN]; 11/10; 12/13; 14/6; 15/6; INF:15; -DIM:12/13 [XS58]

The extra source (Cole 1967: 130) reinterprets pairing 7/8 as 7/10. However, a 8+10C analysis seems more probable; see next entry below.

" **Cisubiya**

1/2[ba]; 1a/2a[ba]; 3/4; 5/6; 7/8[zi]+10C; 9/2a; 9/10[iN]+8C; 11/6; ~~11/10~~; 11/10[iN]+8C; 12/13; 14/6; 15/6; 16; 17; 18 [XS25]





The extra source (Davey 1965: 20) labels the plural of class 7 as "8x" which translates as "10" if we follow suggestions made by Cole (1967; see also entry above). However, I chose to rely on Kadima's analysis instead, that is, 8+10C.

I take it that Kadima's rejection of pairing 11/10 is a mistake.

As for the distinction between classes 2 and 2a, it seems to manifest itself in the tonal behaviour of the noun stem (Davey 1965: 30ff).

## K43 Thimbukushu

1+9C/2; 1a[ø]+9C/2; 1a[ø]+9C/6; 3/4+10C; 5/6; 7/8; 9[N]+1C/2; 9[N]+1C/3; 9[N]+1C/10[N]+4C; 9[N]+1C/14; 10[N]+4C/6; 11/6; 12/13; 14/4+10C; 14/6; 15/6; 16; 17; 18; INF:15; +DIM:12/13,suffix; +AUG:5/6 [XS24]

The extra source (Fisch 1977) employs no BM numbers; thus they are my interpretations. Guthrie has no coding for this language. The K43-coding derives from Möhlig (1983).

Pairing 9/2 comprises typical 1a-nouns, such as personified animals (Fisch 1977: 31). Pairings 9/3, 9/14 and 14/4 signify more than just ordinary plurality, and are used in addition to the 9/10 and 14/6 pairings (idem: 32+36).

Pairing 10/6 seems odd. The singular class is identical to the plural class of pairing 9/10. The prefix is a nasal **N-** and could of course be that of class 9 instead, but this would require the label "9+4C=10C/6". I have chosen the simpler one, since otherwise we would have two separate series of concords for class 9, that is, 9+4C=10C and 9+1C.

## L11 Pende

1/2; 3+14C/4+8C=9C; 5/6; 7/8+4C=9C; 9+4C=8C/10[dziN]; 11/6; 11/10[dziN]; 12/13; 14+3C/6; 15/6; INF:15; +DIM:12/13

" **Pende**

1/2[a]; 3/4; 5/6; 7[gi]/8[i]; 9[ø~N]/10[ø~zi]; 11/6; 11/10; 12[ga]/13[tu]; 14/6; 15/6 [XS95]

The extra source (Gusimana 1972) uses no BM numbers; thus they are my interpretations. Class pairings are given as prefix pairs in the introduction (idem: x ff).

Pairing 11/6 is not deducible from the introduction, but several 11/6 pairings are exemplified in the dictionary part where they are noted as di-ma nouns - for instance, the entry **luhila** has the definition "n.cl. di-ma, v. kupa, pl. maluhila" (idem: 93).

Also pairings 11/10 and 15/6 appear only in the dictionary part; see, for instance, entries **losha** and **gutshui**.

Pairing 14/6 (not listed in the introduction either) is mentioned under the letter "u" where it is stated that "certains noms en «u» ont le pl. en «ma»" (idem: 210).

## L12 Holu

1/2; 3+11C=14C/4+9C; 5/6; 7/8; 9+4C/10; 11+3C=14C/6; 14+3C=11C/6; 15; INF:15

## Samba [Cisamba]

There are basically no noun class data at all for this language, except that Johnston (1922: 7) gives the prefix **ci-** of class 7 together with the language name.

### L13 Kwese [Kikwese]

There are basically no noun class data at all for this language, except that Johnston (1922: 7) gives the prefix **ki-** of class 7 together with the language name.

### L21 Kete [Lukete]

1=3+9C/2; 3=1+9C/4; 5/6; 7/8; 9+1=3C/10; 14/6; 15; INF:15 [XS105]

Kadima (1969: 111) also claims the near-merger 3C=14C for what he labels "Kete-S", distinct from what he otherwise labels simply "Kete" (idem: 110). I have decided to ignore this near-merger. Its presence is attested in enough nearby languages anyway.

### L23 Songe [Lusoñge]

1/2; 3/4[mi]+10C; 5/6; 7/8; 9[N]/6; 9[N]/10[N]+4C; 11/6; 11/10[N]+4C; 12/13; 14/6; 15; INF:15; +DIM:12/13; AUG:7/8,11

Kadima (1969: 84) claims a 9=10 merger, but this is explicitly contradicted by Guthrie's data (1971: 54), which provide identical prefixes but different concordial elements. Guthrie's data lend support to Kadima's near-merger 4C=10C, though.

### (L20) Mbagani

1/2; 3/4; 5/6; 7/8; 9=10/6; ~~9=10/10=9~~; 11/10=9; 12; 14/6; 15; INF:15

This language has not been plotted into any maps. The data are discussed in the main text.

### L31 Luba-Kasai [Ciluba]

1+9C/2; 3/4+10C; 5/6; 7/8; 9+1C/10+4C; 11/10+4C; 12/13; 14/6; 15; INF:15; +DIM:12/13; AUG:7/8,11

### L32 Kanyok [Kanyoka]

1/2; 3+9C=15C/4+10C; 5/6; 7/8; 9+3C=15C/2; 9+3C=15C/6; 9+3C=15C/10+4C; 11/2; 11/6; 11/10+4C; 12/13; 14/6; 15+3C=9C/6; 16; 17; 18; INF:15 [XS85]

The extra source (Mukash-Kalel 1983) mentions no 11/6 pairing.
Classes 3, 9 and non-infinitive 15 employ identical concords, labelled "3" by the extra source, as do classes 4 and 10, labelled "4" by the extra source (idem: 213).

### L33 Luba-Katanga

1/2; 3/4+9=10C; 5/6; 7/8; 9=10+4C/6; 9=10+4C/10=9+4C; 11/6; 11/10=9+4C; 12/13; 14/6; 15; 15/4+9=10C; INF:15; +DIM:12/13; AUG:7/8,11

### L34 Hemba [Kihemba]

1/2; 3/4+9=10C; 5/6; 7/8; 9=10+4C/6; 9=10+4C/10=9+4C; 11/6; 11/10=9+4C; 14/6; 15; INF:15; AUG:7/8,11

### L35 Sanga [Cisañga]

1/2; 3/4+9=10C; 5/6; 7/8; 9=10+4C/6; 9=10+4C/10=9+4C; 11/6; 11/10=9+4C; 14/6; 15; INF:15; AUG:7/8,11





### L39 Lwalu

1/2; 3/4; 5/6; 7/8; 9=10/6; 9=10/10=9; 11/10=9; 14/6; 15; INF:15

Guthrie (1971) provides no code for this language. Thus I have given it the ad hoc code L39.

### L41 Kaonde

1/2; 3/4; 5/6; 7/8; 9=10/6; ~~9=10/10=9~~; ~~10~~; 11/6; 11/10=9; 12/13; 14/6; 15; INF:15; +DIM:12/13

Kadima (1969: 114) suggests a possible 4C=9C near-merger but annotates it with a question mark.

### L51 Salampasu

1/2; 3+14C/4+8C=9C; 5/6; 7/8+4C=9C; 9+4C=8C/10; 14+3C/6; 15; INF:15

### L52 Lunda

1/2; 3/4; 5/6; 7/6; 7/8; 9/10; 11/10; 12/13; 14/6; 15/6; INF:15; +DIM:12/13

### " Lunda

1/2; 1a/2; 3/4[nyi]; 5/6; 7/8; 9/10[N~jiN]; 11/10[N~jiN]; 12/13; 14/6; 15; 16; 17; 18; INF:15; +DIM:12/13; +AUG:7/8,11/10 [XS56]

Animate nouns carry an additional **a-**prefix (White 1944, passim).

### L53 Ruund

1/2; 3+14C/4+8C=9C; 5/6; 7/8+4C=9C; 9+4C=8C/10; 14+3C/6; 15; INF:15; AUG:11

### (L50) Ndembo

1/2; 3+14C/4+8C=9C; 5/6; 7/8+4C=9C; 9+4C=8C/10; 14+3C/6; 15; INF:15; AUG:11

This language has not been plotted into any maps. The data are discussed in the main text.

### L62 Nkoya

1/2; 3/4; 5/6; 7/8; 9/10; 11/10; 12/13; 14/6; 15; INF:15; +DIM:12/13

### M11 Pjmbwe

1/2; 3/4; 5/6; 7/8; 9/10; 11/10; 12/13; 14/6; 15; INF:15; -DIM:12/13

### M13 Fipa

1/2[ßa~ya]; 1a/2; 3/4; 5/2; 5/6; 7/6; 7/8[ti]; 9[N]/6; 9[N]/10[N]; 11/10[N]; 12/13; 14/6; 15/6; 16; 17; 18; INF:15; +DIM:12/13; +AUG:5/6,7/8 [XS65]

The extra source (Struck 1911) uses somewhat obsolete BM numbers.
Pairing 1a/2 is implicitly given as a number of examples (idem: 965), while three 15/6 nouns are listed as 17/6 nouns (idem: 968).

**M15 Mambwe**

1/2; 3/4+9C; 5/6; 7/8; 9+4C/10; 11/10; 12/13; 14/6; 15; INF:15; +DIM:12/13; AUG:7/8

**M21 Wanda [Iṣiwanda; Iciwandia]**

There are basically no noun class data at all for this language, except that Johnston (1922: 4) gives the prefixes **ishi-** and **ici-** of class 7 together with the language names **iṣiwanda** and **iciwandia**.

**M22 Mwanga [Cinamwañga]**

1/2; 3/4; 5/6; 7/8; 9/10; 11/10; 12/13; 14/6; 15; INF:15; -DIM:12/13

**M23 Nyiha [Iṣinyixa]**

1/2; 3/4; 3/6; 5/6; 7/8; 9/10; 12/13; 14/6; 14/8; 15; INF:15; AUG:3/4.5/6

**M25 Safwa**

1/2; 3/4; 3/6; 5/6; 7/8; 9/10; 11/10; 12/8; 13; 14/6; 15; INF:15; +DIM:12/8; AUG:3/4.5/6

**M26 Iwa [Iṣiwiwa]**

There are basically no noun class data at all for this language, except that Johnston (1922: 4) gives the prefix **iṣi-** of class 7 together with the language name.

**M31 Nyękyǫsa [Ikinyikiūsa; Konde; Kukwe; Ikikukwe]**

1[oN]/2[aßa]; 1a[ø]/2a[ßa]; 1b[o]/2a[ßa]; 3/4; 5/4; 5/6; 7/8; 9/10; 11/10; 12/13; 14/4; 15; INF:15; -DIM:12/13; DIM:7/8.12/13; AUG:3/4.5/6.12 [XS1]

**M41 Taabwa**

1/2; 3/4+9=10C; 5/6; 7/8; 9=10+4C/10=9+4C; 11/10=9+4C; 14/6; 15; INF:15; AUG:7/8

**M42 Icibemba [Bemba]**

1/2; 3/4+9C; 5/6; 7/8; 9+4C/6; 9+4C/10; 11/6; 11/10; 12/13; 14/6; 14/10; 15/6; INF:15; +DIM:12/13; AUG:7/8

**" Icibemba**

1/2[aba]; 1a/2a[ba]; 3/4+9C; 5/6; 7/8; 9+4C/6; 9+4C/10; 11/10; 12/13; 14/6; 14/10; 15/6; 16; 17; 18; INF:15; +DIM:12/13; +AUG:7/8 [XS27]

The extra source (Van Sambeek 1952) uses no BM numbers; thus they are my interpretations.

There is no mention of any possible 11/6 pairing as claimed by Guthrie (1971: 57; see preceding entry above). Pairing 14/10 is exemplified with only a single noun **ubulendo/inyendo** 'journey(s)' (Van Sambeek 1952: 13).





**M51 Biisa**

1/2; 3/4; 5/6; 7/8; 9/10; 11/6; 11/10; 12/13; 14/6; 15/6; INF:15; +DIM:12/13; AUG:7/8

**M52 Lala**

1/2; 3/4+9C; 5/6; 7/8; 9+4C/10; 11/6; 14/6; 15; INF:15; AUG:7/8

**M54 Lamba**

1+3C/2; 3+1C/4+9C; 5/6; 7/8; 9+4C/6; 9+4C/10; 11/6; 11/10; 12/13; 14/6; 15=17/6; 16; 17=15; 18; INF:15=17; AUG:7/8 [XS101]

The pairings are deduced from the list of paired demonstratives given by the extra source (Doke 1933; 1963b); it is a dictionary. The near-merger 1C=3C could be a full merger.

**M61 Lenje**

1/2; 3/4; 5/6; 7/8[ʃi]+10C -> 7/10 -> 7/8+10C; 9/10[N]+8C; 11/6; 11/8[ʃi]+10C -> 11/10[ʃi] -> 11/8+10C; 11/10[N]+8C; 12/13; 14/6; 15/6; INF:15; +DIM:12/13; AUG:3/4 [XS58]

The extra source (Cole 1967: 130) reinterprets pairing 7/8 as 7/10, and I assume that a similar reinterpretation might also apply to the plural in 11/8. PB *lj to Lenje ʃi is supported by Guthrie's (1971: 57) claimed sound law *$C_1$i > ʃi, which also supports PB *βj to Lenje ʃi. However, the former is supported also by reflexes occurring in stems (Cole 1967: 130). Kadima (1969: 118) claims only a near-merger 8C=10C, due to the separate prefix forms ʃi- and N- respectively; I see no reason not to rely on Kadima.

**M63 Ila [Ciila]**

1/2; 3/4; 5/6; 7/8[bi]; 7/8[ʃi] -> 7/10[ʃi] -> 7/8a+10C?; 9/10[iN]+8aC?; 11/6; 11/10[iN]+8aC?; 12/13; 14/6; 15/6; INF:15; +DIM:12/13; AUG:5/6 [XS58/XS105]

According to the first extra source (Cole 1967: 130), both **bi-** and **ʃi-** occur as plurals of class 7; the former prefix (labelled "8" by the extra source) occurs only in a few nouns as an alternative plural form to the one formed with the latter prefix (labelled "10" by the extra source). For lack of a better solution, I have labelled prefix ʃi- "8a". Either one of the prefixes **bi-** or **ʃi-** could be an areal influence. As for not accepting Cole's 7/10 solution, see notes for Lenje (M61) above.

Moreover, the first extra source (Cole 1967: 130; see also Guthrie 1971: 57) claims concords for classes 8 ʃi- and 10 N- to be based on ʃi and says explicitly that they are identical, wherefore I have rewritten the label of class 8a as "8a+10C?" (and that of class 10 as "10+8aC?").

**M64 Plateau-Tonga**

1/2; 3/4; 5/6; 7/8[zi] -> 7/10 -> 7/8+10C?; 9/10[iN]+8C?; 11/6; 11/10[iN]+8C?; 12/13; 14/6; 15/6; INF:15; AUG:5/6 [XS30/XS58]

The first extra source (Griffin 1915) uses no BM numbers; thus they are my interpretations.

The second extra source (Cole 1967: 130) claims a 7/10 pairing, which I have not accepted. See comments to Lenje (M61) and Ila (M63) above.

**N11 Manda [Kimanda]**

1/2; 3/4; 5/6; 7/8; 9/10; 12/13; 14/6; 15; INF:15; -DIM:12/13

**N12 Ngonj**

1/2; 1a/2; 3/4; 5/6; 7/8; 9/10[ziN]; 11; 12/13; 14; 15=17; 16; 17=15; 18; 20; INF:15=17; AUG:5/6.20 [XS55]

Although the extra source (Doke 1954: 238) makes a distinction between classes 2 (plural of class 1) and 2a (plural of class 1a), they are given as formally identical.

Kadima's (1969: 159) claimed existence of an augmentative class 20 is not supported by the extra source.

**N13 Matengo [Kimateñgω]**

1/2; 3/4; 5/6; 7/8; 9/10; 11/6; 12/13; 14/6; 15; INF:15; -DIM:12/13

**N14 Mpoto [Cimpωtω]**

There are basically no noun class data at all for this language, except that Johnston (1922: 5) gives the prefix ci- of class 7 together with the language name.

**N15 Tonga [Citoñga; Siska; Cisiska; Cisisya]**

There are basically no noun class data at all for this language, except that Johnston (1922: 4) gives the prefix ci- of class 7 together with the language name.

**N21 Tumbuka [Citumbuka; Kamanga; Cikamañga]**

1/2; 3/4+9C; 5/6; 7/8; 9+4C/10; 11/6; ~~11/10~~; 11/10; 12/6; 12/13; 14/6; 15; INF:15; -DIM:12/13; AUG:7/8

**" Tumbuka**

1/2; 1a/2; 3+14C/4+9C; 5/6; 7/8; 9+4C/10[ziN]; 11/6; 12/6; 12/13; 14+3C/6; 15; 16; 17; 18; INF:15; +DIM:12/13,5; +AUG:7/8 [XS39]

Guthrie's (1971: 58) claim of -DIM for pairing 12/13 is not supported by the extra source (Vail 1971: 50f), where also primary nouns are given for this pairing.

Guthrie's claimed pairing 11/6 (see preceding entry above) is rejected by both the extra source and Kadima (1969: 87).

Furthermore, the extra source labels the plurals of classes 1 and 1a as "2" and "2a" respectively, but there are no formal distinctions offered (Vail 1971: 40ff).

**N31a Chinyanja [Nyanja]**

1/2+6C; 1a[ø]/2+6C; 1a[ø]/6+2C; 3+14C/4+9C; 5/6+2C; 7/6+2C; 7/10[zi] -> 7/8=10?; 9+4C/6; 9+4C/10[zi] -> 9+4C/10=8?; ~~11~~; 12/13[ti]; 14+3C/6+2C; 15; 16; 17; 18; INF:15; -DIM:12/13; AUG:7/8=10? [XS32]

The extra source (Price 1946) employs no BM numbers; thus they are my interpretations. Pairings 1a/2 and 1a/6 are given as unregular variants of pairing 1/2 (idem: 33).

The near-mergers 2C=6C, 3C=14C and 4C=9C are claimed by Kadima (1969: 109+111+114) and supported by the concord tables offered by the extra source. In addition to these, Kadima claims a near-merger 8C=10C





(idem: 118). However, I have opted to interpret the second plural of class 7 as that of a possible merged class 8=10 instead of class 8, since they are identical, prefix as well as concords.

**N31b Chichewa [Cewa; Peta; Cipeta]**

1/2[a]+6C; 1a[ø]/2[a]+6C; 3/4+9C; 5/6+2C; 7/8[zi]+10C; 9[N]+4C/10[N]+8C; ~~11~~; 12/13[ti]; 14/6+2C; 15; 16; 17; 18; INF:15; -DIM:12/13; AUG:7/8[zi]+10C [XS46/XS98]

The first extra source (Hullquist 1988) employs no BM numbers; the second (Mchombo 1998) does. Pairing 7/8 is implicitly given as a 7/10 pairing by the first extra source's labelling system, being labelled "chi/zi", while that of 9/10 is labelled "i/zi" (Hullquist 1988: 44). Concords for both plural classes are identical. Strangely, Kadima (1969: 53) claims a vi- prefix for class 8, for which there is no support in any of the extra sources.

**N31c Manganja [Cimañanja]**

1/2; 3/4; 5/6; 7/8[zil; 9/10; 11/6; 12/13[til; 14/6; 15; 18; INF:15; -DIM:12/13[til

**N41 Nsenga [Cinseñga]**

1/2+6C; 3+14C/4+9C; 5/6+2C; 7/8; 9+4C/10; 11/6; 11/10; 12/13; 14+3C/6+2C; 14+3C/8; 15; INF:15; +DIM:12/13; AUG:7/8

**N42 Kunda [Cikunda]**

There are basically no noun class data at all for this language, except that Johnston (1922: 5) gives the prefix ci- of class 7 together with the language name.

**N43 Nyungwe [Cinyungwe; Tette]**

1/2; 1a[ø]/2; 3/4+9C; 5+11C/6; 7/8[bzil; 9+4C/10[ziN]; ~~11~~; 11[rul+5C/6; 12/13; 14/6; 15=17; 16; 17=15; 18; INF:15=17; -DIM:12/13; AUG:7/8 [XS75/XS102]

Kadima (1969: 84) explicitly claims a non-existence of class 11, and he mentions no mergers (idem: 108ff). Implicitly in support of this, the first extra source (Torrend 1914; possibly Kadima used this too?) lists no nouns with any possible class 11 prefix. Neither does the second extra source (Dos Anjos Martins 1991: 27ff).

**N44 Sena [Cisena]**

1/2; 3+14C/4; 5/6; 7/6; 7/8; 9/10; ~~11~~; ~~12~~; 12/8; ~~13~~; 14+3C/6; 15; INF:15; DIM:7/8.12/8

**N46 Podzo [Cipodzω]**

There are basically no noun class data at all for this language, except that Johnston (1922: 5) gives the prefix ci- of class 7 together with the language name.

**P13 Kimatuumbi [Matụmbi]**

1/2; 3/4; 5/6; 7/8; 9/6; 9/10; 11/6; 11/10; 12/6; 12/13; 14/4; ~~14/6~~; 15; INF:15; -DIM:12/13

**" Kimatuumbi**

1/2; 3+14C/4; 3+14C/6; 5/6; 7/8+9=10C; 9=10+8C/6; 9=10+8C[N]/10=9+8C[N]; 11/6; 11/10=9+8C[N]; 12/13; 14+3C; 14+3C/10=9+8C[N]; 15; 16; 17; 18; INF:15; -DIM:12/13; +AUG:5/6 [XS76]

The extra source (Odden 1996) makes no mention of pairings 12/6 and 14/4, as claimed by Kadima (1969: 93+95); see entry immediately above.

**P14 Ngindo [Ciñgindω]**

There is basically no noun class data at all for this language, except that Johnston (1922: 5) gives the prefix ci- of class 7 together with the language name.

**P21 Ciyao [Yao; Kihiau]**

1/2; 1a/2a; 1b/2b; 3/4+9C; 5/6; 5a/6a; 7/8; 9+4C/10; 11/6; 11/10; 12/13; 14/6; 15; 16; 17; 18; INF:15; -DIM:12/13; +DIM:12/13; +AUG:3/4+9C,5/6; -AUG:5a/6a [XS70]

The extra source (Richardson 1967a) mentions no 11/6 pairing, and pairing 12/13 is claimed to contain not only diminutives but also other nouns (idem: 380); thus no support is given for Guthrie's claim of -DIM. It should perhaps be noted that the extra source itself relies on another source, Whiteley (1961), which I have not seen.

Moreover, the extra source gives no morphemic forms for the class prefixes, just a list of numbers, for which reason at least pairing 1b/2b could be questioned. It is probably based on a purely semantic classification. The same reasoning probably also applies to pairing 5a/6a. There is no evidence of any "curious" 2b or 6a prefixes in the prefix/concord summary table provided by Ngunga (1997: 166; not listed as extra source).

**P22 Mwera**

1/2; 3/4; 5/6; 7/8[i]+10C; 9/10[N]+8C; 14/6; 15; INF:15; AUG:5/6 [XS58]

**P23 Kimakonde [Shimakonde; Makonde]**

1/2; 3[N]+14C/4; 5/6; 7/8; 9/6; 9/10[diN]; 11/6; 11/10[di~diN]; 12/13; 14+3C; 15; 16; 17; 18; INF:15; -DIM:12/13 [XS67]

The extra source (Johnson 1922) makes no mention of 9/6, and pairing 11/6 is exemplified in the vocabulary part with "**lutawi**, pl. **ma-**" meaning 'branch' (idem: 456).

**P24 Ndonde [Kidonde; Mawanda; Kimawanda]**

There are basically no noun class data at all for this language, except that Johnston (1922: 4) gives the prefix ki- of class 7 together with the language name.





**P25 Maßiha**

1/2; 3/4; 5/6; 7/8[ßil; 9/10[diN]; 11/10[diN]; 12/13; 14; ~~14/6~~; 15; INF:15; -DIM:12/13

**P31 Emakhuwa [Makua]**

1/2; 1[mu]/6; 1a[ø]/2; 3+14=15=17C/4+8C=10C; 5[nil/6; 7+9C/8+4C=10C; 9+7C/10+4C=8C; ~~11~~; ~~12~~; ~~13~~; 14=15=17+3C/6; 16/18; 17=14=15+3C; 18; INF:14=15=17+3C; DIM:mwa/mwa~aci~aji [XS49/XS103]

Neither extra source (Woodward 1926; Prata 1960) employs BM numbers; thus they are my interpretations.

There are a number of inconsistencies between the various sources. I have mostly relied on the second extra source (Prata 1960) since that contains the most detailed data.

The class 8 prefix is given as a zero-morpheme by Guthrie (1971: 60). Kadima (1969: 52+118) gives both i- and ci-, as well as claiming a 8=10 merger. The merger is indirectly verified by the first extra source whose examples indicate a phonologically determined distribution for the prefix forms i- and chi- (see Woodward 1926: 274). However, the second extra source (Prata 1960: 49ff) consistently lists classes 8 and 10 separately but gives identical concords in all tables.

A 7=9 merger is claimed by Kadima (1969: 117), while Guthrie (1971: 60) gives different prefixes for these classes, i- for class 7 and iN- for class 9. The latter form is not verified by tables or examples in either extra source. Also the second extra source treats classes 7 and 9 separately, and provides the prefix forms e- and y- respectively (Prata 1960: 65ff). He does, however, provide identical concords.

Kadima (1969: 112) also claims a 3=15 merger, which is contradicted by examples provided in the extra source (Woodward 1926: 273ff) and also by data given by Guthrie (1971: 60), the latter supporting only the 14=15 part. The second extra source's many lists of concords, however, verify a near-merger between classes 3 and the merged class 14=15=17.

Diminutives are constructed with the prefix mwa- in singular as well as plural, with the optional plural prefixes aci- and aji- (Kadima 1969: 179).

**P32 Lomwe**

1/2; 3+14=15C/4; 5/6; 7=9/8=10; 9=7/10=8; ~~11~~; ~~12~~; ~~13~~; 14=15+3C/6; 15=14+3C; INF:15; DIM:mwa/asi

Diminutives are formed with the prefixes mwa- in singular and asi- in plural (Kadima 1969: 179).

**P34 Cuabo [Icuabω]**

There are basically no noun class data at all for this language, except that Johnston (1922: 5) gives the prefix i- together with the language name. It is possibly a merger of classes 7 and 9. Compare with other P30 languages.

**R11 Umbundu [Nano]**

1/2=6; 3=14/4=8[oßil+10C; 3=14/6=2; 5/6=2; 5/10[oloN]+4=8C; 7/8=4[oßil+10C; 9/10[oloN]+4=8C; 11/10[oloN]+4=8C; 12/13; 14=3/4=8+10C; 14=3/6=2; 15/6=2; INF:15; +DIM:12/13; AUG:7/8=4+10C

**"** **Umbundu**

1/2; 3=14/4=8+10C; 3=14/6; 5/6; 7/4=8+10C; 9/10+4=8C; 11/6; 11/10; 12/13; 14=3/4=8+10C; 14=3/6; 15/6; 16; 17; 18; INF:15; +DIM:12/13; +AUG:7/4=8+10C [XS16]

Guthrie's (1971: 60) claimed 2=6 merger (see preceding entry), which is also supported by Kadima (1969: 109f), is explicitly contradicted by information provided by the extra source (Schadeberg 1990: 15 et passim). They probably deal with different dialects.

The extra source makes no mention of any existing class 14, lending support to Kadima's (1969: 85) claimed merger 3=14.

Moreover, Guthrie's claimed 5/10 pairing (see preceding entry) is not mentioned by the extra source.

**"** **Umbundu [Baïloundou]**

1/2; 3/4=8[ovi]; 5/6[ova]; 7/8=4[ovi]; 9[on]/10[o~olo]; 11/10[o]; 12/13; 14; 15/6[ova] [XS88]

Concords for classes 8(=4) and 10 seem to be identical (see Homburger 1925: 129). See also preceding entries.

**R13** **Nyaneka [ɷlunyaneka]**

1/2; 3/4+8C; 5/6; 7/8+4C; 9[on]/10[ono]; 11/6; ~~12/13~~; 12/14; 13/6; 14/6; 15/6; INF:15; DIM:12/14 [XS88]

The extra source (Homburger 1925) uses no BM numbers; thus they are my interpretations. Putative pairing 13/6 is not mentioned.

**R14** **Nkumbi [Luñkumbi]**

1/2; 3/4+8C; 5/6; 7/8+4C; 9/10; 11/6; 12/6; ~~12/13~~; 12/14; 14/6; 15; INF:15; DIM:12/14

**R21** **Oshikwanyama [Kwanyama]**

1/2; 3/4; 5/6; 7/8; 9/10; 11/6; 11/10; 12/14; ~~13~~; 14/6; 15/6; INF:15; +DIM:12/14

**"** **Oshikwanyama [Kwanyama]**

1/2[ova]; 1a/2b[oo]; 3/4+10C; 5/6; 7/8+9C; 9+8C/10+4C; 11/6; 11/10+4C; 12/14; ~~13~~; 14; 15/6; 16; 17; 18; INF:15; +DIM:12/14; +AUG:5/6 [XS17]

I have re-labelled the plural of class 1a as "2b" instead of "2a", due to the presence of an o-like vowel.

**R22** **Oshindonga [Ndonga]**

1/2[aa]; 1a/2b[oo]; 3/4+10C; 5/6; 7/8; 9[o]/10[oo]+4C; 11/6; 11/10[oo]+4C; 11/13; 12/14; 14/6; 15/6; 16; 17; 18; INF:15; +DIM:12/14,11/6; +AUG:5/6 [XS40/XS61]

Presumably Kadima's (1969: 93) claimed 11/13 pairing is a misinterpretation of pairing 11/10; that is, he has possibly misjudged the class 10 prefix oo- as a class 13 prefix.

Also, I have re-labelled the plural of class 1a as "2b" instead of "2a", due to the presence of an o-like vowel.





**R23** **Oshikwambi [Kwambi]**

1/2; 3/4; 5/6; 7/8; 9[on]/10[o~e~ono]; 11/10[e]; 12/14; 14; 15/6 [XS88]

The extra source (Homburger 1925) uses no BM numbers; thus they are my interpretations. Moreover, concords for classes 4 and 10 are both based on ∂i, though not identical (idem: 129).

As with the other R20 languages, here too I have re-labelled the plural of class 1a as "2b" instead of "2a", due to the presence of an o-like vowel.

**R25** **Oshimbalanhu [Mbalanhu]**

1/2; 1a/2b[oo]; 3/4; 5/6; 7/8; 9[eN]/10[ooN]; 11; 12/14; 14; 15; 16; 17; 18; INF:15? [XS51]

Guthrie has no code for Oshimbalanhu, so I have given it the ad hoc code R25.

**R31** **Otjiherero [Herero; Damara]**

1/2; 3/4+8C; 5/6; 7/8+4C; 9/10; 11/10; 11/13; ~~12/13~~; 12/14; 14/6; 15/6; INF:15; +DIM:12/14

The name "Damara" is an erroneous usage sometimes encountered in pre-twentieth century literature.

**"** **Otjiherero [Herero]**

1/2[ova]; 1a/2b[oo]; 3/4+8C; 5/6; 7/8+4C; 9/10; 11/10; 11/13; 12/14; 14/6; 15[oku]/6[oma]; 15[oku]/omaku; 16; 17; 18; INF:15; +DIM:12/14; +AUG:7/8+4C [XS18/XS109]

Neither extra source (Booysen 1982; Viljoen & Kamupingene 1983) uses no BM numbers; thus they are my interpretations. The plural of 15 given as "omaku" above is described as "6.20" by Ohly (1984: 16; not listed as extra source). I find no reason to agree with this interpretation. Instead the plural construction can be seen as a composite prefix of plural 6 **oma-** superposed on the singular 15 **oku-** minus preprefix (or augment) **o-**.

Furthermore, due to the presence of an o-like vowel in the plural of class 1a, I have re-labeled it "2b" instead of the usual "2a".

**R41** **Siyeyi [Yeei; Kuba]**

1/2; 3/4; 5/6; 7/8[zi] -> 7/10[zi]; 9/10[ziN]; 11/4; 11/6; 11/10; 12/13; 14/4; 15/6; INF:15 [XS58]

The extra source's (Cole 1967: 130f) claim of a 7/10 pairing instead of 7/8 seems not to be supported (see entries below).

**"** **Siyeyi (Caprivi) [Yeyi]**

1[mú]/2; 1a[ù]/2a; 1a[ù]/6; 1a[ù]/8[zì]; 1a[ù]/10[zìN]; 3/4; 3/6; 5/6; 7/8[zì]; 9[ìN]/10[zìN]; 9a[ì]/6; 9a[ì]/10[zìN]; 10[zìN]; 11/6; 11/8; 11/10[zìN]; 12/13; 14/6; 14/8; 15/4; 15/6; 16; 17; 18 [XS44]

The list of class pairings derives from the many examples used by the extra source (Gowlett 1992). There are no examples of Guthrie's (1971: 61) claimed 11/4 and 14/4 pairings.

The extra source exemplifies the following singular class 10 nouns: **zìnshòzí/shwèzí** 'tear (from eye)', **zìnshwèní** 'shame, shyness' and **zìndédzù** 'beard' (Gowlett 1992: 161ff).

**"** **Siyeyi (Ngamiland)**

1[mù]/2[wà]; 1a[ù]/2[wà]; 1a[ù]/2a[ìmbà]; 1a[ù]/6; 1a[ù]/10[zi]; 3/4; 3/6; 3/10[ziN]; 3/13; 5/6; 5/10[ziN]; 7/4; 7/6; 7/8[zi]; 7/10; 9/2; 9/2a[ìmbà]; 9/6; 9/10[ziN]; 9/12; 11/3; 11/10; 11/4; 11/6; 12/6; 12/10[zi(N)]; 12/13[tù~tì]; 13/6; 14/2; 14/3; 14/6; 14/9; 14/10; 15/6; 15/10; INF:15; DIM:12/13 [XS81/XS100]

Guthrie's (1971: 61) claimed 14/4 pairing is not verified by any of the extra sources (Sommer 1995: 328f; Sommer & Vossen 1992).
Cole (1967; see first Siyeyi entry above) claims that the pairing 7/8 should be interpreted as 7/10. Classes 8 and 10 are very similar, but differ with respect to their verbal concords (see Sommer 1995: 371).

**(S10) Chishona [Shona]**

1/2; 3/4; 5/6; 7/8; 9/10; 11/6; 12; 14/6; 15; ~~19/13~~; 19/14; 21/6; INF:15; AUG:5/6,7/8,21/6

The S10-coding covers Zezuru (S12), Manyika (S13), Karanga (S16), Ndau (S15) and Ikalanga (S16). Thus the coding S10 has not been given a map entry point of its own. All data given here occur in the dialects below or else are discussed in the main text.

**S12 Zezuru**

1/2[(a)va]; 1a[ø]/2a[vádzi~vá~a]; 1a[ø]/6[madzi]; 3/4; 3/6; 5/6; 7/8; 9/10[N]; 11/6; 11/10[N]; 12/13; 14; 15=17; 16; 17=15; 18; INF:15=17; -DIM:12/13; +AUG:5/6 [XS35/XS106]

The plural of class 1a comes in three forms. One contains a composite prefix **vádzi-** consisting of the regular 2a prefix added onto a class 10 prefix; this is the regular plural form. Two other plural prefixes, **vá-** and **a-**, are used honorifically (Fortune 1955: 63ff).
Pairing 3/6 is only used for secondary classification, indicating 'monstrosity'. "It does not seem to be widely used" (idem: 72).
All morphological elements given for classes 15 and 17 are identical, prefix and all (Fortune 1957: 173).

**S13 Manyika [Chimanyika]**

1/2; 3/4; 5/6; 5a; 7/8; 9/10; 11/6; 11/10; 12/13; 14/6; 15; INF:15; -DIM:12/13

**"** **Teße [Citeve]**

There are basically no noun class data at all for this language, except that Johnston (1922: 5) gives the prefix **ci-** of class 7 together with the language name.

**S14 Karanga [Chikaranga]**

1/2; 3/4; 5/6; 7/8; 9/10; ~~12~~; ~~13~~; 12/13; 14/6; 15; 16; 17; 18; 19[ʃì]/14; 21+5C; INF:15; DIM:12/13; -DIM:19[ʃì]/14 [XS64/XS79]





Guthrie (1971: 62) explicitly denies the existence of both classes 12 and 13, while both extra sources (Meinhof 1948: 50; Hannan 1981: x) accept 12/13 as a valid pairing.

**S15 Ndau [Cindau; Sofala]**

There are basically no noun class data at all for this language, except that Johnston (1922: 5) gives the prefix **ci-** of class 7 together with the language name.

**S16 Ikalanga [Kalanga]**

1/2; 1a/2a; 3/4; 5/6; 7/8; 9[iN]/10[idziN~ijiN]; 11; 14; 15; 16; 17; 18; 20/8; 21+5C/6; INF:15; DIM:20/8; AUG:21+5C/6 [XS54]

**"** **Ikalanga [Kalanga]**

1/2[(a)ßa]; 1a/2b[ßo]; 3/4; 5/6; 5/9; 5/14; 7/2; 7/8; 9/6; 9/8; 9[N]/10[N]; 11/6; ~~12~~; ~~13~~; 14; 15=17; 15/6; 16; 17=15; 18; 20; 21; INF:15=17 [XS2/XS55]

The pairings derive mainly from the first extra source (Vossen 1991/1992), some of which are "unregular class pairings" found in the Ngamiland dialect.

**S21 Tshivenda [Venda; Luvenda]**

1/2; 3/4; 5/6; 7/8; 9/6; 9/10; 11/4; 11/6; 11/10; 11/14; ~~12~~; ~~13~~; 14/6; 15; k'u/8 -> 20/8; INF:15; -DIM:k'u/8; DIM:7/8

Neither Guthrie (1971: 62) nor any of the extra sources (Poulos 1990; Ziervogel et al. 1981) supports Kadima's (1969: 93) claimed pairing 11/4. (Contrary to practically all other pairings claimed by Kadima, this one is provided with a bibliographical reference, "Ziervogel p.102", but there is no such entry listed in his bibliography.)

**"** **Tshivenda [Venda]**

1/2[vha]; 1/4; 1/6; 1a[ø]/2b[vho]; 3/4; 5/6; 7/8; 9/4; 9/6; 9/10; 11/6; 11/10; 11/14; 14/6; 15; 16+17C=18C; 17+16C=18C; 18+16C=17C; 20/6; 20/8; 21+5C/6; INF:15; +DIM:7/8,11/14; -DIM:20/8,suffixes; +AUG:5/6; -AUG:21+5C/6 [XS20/XS62]

The first extra source gives two separate sets of concords for classes 16, 17 and 18: one for class 16 and another one for classes 17 and 18. However, he adds that "[c]lass 16 may also use the forms of classes 17 and 18; similarly classes 17 and 18 may use the forms of class 16" (Poulos 1990: 118, note 2).

**S31 Setswana [Tswana]**

1/2[ba]; 1a/2b[bô]; 3/4; 3/6; 5/6; 7/10[di]; 9/6; 9/10[diN]; 11/10[diN]; ~~12~~; ~~13~~; 14/6; 15; 16; 17; 18; INF:15; DIM/AUG:suffixes [XS29]

I have re-labelled the plural of class 1a as "2b" instead of "2a", due to the o-like vowel.
Kadima (1969: 118) claims a near-merger 8C=10C, but I have opted to interpret the plural of class 7 as that of 10 instead of 8 (following Cole 1967). Possibly an 8=10 merger would have been more appropriate.
Classes 15, 16, 17 and 18 share many similarities. They have

different noun prefixes but use concords that are very similar, though distinctions can be found among the demonstratives (Cole 1955/1975: 129ff) and optionally also in other constructions (idem: 138ff+171ff).

**S31d Sekgalagadi [Kgalagadi]**

1/2[ßa]; 1a/2b[ßo]; 3/4; 5/6; 7/8[bî]; 9/10[rîN]; 11; 14; 15; 16+17C=18C; 17+16C=18C; 18+16C=17C; INF:15 [XS55]

The extra source (Doke 1954: 244) gives only one concordial element for the locative classes 16, 17 and 18, namely, the possessive concord **xa-**, which is identical to the corresponding concordial element of class 15.

**" Sekgalagadi (Ngamiland) [Kgalagadi]**

1/2; 1a/2b; 3/4; 3/6; 3/14; 5/6; 5/10; 5/14; 7/6; 7/8[bi]; 7/10; 9/10[riN]; 9/14; 11; 14/6; 14/14; 15/6; 16; 17; 18; INF:15 [XS2]

The plural of the 14/14 pairing is formed by pre-prefixing a prefix of noun class 14 onto an already existing singular class 14 prefix; thus the pairing could also be written as "14/14.14" (see Vossen 1991/1992: 369).

**S32 Northern Sotho [Sepedi]**

1/2[ba]; 1a/2b[bô]; 3/4; 5=11/6; 7/10[di]; 9/6; 9/10[diN]; 11=5/6; ~~13~~; 14/6; 15; 16; 17; 18; INF:15; DIM/AUG:suffixes [XS15/XS60]

Kadima (1969: 118) claims a near-merger 8C=10C, but I have labelled the plural of class 7 as "10" instead of "8" (following Cole 1967).

**S33 Sesotho [Southern Sǫthǫ]**

1/2; 3/4; 5=11/6; 7/10a[dil; ~~8~~; 9/6; 9/10[øl; ~~11~~; 11=5; ~~12~~; ~~13~~; 14/6; 15; INF:15

Kadima (1969: 118) claims a near-merger 8C=10C, but I have labelled the plural of class 7 as "10" instead of "8" (following Cole 1967 and Guthrie 1971: 63; see also entries below).

Neither extra source (Guma 1971; Doke & Mofokeng 1957) below supports a 9/6 pairing.

**" Sesotho [Southern Sotho]**

1/2[ba]; 1a/2b[bo]; 3/4; 5/6; 5/10[liN]; 7/10[li]; 9/10[liN]; 14/6; 15; 16; 17; 18; INF:15; DIM:suffixes,7?; AUG:suffixes [XS14/XS110]

Locative classes 16 and 18 have lost all their concords (Guma 1971: 65f) while locative class 17 has retained only its subject and possessive concord. The noun prefixes are used as adverbializers.

Class 7 may be used for diminutiveness but only "more rarely", at least according to the second extra source (Canonici 1993: 102). The first extra source (Guma 1971: 52ff+71f) makes no mention of it so presumably it is rare.

**S39 Pai**

1/2[ba]; 1a/2b[bo]; 3/4; 5/6; 7/8[ßji]+14C; 9/10[tiN]; 11; 14[ßu~ßji]+8C; 15=17; 16; 17=15; 18; INF:15=17; DIM:suffixes [XS55]

Guthrie has no coding for Pai, so I have given it the ad hoc code S39.

7/8 = claimed by Guthrie, 7/8 = claimed by Kadima, 7/8 = claimed by extra source



The extra source (Doke 1954: 246) gives identical concords for the locative classes 16, 17 and 18, except for the possessive concordial elements which are different.

**S41 Isixhosa [Xhosa; Kafir]**

1/2; 3/4; 5/6; 7/10a[izil; ~~8~~; 9/6; 9/10[iiN]; 11/10[iiN]; ~~13~~; 14; 14/10; 15; INF:15

**" Isixhosa [Xhosa]**

1[um]/2[aba]; 1a[u]/2b[o]; 3/4+9C; 5/6; 7/10[ii~izi]; 9+4C/6; 9+4C/10[iiN~iziN]; 11/6; 11/10[iiN~iziN]; 14; 15; 16; 17[ku]; 17a[uku]; e -> 23?; INF:15; DIM/AUG:suffixes [XS38/XS36]

Neither extra source (Louw 1978; McLaren 1963) supports Kadima's (1969: 95) claim of a 14/10 pairing. It seems likely that he has misinterpreted the class 11 prefix which can appear as both **ulu-** and **u-**; the class 14 prefix appears as **ubu-** (see McLaren 1963: xiii).

**S42 Isizulu [Zulu]**

1/2[aba]; 1/4; 1/6; 1a[u]/2b[oo~awo]; 3/4; 5/6; 7/10[izi]; 9/6; 9[iN]/10[iziN]; 11/10[iziN]; ~~13~~; 14; 15=17; 16; 17=15; e -> 23?; INF:15=17; DIM/AUG:suffixes [XS43]

Kadima (1969: 118) claims a near-merger 8C=10C, but (following Cole 1967) I have labelled the plural of class 7 as "10" instead of "8".

**S43 Siswati [Swati]**

1[umu]/2[ba~be]; 1a[ø~u]/2b[bo]; 3/4; 5/6; 7/10[ti]; 9[iN]/6; 9[iN]/10[tiN]; 9a[i]/6; 11/6; 11/10[tiN]; ~~13~~; 14; 15; 16; 17; 18; e -> 23?; INF:15; DIM/AUG:suffixes [XS37/XS59]

**S44 Sindebele [Ndebele]**

1/2[aba]; 1a[u]/2b[o]; 3/4; 5/6; 7/10[izi]; 9/6; 9/10[iziN]; 11/10[iziN]; 14; 15; 17[ku~ko]; e -> 23?; INF:15; DIM:suffixes [XS31/XS97]

The first extra source (O'Neil 1912) employs no BM numbers; thus they are my interpretations.

**S51 Xitshwa [Tswa]**

1/2[ba]; 1a/2[ba]; 3/4; 5/6; 7/8[ẑil; 9/10[tiN~tiyiN]; 11[li]/10a[til; ~~12~~; ~~13~~; 14/6; 15; 16; 17; 18; INF:15; DIM:suffixes [XS55]

The prefix form of class 8 is **ẑi-**, in which the initial consonant is a whistling fricative without lip friction.

The extra source (Doke 1954: 183f) makes no distinction between the plurals of classes 1 and 1a (neither prefix nor concords), although he labels them separately as "2" and "2a".

**S52 Xigwamba [Gwamba; Tekeza; Transvaal Tsonga]**

1/2[va~vava]; 1a/2a[(a)va]; 3/4; 5/6; 7/8; 9/10[tiN]; 11[ri]/10[ti]; 14/6; 15=17; 16; 17=15; 18; 21/6; INF:15=17; DIM:suffixes [XS52]

7/8 = claimed by Guthrie, 7/8 = claimed by Kadima, 7/8 = claimed by extra source

The extra source (Cuénod 1967: 5) uses the name "Tsonga", but says explicitly that his dictionary, and thus presumably also his grammatical outline preceding it, "is practically limited to the Tsonga spoken in Transvaal", which is Gwamba. Thus it is also referred to as "Transvaal Tsonga" by some.

Concords for the locative classes 16, 17=15 and 18 are identical except in their demonstrative series (idem: 9).

**S53 Xitsonga [Tsonga]**

1/2; 3/4; 5=11/6; 7/8; 9/10; 11=5; ~~13~~; 14/6; 15; 21/6; INF:15; DIM:7/8,suffixes; AUG:21/6 [XS94]

**S54 Xironga [Ronga]**

1/2[ba]; 1a/2[ba]; 3/4; 5/6; 7/8[ʃi]; 9/10[tiN]; 11[li]/10[tiN]; ~~13~~; 14/6; 15; 16; 17; 18; INF:15; DIM:suffixes,7/8; AUG:7/8 [XS55]

The extra source (Doke 1954: 183f) makes no formal distinction between the plurals of classes 1 and 1a, neither prefix nor concords, but still labels them separately as "2" and "2a" respectively. I have re-labelled the latter simply as "2".

Kadima (1969) gives pairing 7/8 as both diminutive (idem: 152) and augmentative (idem: 157). As regards the latter function, "quelques substantifs seulement admettent les préfixes augmentatifs cl.7,8" (idem).

**S61 Cicopi [Tchopi; Copi]**

1/2; 3/4; 5/6; 7[tʃi]/8[tsi]; 9/10[tiN]; 11/10[tiN]; ~~12~~; ~~13~~; 14/6; 15; INF:15 [XS33].

**" Cicopi [Chopi]**

1/2[ßa]; 1a/2[ßa]; 3/4; 5/6; 7[tʃ'i]/8[ts'i]; 9/10[t'iN]; 11; 14; 15=17; 16; 17=15; 18; INF:15=17 [XS55]

The extra source (Doke 1954: 183f) labels the plurals of classes 1 and 1a as "2" and "2a" respectively, but makes no formal distinctions between them; both prefix and concords are identical.

**S62 Gitonga [Tonga]**

1/2; 3/4; 5=11/6; 7/8+10C; 9/10+8C; 11=5; ~~13~~; 14/6; 15; INF:15

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7/8 = claimed by Guthrie, 7/8 = claimed by Kadima, 7/8 = claimed by extra source

# Supplementary section B

# Explanatory notes to the maps

Much of the data in the chapters of this thesis is presented in diagrammatic maps which are based on a similarly diagrammatic map originally devised and used by Malcolm Guthrie in his *Comparative Bantu* (1967b/1971; 1970). By necessity, however, Guthrie's original map has been slightly modified for the present thesis. This supplementary section aims chiefly to describe and explain these deviations.

## Simplifying and modifying Guthrie's map

In Guthrie's original map (see figure 125), there are several lines, numbers and letters. Double lines delineate language zones (coded A to S, save a few letters), thick single lines delineate language groups or "sub-zones" (coded with Arabic numerals in tens) and single broken lines delineate individual languages or language clusters (also coded with Arabic numerals). Since I have opted to use Guthrie's map to display various distributions, the amount of written information in the maps would quickly make them unreadable. Thus I have been forced to redraw and simplify the appearance of Guthrie's original map. I have first left out all information except that which is conveyed by his double lines, that is, the ones indicating language zones. To this cleaned-out map, I have added so-called map entry points (see figure 126). The map entry points represent my language sample. These are more or less equal to Guthrie's language codes, for instance, Isizulu is coded 'S42' in Guthrie's classification and is thus represented in the simplifed map by a map entry point labelled 'S42'. Data from Isizulu are then entered into the map where this map entry point is located. However, the system of map entry points does not equal Guthrie's code system exactly. This concerns in particular those sampled languages which are not classified by Guthrie (1971). The following paragraphs deal with these deviations.

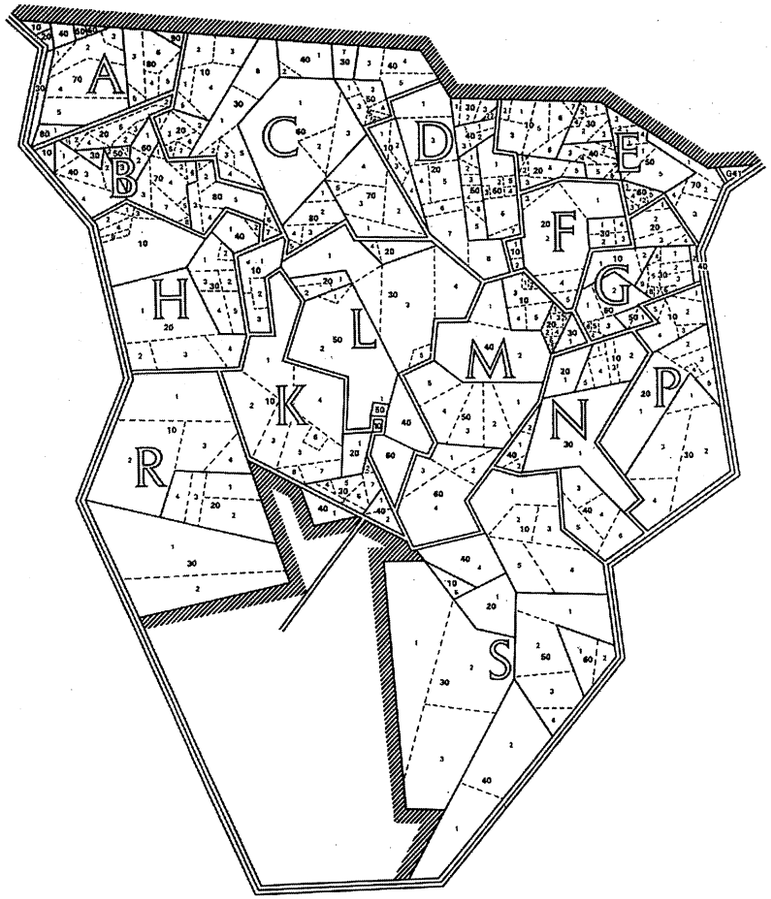



Figure 125 Guthrie's (1967b: 65) diagrammatic map of the Bantu area



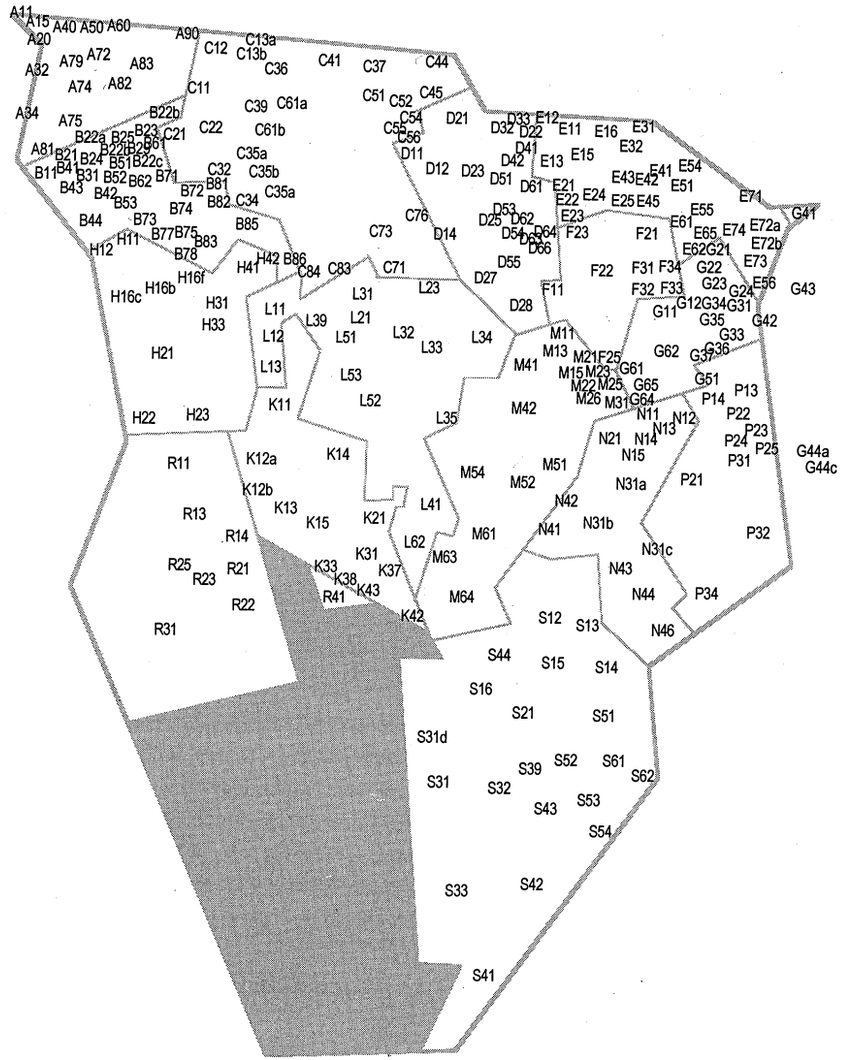



Figure 126 A simplified version of Guthrie's map used for data presentation

## Map entry points corresponding to additions to Guthrie's map

Some of the sampled languages not classified/coded by Guthrie (1971) have been given map entry points corresponding to codes suggested by other sources. An A70-coding is suggested for Bìsòò by Guarisma & Paulian (1986: 94), so I have coded it 'A79' here. Siɣu is discussed and classified with B20 languages by Jacquot (1983); thus it is coded 'B29' here. For similar reasons, Oshimbalanhu (Fourie 1993) and Pai (Doke 1954) are coded 'R25' and 'S39' respectively. Grimes (1996: 444) classifies Mabale in the Bangi-Ntumba group (= Guthrie's C30 group)[159] and Lwalu in the Luba group (L30), so I have coded them 'C39' and 'L39' respectively. The codes for Rugciriku and Thimbukushu, 'K38' and 'K43' respectively, derive from Möhlig (1983).

| | | | | | |
|---|---|---|---|---|---|
| **A79** | **Bìsòò** | G43 | Phemba | **L39** | **Lwalu** |
| A82 | So | G44a | Shingazidja | L53 | Ruund |
| **B29** | **Siɣu** | G44c | Shimaore | **R25** | **Oshimbalanhu** |
| **C39** | **Mabale** | K31 | Luyana | S31d | Sekgalagadi |
| C76 | Ombɔ | **K38** | **Rugciriku** | **S39** | **Pai** |
| E56 | Daiso | **K43** | **Thimbukushu** | S43 | Siswati |

Figure 127 Map entry points corresponding to additions to Guthrie's original map
Bold-printed languages are those that are not classified/coded at all by Guthrie (1971).

There are also a few languages that Guthrie (1971) does indeed classify and code, but which have not been given any location in his map; for instance, Shingazidja is classified/coded 'G44a' but does not appear in his map. Luyana, coded 'K31', is another such language. I have located all additions where deemed appropriate, and for that purpose I have used various sources, for instance, Grimes (1996) and Bryan (1956), both of which contain fairly detailed maps; but in most cases the language-specific sources have provided the necessary data for a proper coding.

## Map entry points corresponding to split areas in Guthrie's map

Some of the areas in Guthrie's original map indicating individual languages or language clusters (delineated with single broken lines) have been modified. In particular, they have been split when these represent several languages/dialects for which I have gathered data (though see on conflated map entry points below). For

[159] For some reason, the Bangi-Ntumba group is coded 'C40' by Grimes (1996: 444). I have ignored this and adopted Guthrie's C30-coding, which is the one used in his *Comparative Bantu*.



| | | | | | |
|---|---|---|---|---|---|
| **A10** | A11 | Londo | **C61** | C61a | North-eastern Mɔngɔ |
| | A15 | Manenguba | | C61b | Nkundo |
| **A30** | A32 | Banôho | **E72** | E72a | Giryama |
| | A34 | Bapuku | | E72b | Kauma |
| **B22** | B22a | Western Kɛlɛ | **H16** | H16b | Central Kikongo |
| | B22b | Northern Ngɔm | | H16c | Kiyombe |
| | B22b | Southern Ngɔm | | H16f | Laadi |
| | B22c | Pußi | | | |
| **C13** | C13a | Mbati | **K12** | K12a | Luimbi |
| | C13b | Ngando-Kota | | K12b | Ngangela |
| **C35** | C35a | Northern Ntomba | **N31** | N31a | Chinyanja |
| | C35a | Southern Ntomba | | N31b | Chichewa |
| | C35b | Bolia | | N31c | Manganja |

Figure 128 Map entry points corresponding to split areas in Guthrie's map
Guthrie's original codes are bold-printed and represent areas delineated with single lines in his map.

instance, the area corresponding to Guthrie's Nyanja cluster is represented in the modified map by three map entry points, namely, 'N31a' for Chinyanja, 'N31b' for Chichewa and 'N31c' for Manganja. Similarly, the area which in Guthrie's map corresponds to both Ntomba and Bolia, both of which are subsumed under the coding 'C35', is represented in the modified map by the map entry points 'C35a' for Northern and Southern Ntomba and 'C35b' Bolia. Note thus that 'C35a' has two locations in the modified map. (The same is true for 'B22b'.)

## Map entry points corresponding to several languages

Any given map entry point may refer to more than a single language/dialect. Such map entry points are here referred to as 'conflated map entry points'. These are convenient to use where the number of map entry points would render the maps unreadable. Thus for simple space reasons, the map entry point 'B25' is used for five language/dialects, namely, Kota, Sake, Mahɔngwe, Northern Ndasa and Southern Ndasa. Some of these conflated map entry points derive from Guthrie's own use of joint codes for several languages, like 'D33' which is used for both Nyali and Vanuma (as well as other named languages/dialects). Others derive from my lumping activities, the justifications for which I have sought in the main

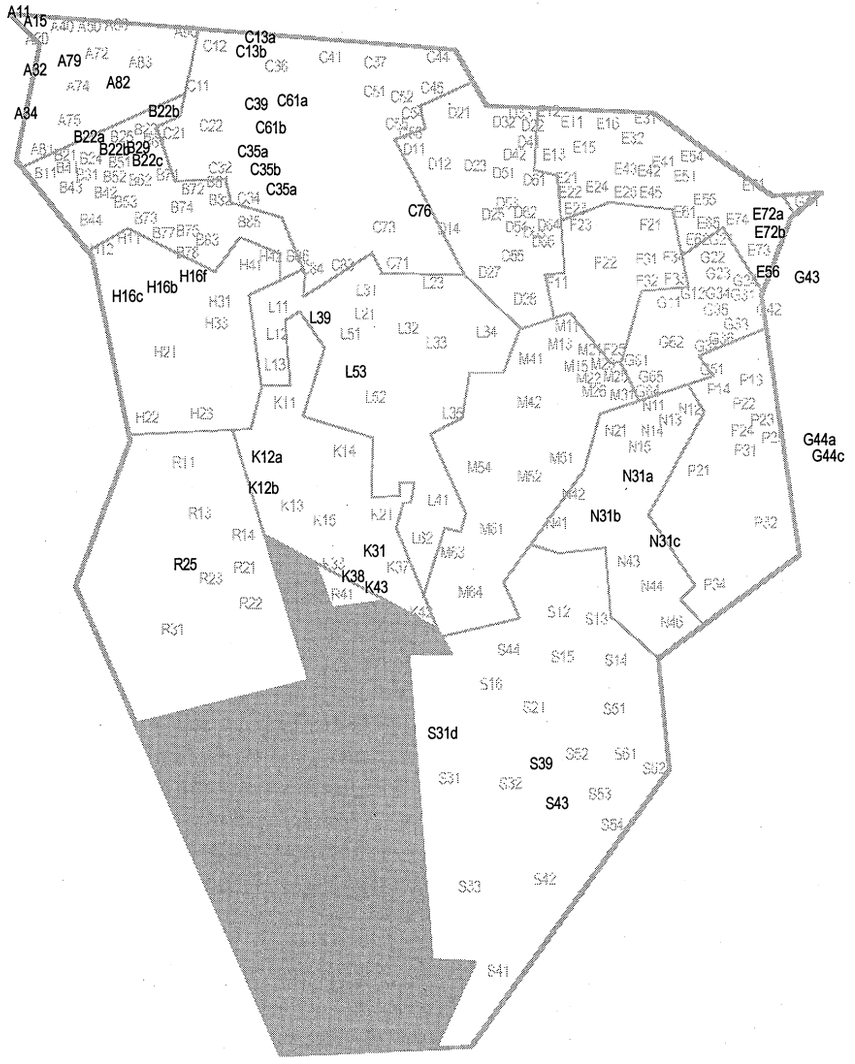



Figure 129 Map entry points that deviate from Guthrie's classification
The highlighted map entry points represent both additions and modifications.



sources used. Thus I have tied Xaayo and Isuxa to E32 (Hanga), Teri to E72 (Daßida and Sagala), Cimwiini and Bajuni to G41 (Tikuu), in accordance with, for instance, Tucker & Bryan (1957). Ndasa has been tied to B25 (which is the original code for Kota, and others) following Jacquot (1983: 73). Nùbàcâ, Nùgùnù and Nùkàlònè have been tied to A62, Tùkí to A64, and Lùndá and Àsém to A61, following codings suggested/used by Guarisma & Paulian (1986). Note that all A60 languages have been conflated a second time and are thus represented in the modified map as 'A60'. The map entry points 'A30', 'A50' and 'A90' are similarly doubly conflated. The full set of conflated map entry points can be deduced from the table in figure 20 in chapter 2.

### Sampled languages with no map entry points at all

There is a small group of languages which I have not been able to locate with any degree of reliability. These have not been given map entry points and data from these languages appear outside the maps proper. This group of potential map entry points comprises Ngwi (B60), Budya (C30), Northern and Southern Binja (C40), Konda (C60), Mbagani (L20) and Ndembo (L50). The western Bantu language Kituba has been given the ad hoc code 'H00'. I have not had any trouble locating it (for which see, for instance, Heine 1970). It has nevertheless been excluded from the maps, mainly because I found a reliable description of it too late for inclusion. None of the languages just mentioned contain any data that would have significantly altered any distributions. They are in any case not ignored in the main discussions.

## Mapping problems

Presenting distributions of any kind of data in map form involves a number of problems. Francis (1983: 110ff) offers a useful discussion of this subject specifically aimed at dialectologists, while Monmonier's (1996) brilliant book on the use and abuse of maps is highly recommended for any map-user. Here I will focus on two types of problems. Firstly, there is the choice of a base map and, secondly, there are problems of map symbolisation, which involves how to display the actual data on the base map; as text, lines, dots, shaded areas, or whatever.

To start with map symbolisation: I have ruled out area shading since area shading imposes certain undesirable problems of use as well as interpretation. Firstly, to use area shading would require more accurate data on language distributions than has been available to me. Linguistic borders and boundaries are not as self-evident as one might wish. We know in fact little of actual language

distributions in many areas. Moreover, linguistic-typological data presented in language descriptive materials are most often applicable only to single varieties of languages, in many cases standardised ones. Some even refer to single informants. Thus the data gathered for the sampled languages in the present study may not be applicable to whole areas of assumed language distributions. Therefore we have no straightforward way of plotting linguistic-typological distributions on maps, at least not as area shadings.

Another problem related to area shading is the simple fact that much of the data presented in the present study is fairly complex; that is, one and the same map shows several distributions at the same time. Thus the maps showing distributions of, for instance, plural classes (which comprise most of the maps in chapter 4) would require a large number of area shading types; add to this the fact that most of these distributions are overlapping (see also Francis 1983: 120f). One way of getting around this problem would be to split each map into several maps, but the sheer amount of maps that this would produce is an argument enough for not adopting this strategy. Another problem related to area shadings is that they are not as easy to read as one is led to believe, a problem that increases with the number of individual distributions shown on any given map. They are probably prettier, but shaded areas, be they graytone or colour with or without different types of texture (striped, dotted, and so on), require an extra layer of reading compared to maps that plot the relevant information directly onto the maps. Thus adding data about, say, the distribution of diminutive noun classes as "7/8", "12/13", "12/14" and so on, instead of using different shades of deep purple, makes the reading of the maps easier since the maps then require one less step of interpretation; that is, it is possible to read the geographical distribution as well as the typological content of the distribution simultaneously.

As for a base map, I have chosen a fairly crude diagrammatic map instead of one that would look more "natural" or "iconic"; that is, the kind of maps that we are familiar with in atlases of various kinds. In fact, there are at least two such "natural" maps of the Bantu area that appear fairly regularly in the literature. One is used by the Bantuists at Tervuren, Belgium, and appears in their journal *Africana Linguistica* (see, for instance, Bastin 1983). Another one has been constructed by Wilhelm Möhlig and Jürgen Christoph Winter and appears on and off in the journal *Sprache und Geschichte in Afrika*, chiefly (only?) in articles authored by the map compilers themselves (Möhlig 1979; 1981; Winter 1981). Both of these maps use a more "natural" kind of base-map onto which have been added borders indicating language boundaries. They seem, however, to be made for internal use only.

A third Bantu map (based on the just-mentioned Tervuren map) has been



compiled by John Lowe and Thilo Schadeberg, though I have not seen it in any publication yet. This map has the advantage of being freely distributed over the Internet in the form of a map-making program called the *Bantu MapMaker* (current version 3.1; for Macintosh only).[160] The Lowe-Schadeberg map could have been a good solution had I opted for a more "natural" map, and it certainly would if the data that I use had been less complex. However, besides working somewhat erratically (at least on my computer), the main disadvantage with it is that it does not allow you to choose your own symbolisation. Thus it is well nigh impossible to add information like "12/13" directly onto the Lowe-Schadeberg map. Instead a symbol such as, for instance, "✖" or an area shading has to be used.

One very good practical reason in my view for not using a more "natural" map is that diagrammatic maps are easier to (re)produce, since they can easily be made with the graphics utility inherent in most word-processors. Therefore they keep your documents smaller than they would otherwise be had you imported proper graphic files, and the maps (the entire documents in fact) are thus easier and quicker to manipulate.

Moreover, and perhaps more importantly, a "natural" map might give the false impression of showing actual distributions since it looks more true to reality, in some sense, than a diagrammatic map does. Yet, a diagrammatic map says all there is to say, and need only be interpreted as an iconically organized table. Its explicitly "non-natural" look makes the map reader aware of the shaky relation between map and reality. Besides, "natural" maps are hardly devoid of interpretative problems. They lie as much or as little as any type of map would do, for a number of good/bad reasons.[161] What I am basically saying here is that the diagrammatic maps used in the present study should be seen as somewhat akin to the subway maps used in London, New York and elsewhere, that is, not as perfectly iconic matches with reality but sufficiently so in order to be useful.

[160] Available at URL = http://bantu.berkeley.edu/CBOLD.html

[161] Monmonier (1996) provides an illuminating discussion of how to use and interpret maps. "Not only is it easy to lie with maps, it's essential. To portray meaningful relationships for a complex, three-dimensional world on a flat sheet of paper or a video screen, a map must distort reality. As a scale model, the map must use symbols that almost always are proportionally much bigger or thicker than the features they represent. To avoid hiding critical information in a fog of detail, the map must offer a selective, incomplete view of reality. There's no escape from the cartographic paradox: to present a useful and truthful picture, an accurate map must tell white lies" (idem: 1).

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# Indexes

There are two indexes: one for personal names, and one for languages and other linguistic units. The word 'Bantu' has not been indexed. For technical reasons, many diacritics have been omitted from the index.

Note also the following:

| | | |
|---|---|---|
| < ß > | is alphabetized as | < b > |
| < ʃ > | is alphabetized as | < s > |
| < ʂ > | is alphabetized as | < s > |
| < ɣ > | is alphabetized as | < g > |
| < χ > | is alphabetized as | < x > |
| < ω > | is alphabetized as | < o > |
| < ɔ > | is alphabetized as | < o > |
| < ɛ > | is alphabetized as | < e > |

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