# THE CLASSIFICATION OF THE 

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## CHAPTER I

## INTRODUCTION

The latter half of the nineteenth century saw the end of most of the great exploratory journeys into that part of Africa which lies to the south of the Equator. The expansion of missionary work which followed on the opening up of the previously unknown areas during this period gave rise to intense interest in the languages of the newly discovered peoples. This resulted in the production of a surprising number of dictionaries and grammars describing the various languages which were found.

As early as 1862 Bleek drew the attention of scholars to the fact that there was a startling family resemblance between widely separated languages in this area. When more grammars became available it became evident that the Bantu family was indeed a very large one. Moreover, its peculiar characteristics have been of considerable interest to linguistic students in other fields. Up to this time not a few of the languages have been fairly completely documented, while one or two have received special attention. 'This is particularly so in the case of the work of Doke on Zulu, and of Laman on Kongo, to mention only two cases in which such studies have reached a high level.

Nevertheless, there are still two things to be done in this field. No satisfactory method of classification has yet been developed for this great number of clearly related languages. In addition there is still no work of reference from which rescarch workers may know where are the principal gaps in our knowledge. The recently published bibliography of Bantu by Doke has given us a very useful book, in which is set out in considerable detail an account of the works so far published on the various members of the Bantu family of languages. As part of the framework of his monograph Doke used a broad classification based on certain features chosen for the purpose. What he did not do, because it would have been outside the scope of the work, was to give us any complete picture of what is known about the whole family, or to make any reference to the many languages which have no documentation. To achieve this it is necessary to survey the whole field in a different way, and that is what this present work sets out to do.

The aim of this monograph then is twofold. It is intended first of all to establish some framework which may serve for future reference in identifying and classifying Bantu languages. Then in the second place, as an important by-product, it will throw into prominence the places where our knowledge is fragmentary or even non-existent.

The important thing to bear in mind when consulting this work is that the classification is essentially tentative. In a few areas, where our data are reasonably adequate, the grouping may lay claim to a certain amount of finality. In many cases, however, where whole sets of languages are known chiefly as names only, the classification is necessarily experimental, and must not be taken as authoritative in any way.

In some cases the conclusion reached from fragmentary data will probably be found to be only partially correct. It is hoped, however, that the publication of this tentative work will stimulate any who are in a position to do so to contribute more complete information on the subject. In other cases little-known languages have been grouped together because a supposed relationship has been asserted by some earlier writer.

It may well be that those who have direct contact with these languages possess data which show that such grouping is unjustified. Here, too, the co-operation of such workers will be appreciated, since it is desirable that in any subsequent edition the needful revisions should be made. In this way the setting out of all that can be known from the available data, however inconclusive, will have served its purpose.

## The Plan of the Work

There are four principal parts to this study. In the first we shall investigate the questions arising out of the use of the term Bantu. Among other things this involves establishing and illustrating the criteria to be used in identifying languages as members of the Bantu family. The following chapter is then devoted to a discussion of the various aspects of the problems of classification. Chief among these is the method to be adopted in attempting to classify the Bantu languages. Then in Chapter IV the technique which has been described is applied, and its results shown in the form of a series of descriptive classifications of each of the principal areas in turn. Finally there is a map, together with a key in the form of a complete list of the languages classified in their groups.

One difficulty that had to be faced arose from the fact that some languages have been called by more than one name. This has been dealt with in two ways. In general the name accepted as correct is that used by the speakers of a language to refer to it. Where the name has a class prefix, the usual practice is followed of omitting this prefix, and where, as in the case of MWADGA (known as iciinamwanga), the name is preceded by the word iciina 'the language of the people of', this is naturally not used. The element -nya- which occurs in some names, e.g. NYADKOLE (called olunyaŋkole), is retained, since its meaning is obscure, and sometimes it has become universally recognized as part of the word, e.g. it would be of small value to call NYAMWESİ by the shortened form MWESI. In the full list of languages accompanying the map, the other names which have been used for a given language are placed in parentheses, and then at the end of the work there is an alphabetical index to all the names. It would clearly have been neither practicable nor useful to give all the spelling variants of certain names, so a peculiar spelling is only noted if it alters the position of the word in the index.

In the fourth chapter a system of numeration is developed by means of which any language may be referred to by a letter and two figures. Since this also nables any language to be found on the map, the numbering is given in parentheses after the name, each time a language is mentioned, even before the significance of the numeration has been explained.

## Orthography

In any study of the Bantu languages in general the problem of orthography becomes very difficult. It is clear that the considerations governing the designing of a practical orthography do not necessarily operate in this case. On the other hand, to use any system of spelling that did not conform in most respects to the orthography based on the 'Africa' alphabet would be unsatisfactory, while to depart too much from the conventional spelling of important languages would in itself reduce the usefulness of the work.

One of the biggest difficulties in a general study of the Bantu languages arises
from the existence of five-vowel languages side by side with the seven-vowel languages. On the one hand it would be misleading to represent identical pronunciation differently in different languages, but on the other the spelling of one language can hardly be determined by the characteristics of its neighbours. Fortunately the most scrious aspect of this problem has been overcome by the recent development of the 'Africa' alphabet to include a system of nine vowel characters. This has meant that the two new characters $\dot{j}$ and $\boldsymbol{\mu}$ could be used for the extra close vowels of the seven-vowel languages. As a result of this, those who only know the traditional five-vowel symbol system in the seven-vowel languages of East Africa will easily recognize the spelling, as will those who have no acquaintance with other than five-vowel languages. For the seven-vowel languages of the north and north-west, however, the spelling of the words has had to be adapted. There can be little doubt that the seven vowel characters of the original 'Africa' alphabet are the most suitable for any practical orthography of these languages, but clearly in a work which covers the whole of the Bantu field consistency must mean slight inconvenience in certain cases. Anyone using this work who has been accustomed to the open vowel characters will therefore have to interpret the spelling in this way: $\mathrm{i}=\mathbf{i}, \mathbf{i}=\mathbf{e}, \mathrm{e}=\varepsilon, \boldsymbol{\mu}=\mathbf{u}, \mathbf{u}=\mathbf{o}, \mathbf{o}=\mathbf{0}$. It must be emphasized, however, that the use of the new letters implies no suggestion that they would be suitable for general use in these particular languages. As already stated, it seems reasonably certain that the use of the two open vowel characters is the most satisfactory thing for them.

Another problem in a work of this kind is how to write fricative consonants. It would not be practicable to use the special symbol in every case, especially as it frequently happens that the exact nature of the articulation is unimportant. For example, in BEMBA (M.42a) there is only one voiced bilabial consonant, and the fact that it is fricative in a word like abantu 'people' would in no sense justify the use of a special character. When we come to other languages, however, such as MBUNDU (R.ir), there is the difficulty that an identical sound, which has an almost identical value in the language, is written ' $v$ ', e.g. ovandu 'people'. Such a spelling could not be used in this work, but in view of its existence there does arise the necessity for indicating that the sound in such words is a simple fricative bilabial. Purely as an expedient for our present purpose, therefore, and in no way supporting the undesirable practice of using such diacritics in current orthographies, any sound which is known to be fricaive will be represented by the character for the plosive underlined, e.g. $\underline{\mathbf{b}}=\beta$ ( $\mathbf{v}$ in the 'Africa' alphabet), $\underline{\mathbf{p}}=\phi$ ( $\mathbf{f}$ in the 'Africa' alphabet), $\underline{\mathbf{k}}=\mathbf{x}, \underline{g}=\mathbf{\gamma}$.

The symbols $\mathbf{c}$ and $\mathbf{j}$ have been used consistently throughout to represent either palatal plosives or simple affricates of the type $\mathrm{t} \int$, dz. Although this involves the use of the same character for quite different sounds, the fact is that in many cases we do not really know which of the two sounds occurs, and so it is convenient not to have to distinguish them in the spelling.

In the case of $\int$ and 3 the problem is somewhat similar, except that here we do not know whether these sounds are essentially distinct from $\mathbf{s}$ and z respectively. To use the phonetic symbols for them would frequently mean introducing an extra character unnecessarily, and would also obscure the relationship between words in different languages. For this reason the symbols $s$ and $z$ have been adopted, since they will also cover the possibility of other palatalized fricatives such as $\varepsilon$ and $z_{c}$.

The usual method of representing dental sounds presents several problems, and on the whole seems unsatisfactory for our present purpose. As a tentative measure, then, the fact that a sound has a dental pronunciation will be shown by the placing of a cedilla beneath it. This means that $\theta$ can be written $s$, and in some cases this is most useful, especially where words with $\theta$ in some languages appear with $s$ in others. Where $\theta$ is not related to an $s$ in other languages, as in KELE (A.73) the phonetic symbol is retained for the dental fricative, but only in these cases.

The character $\eta$ for the velar nasal is required in the case of a number of languages, such as FAD (A.66), where it represents a sound that has to be distinguished from 1 g . For this reason it has been used throughout as the nasal in compounds with velar consonants, even in those languages where to do so in a practical orthography would be an unnecessary complication. This is simply because it is desirable that similar words should be spelt identically in different languages in a study of this kind.

The question of word-division hardly enters into the scope of this present work. It must be pointed out, however, that the grammatical system which is presupposed throughout the work demands what would be called a 'conjunctive' system of writing. Consequently in none of the examples cited is any regard paid to the current practice of word-division in force in the language in question. This is not to be interpreted as any premature pronouncement on the matter, where a language happens to be written more or less disjunctively, but merely as an attempt to achieve grammatical consistency.

## Data

Much of the information needed for this study has had to be derived from observations made by other people. Inevitably this means that the reliability of the data collected in such a way is extremely variable. In some cases, too, further research may show that certain conclusions are invalid through their having been based on statements that were misleading rather than incorrect. Such, however, are the limitations due to the inadequacy of our present knowledge of the Bantu field.

In some respects, however, the present work may claim to have a certain distinctiveness, since I have been fortunate enough to be able to gather a very large proportion of the data at first hand. It so happens that the only area where I have had no personal contact with any of the languages is the one I call Zone A. Everything said about the languages of this region therefore has had to be taken from the work of others and is of indeterminate reliability. In much of Zone $T$ also are languages concerning which I have had to rely on what others have told me or have stated in their published works. The net result of this is that of the languages illustrated in the chapter dealing with criteria the only ones I have not personally studied on the field are FAD (A.66) and RODGA (T.24), while in the chapter on differentia every example given has either been obtained from or verified by native speakers of the language in question.

The map at the end suffers from the same disabilities as the rest of the work. Every effort has been made to check all the available data in order to fix the geographical limits of each language, but our knowledge is extremely patchy. Some areas, such as Southern Rhodesia, which has been accurately surveyed by Doke, are well known, but others such as the Portuguese colonies still need much research before we can be sure that our linguistic maps are reliable. Taking it over all the map is probably about 50 per cent. accurate, a figure which is almost certainly higher than that for any existing map.

## CHAPTER II

## IDENTIFYING THE BANTU LANGUAGES

Before the problem of classification can be discussed, it is clearly necessary to determine what is meant by the term Bantu. Fortunately from the time this name was first introduced it has chiefly been applied to linguistic rather than to ethnological facts. This makes it quite suitable for our present purpose, and justifies our attempting to define it linguistically.

It is to Bleek that we owe the term, which he spelt Ba-ntu in the first part of his Comparative Grammar. When he produced the second part of this work seven years later in 1869 , he dropped the hyphen, but still retained the accent, apparently because he considered that this was necessary for the correct orthography of Xhosa, from which language he adopted the term. From that time this name has become accepted for this remarkable family of languages spoken over much of central and southern Africa.

It is interesting to reflect that Bleek did not attempt any close definition of the term Bantu, contenting himself with what he termed the 'main distinctive features' of the languages. All he did in fact was to point out that the specific languages he was examining had certain features in common, which were, to quote his words (the italics being his), 'a concord of the pronouns and of every part of speech, in the formation of which pronouns are employed (e.g. adjectives and verbs) with the nouns to which they respectively refer, and the hereby caused distribution of the nouns into classes or genders'. Had he continued to study this family he would no doubt have given us some criteria by means of which the languages belonging to it might be distinguished from others which do not. In his day, however, there was not enough known about the languages of central Africa to make this a pressing problem.

Subsequent writers have been principally concerned with typical features rather than with true criteria. The consequence of this is that few if any of them have defined what they mean when they say that a given language is Bantu. It would be of small value to cite in full the lists of the features as given by different people. Instead the principal references will be given first and then afterwards some comments.

After Bleek the next outstanding writer to interest himself in the Bantu family was Lepsius, in the introduction to his Nubische Grammatik, 1880. He set out twelve propositions which were intended to show the peculiar characteristics of the Bantu family. These were subsequently quoted in a somewhat condensed form by Cust in his Sketch of the Modern Languages of Africa, 1883. Long after this the propositions of Lepsius were considered to be an authoritative outline of Bantu criteria, being used by Werner in The Bantu Languages as late as 1919. The last and most important citation of them is a critical one in Johnstone's great work, A Comparative Study of the Bantu and Serni-Bantu Languages, 1919, to which those interested should refer

In 1891 Torrend published his Comparative Grammar of the South-African Bantu Languages, in which he treats at length of what he calls the 'characteristic features' of the family. Of his four principles, however, only the first has much value, and this is simply a restatement of the system of prefix concord. He gives nothing at all which might help towards a delimitation of Bantu.

Five years later there appeared Etudes sur les langues du Haut-Zambézie by Jacottet,
a work which contains a considerable introduction dealing with general questions arising in the field of Bantu language study. Curiously enough, however, he makes no attempt whatever to define what he means by Bantu, apparently assuming that his readers already know.

Another interesting thing is that Meinhof, to whom the subject of Bantu philology owes so much, does not seem to have attempted any definition of the term Bantu. Presumably he was content to take its meaning as being sufficiently clear.

Johnstone, in the work already referred to, sets out twelve propositions of his own 'to define the special or peculiar features of the Bantu languages', at the same time as showing why he does not accept the propositions of Lepsius. Although some of his features are of wider application than those of any previous list, yet they have a real weakness which arises from the inadequate grammatical and phonetic technique at the disposal of the writer.

Other writers have also dealt with this question, without making any important contribution to the subject, since they mostly reiterate what has been said previously. In 1935, however, Doke published his well-known Bantu Linguistic Terminology, in which he sets out eleven main characteristics of Bantu languages. This is a much clearer statement than any that had previously been made, but here again the features are not given as criteria, and so do not meet our demand for some means of deciding whether or not a given language is to be taken as Bantu.

Finally Tucker in his Eastern Sudanic Languages, 1940, gives a well-set-out statement of what he calls 'criteria . . . for comparison with Sudanic and Hamitic languages'. In point of fact the seventeen characteristics listed have been chosen principally to fit in with the lists the author had already established for Semitic and Hamitic languages, and as he notes 'there are other Bantu criteria which fall outside these seventeen points and which would accordingly need a separate treatment in a Bantu exposition'.

One thing which becomes evident from a study of all these lists is that nobody has so far established any real criteria which can be applied to a language to discover whether it would fall within the Bantu family or not. The most that has been achieved is a more or less complete statement of the characteristic features of Bantu languages, scarcely any one of which is found to apply to all the languages which everyone has accepted as Bantu. Thus, for example, most writers emphasize certain phonetic characteristics such as open syllables, but in Luwunda (L.52) there are such forms as diyal 'stone', and cikas 'hand', while many languages in Zones A and B have such forms as osal 'to work' and osip 'to strike'. It is no answer to this problem to suggest that the final vowel has been lost through the influence of non-Bantu languages, since languages with words like these are either to be included in or excluded from the Bantu family. If they are to be included, then the open syllable cannot be a criterion.

Johnstone also says that 'No two consonants can come together without an intervening vowel, except one of them to be an aspirate or a nasal, and no consonant is doubled in pronunciation'. That this is of little value is shown by the fact that he himself gives words which break these rules, as bgato 'canoe' and sxwa 'termite' in Karanga (his No. 64), and murro 'fire' in Copi (his No. 2b) and edzigga (this incorrectly for ezziga) 'tear' in Ganda (his No. 4). Other phonetic features such as stress and tone are often mentioned, but it can be shown that in LUBA-LULUA (L.3I) and BEMBA
(M.42a) there is no stress of any kind, and that in NYIKY USA (M.3I) and MAKUA (P.3I) there are no tones.

Various grammatical features are also cited, such as the existence of 'object infixes' or 'verb species', but in Zones A and B there are languages which have all the other recognized Bantu characteristics, but neither of these.

The problem confronting us then is the establishing of clear criteria by which the use of the term Bantu can be defined. One of the prerequisites for these is a grammatical system within which the criteria may operate. There is no space in this present work for me to develop such a system, but the following suggestions for criteria must be taken to be an integral part of the system. Any slight obscurity that may appear to inhere in the definitions will be due to this fact, though it is probable that this may be dispelled when the reader has studied the next chapter.

## 'The Criteria

It is necessary to divide into two groups the criteria to be used for identifying languages as Bantu. This is because there are some languages in which contraction and attrition have to be postulated to such an extent that it becomes extremely difficult to apply some of the criteria. These are therefore placed in the second group and labelled 'subsidiary'. The use of this term is not, however, to be taken to mean that the criteria in this group are less important, simply that they are less easy to apply.

Here then is a bare list of the criteria. This is followed by examples chosen to illustrate each of them in turn.

## A. Principal Criteria

I. A system of grammatical genders, usually at least five, with these features:
(a) The sign of gender is a prefix, by means of which words may be assorted into a number of classes varying roughly from ten to twenty.
(b) There is a regular association of pairs of classes to indicate the singular and plural of the genders. In addition to these two-class genders, there are also oneclass genders where the prefix is sometimes similar to one of the singular prefixes occurring in a two-class gender, and sometimes similar to one of the plural prefixes.
(c) When a word has an independent prefix as the sign of its class, any other word which is subordinate to it has to agree with it as to class by means of a dependent prefix.
(d) There is no correlation of the genders with sex reference or with any other clearly defined idea.
2. A vocabulary, part of which can be related by fixed rules to a set of hypothetical common roots.
B. Subsidiary Criteria
3. A set of invariable cores, or radicals, from which almost all words are formed by an agglutinative process, these radicals having the following features:
(a) They are composed of Consonant-Vowel-Consonant.
(b) When a grammatical suffix is attached to the radical there is formed a 'base' on which words identifiable as 'verbals' are built.
(c) When a non-grammatical, or lexical, suffix is attached to the radical there is formed a 'stem' on which words identifiable as nominals are built. When a nominal belongs to a two-class gender the sounds and tones of the stem are the same in both classes.
(d) A radical may be extended by an element found between it and the suffix. Such elements, termed 'extensions', are composed either of Vowel-Consonant or of a single vowel.
(e) The only case of a radical occurring without a prefix of any kind occurs in verbals used as interjections.
4. A balanced vowel system in the radicals, consisting of one open vowel ' $a$ ' with an equal number of back and front vowels.

## Examples of the Criteria

## 1. The Grammatical Genders

(a) The Classes. It might seem rather superfluous to illustrate a feature so well known as this, but even if only for the sake of completeness some examples must be given. Here then are lists of type words with independent prefix, taken from seven widely separated languages. For clearness the prefixes are shown separated by hyphens.
A. FAD (A.66). 1. mu-r 'person'. 2. bu-nega 'women'. 3. m-bi 'door'. 4. mij-nlu 'heads'. 5. a-kok 'stone'. 6. me-lu'days'. 7 . i-ku'skin'. 8. bj-vi 'bones'. 9. n-dam 'width'. 10. u-nyy 'finger'.
B. BUBADG $[$ (C.2ib). 1. mu-yibi 'thief'. 2. ba-kunzj 'chiefs'. 3. mu-kolo 'night'. 4. mj-luku 'hearts'. 5. lij-kabu 'gift'. 6. ma-boko 'arms'. 7. ilamba 'cloth'. 8. bjesanga 'islands'. 9. n-tjna 'root'. 1o. n-cete 'nails'. ir. lu-kulu 'leg'. I2. bu-ljtu 'weight'.
C. ןLAMBA (F.31). i. umu-nuna 'brother'. 2. ia-suggu 'wives'. 3. umugunda 'garden'. + imi-kono 'arms'. 5. j-kota 'tree'. 6. ima-lolo 'mud'. 7. iki-muli 'torch'. 8. ij-ndolo 'potatoes'. 9. in-zila 'path'. ro. in-sjmba 'lions'. Ir. ulu-limi 'tonguc'. 12. ika-gii 'small egg'. 13. jpij-tijla 'small cloths'. 14. uu-ta 'bow'. 15. kuj-genda 'going'.
D. RUGURU (G.35). 1. imu-ana 'child'. 2. iwa-lume 'men'. 3. gum-biki 'tree'. 4. imi-gunda 'gardens'. 5. -bago 'grass'. 6. gama-bue 'stones'. 7. iki-sima 'well'. S. ipfi-moka 'potatoes'. 9. im-buli 'debt'. ro. tsinsabi 'ropes'. 11. ulu-kuli 'body'. 12. u-beho 'wind'. 13. ila-tsoka 'small snake'. 14. uku-sona 'sewing'.
E. BEMBA (M.42a). 1. umu-kasi 'wife'. 2. aba-londo 'fishermen'. 3. umupeni 'knife'. 4. imi-fuko 'sacks'. 5. i-bala 'garden'. 6. ama-tipa 'mud'. 7. ici-puna 'stool'. S. ifi-lamba 'tears'. 9. in-supa 'calabash'. io. in-seko 'laughter'. 11. ulu-limi 'tongue'. 12. aka-suba 'sun'. 13. utu-mini 'centipedes'. 14. ubu-lalo 'bridge'. 15. uku-tui 'ear'. 16. apa-ntu 'precise place'. 17. umu-ntu 'enclosed place'.
F. MBUNDU (R.ir). i. u-lume 'man'. 2. oba-pika 'slaves'. 3. u-tale 'iron'. 4. obi-tima 'hearts'. 5. e-limi 'tongue'. 6. a-bele 'breasts'. 7. oci-ngumba 'thief'. 8. om-bisi 'fish'. 9. olon-jila 'paths'. io. olu-nye 'fly'. ir. okalunga 'sea'. 12. otu-balu 'horses'. 13. o-wuya 'heat'. 14. oku-ulu 'leg'.
G. RODGA ('T.24). 1. amu-tiri 'worker'. 2. aba-fambi 'travellers'. 3. antiro 'work'. 4. ami-lambu 'rivers'. 5. a-lapi 'rag'. 6. ama-siku 'days'. 7. asi-kosi 'neck'. 8. apsi-komu 'axes'. 9. am-bilu 'heart'. 10. atin-siba 'feathers'. II. ali-bamb̄u 'rib'. 12. abu-kulu 'greatness'. 13. aku-famba 'going'.
Since this is not a work on Comparative Bantu, no attempt has been made to correlate the numbering of the classes in the different languages. Moreover, where there are other forms of the one prefix, as, for example, with a monosyllabic stem, these are not shown. Similarly, since we are considering grammatical form and not etymology, it is of no importance that the word otubalu (Mbundu Class 12) is apparently the plural of a loan-word okabalu 'horse' (cf. Portuguese cazallo).
(b) 2 -Class and $I$-Class Genders. 'This feature has not reccived the clarity of treatment in the past that it should have done. For this reason it must be adequately illustrated. The following lists of the two types of genders are from the same seven languages, but it must not be assumed that they are exhaustive, since other genders may well exist in some of these.
A. FAl) (A.66)

| i/2 | mu-nega/ba-nega 'woman, women' |
| ---: | :--- |
| $3 / 4$ | n-lem/mj-nlem 'heart(s)' |
| $5 / 6$ | a-lo/me-lo 'ear(s)' |
| $7 / 8$ | i-to/bj-to 'cloth(s)' |
| $9 / 6$ | n-da/me-nda 'house(s)' |
| $10 / 5$ | u-non/a-non 'bird(s)' |

B. BUBADGI (C. 2 Ib )

I/2 mu-nịnga/ba-nịga 'friend(s)'
3/4 mu-sulu/mi-sulu 'stream(s)'
5/6 lij-bele/ma-bele 'breast(s)'
5/2 1j-kutu/ba-kutu 'smallpox pustule(s)'
5/4 lị-ulu (pr. zulu)/mj-ulu 'nose(s)'
7/8 i-loko/bj-loko 'thing(s)'
7/2 i-yele/ba-yele 'bullet(s)'
9/10 n-kingu/n-kingu 'neck(s)'
9/6 n-kumbu/ma-nkumbu 'nickname(s)'
ir/6 lu-boko/ma-boko 'arm(s)'
ir/ıo lu-pusu/m-pusu 'skin(s)'
12/6 bu-tali/ma-tali 'knife(s)'
3. m-bon 'oil'
4. mi-ya 'entrails'
5. a-kuma 'honour'
6. me-kij 'blood'
7. i-kjj 'strength'
8. bj-su 'dispute'
9. m-bjla 'specd'
10. u-son 'shame'
2. ba-tupbi 'excreta'
3. mu-lika 'mercy'
4. mj-tukj 'sweat'
5. li-kind $\mathfrak{j}$ 'aroma'
6. ma-lol $\mu$ 'jelly'
7. i-lunga 'innocence'
8. bị-lukjesa 'rust'
9. m-pio 'cold'
10. n-golj 'sleep'
ir. lu-bjku 'permanence'
12. bu-lulu 'bitterness'
C. ILAMBA (F.3I)
r/2 umu-tepj/ia-tepj 'thief(s)'
3/4 umu-gulu/imi-gulu 'leg(s)'
5/6 j-ku̧pa/ima-kupa 'bone(s)'
7/8 iki-latu/ji-latu 'shoe(s)'
3. umu-lamu 'quietness'
4. imi-gari 'blood'
5. |-gulo 'sky'
6. ima-ku̧ta 'oil'
C. §LAMBA (F.3I) (contd.)

7/6 iki-kololo/ima-kololo 'cough(s)'
9/ro in-sime/in-sime 'knife(s)'
11/io ulu-tondo/in-tondo 'day(s)'
ri/6 ulu-tumbi/ima-tumbi 'hair(s)'
12/13 ika-nanso/ipj-nanso 'little girl(s)'
7. iki-kima 'female habits'
8. ij-gao 'bread'
9. in-zala 'hunger'
10. jn-guru 'power'
II. ulu-nkundi 'dust'
12. ika-uloa 'feeble love'
13. jpj-sala 'insufficient wisdom'

I4. uu-kata 'laziness'
15. kuj-genda 'going'
3. gum-lopa 'blood'
4. imi-sayga 'sand'
5. -woga 'fear'
6. gama-kala 'charcoal'
8. ipfi-pfuta 'little oil'
10. im-beho 'cold'
ir. u-tulo 'sleep'
13. uku-zenga 'building'
E. BEMBA (M.42a)

1/2 umu-lume/aba-lume 'husband(s)'
3/4 umu-bili/imi-bili 'body(s)'
5/6 i-sembe/ama-sembe 'axe(s)'
7/8 ici-londa/ifi-londa 'wound(s)'
9/10 in-soka/in-soka 'snake'
9/6 in-noygo/ama-longo 'pot(s)'
ir/ro ulu-sato/in-sato 'python(s)'
ir/6 ulu-kasa/ama-kasa 'sole(s)'
12/13 aka-tende/utu-tende 'heel(s)'
14/6 ubu-tanda/ama-tanda 'mat(s)'
15/6 uku-boko/ama-boko 'arm(s)'
F. MBUNDU (R.II)

I/2 u-feko/oba-feko 'girl(s)'
$3 / 4$ u-kolo/0bi-kolo 'rope(s)'
5/6 e-sala/a-sala 'egg(s)'
7/4 oci-lapo/obi-lapo 'paddle(s)'
$8 / 9$ on-golo/olon-golo 'knee(s)'

1a. makanta 'locust(s)'
3. umu-lopa 'blood'
4. imi-pembu 'refreshment'
5. i-loba 'earth'
6. ama-saka 'kaffir-corn'
7. ici-ani 'grass'
8. ifi-basi 'leprosy'
9. in-sala 'hunger'
10. in-soni 'shame'
ri. ulu-bilo 'speed'
12. aka-pumpu 'insolence'
13. utu-lo 'sleep'
14. ubu-luygu 'bead(s)'
15. uku-pita 'passing'
16. apa-ntu 'precise place'
17. umu-ntu 'enclosed place'
3. u-sumba 'fear'
4. obi-nene 'rubbish'
5. e-seke 'sand'
6. a-loba 'mud'
7. oci-sola 'love'
F. MBUNDU (R.ir) (contd.)

| Io/9 olu-sapo/olo-sapo 'fable(s)' | 8. on-dulu 'gall' |  |
| :--- | :--- | :--- |
| II/12 oka-pote/otu-pote 'coat(s)' | 9. olon-jele 'beard' |  |
| I3/6 | o-wato/a-wato 'canoe(s)' | 10. olu-me 'dew' |
| $14 / 6$ oku-oko/oba-oko 'arm(s)' | 11. oka-songu 'bead(s)' |  |
|  |  | 12. otu-ma 'clay' |
|  |  | 13. o-wisi 'smoke' |

G. RODGA (T.24)
i/2 amu-yibi/aba-yibi 'thief(s)'
3/4 am-pimu/ami-pimu 'measure(s)'
3. an-talo 'abundance'

5/6 a-boko/ama-boko 'arm(s)'
4. ami-saba 'earth'

7/8 a Si-lembe/apsi-lembe 'hat(s)'
9/10 am-buti/atim-buti 'goat(s)'
II/ro ali-bala/atim-bala 'plain(s)'
12/6 abu-gamu/ama-gamu 'end(s)'
6. ama-golo 'greediness'
7. afi-rami 'cold'
9. am-bere 'dew'
10. atin-tfalu 'kindness'
in. ali-sima 'price'
12. abu-lolo 'laziness'

It will be noted that the one class genders cannot be equated with any notional category like 'abstract' or 'substance', but that countable words like 'bead(s)' and 'locust(s)' may be found in them.

From the examples given it is clear that no attempt can be made to associate one set of prefixes with the idea of 'singular' and another with 'plural'. This is not only because of the one-class genders but also because of the fact that one class may be plural in one gender and singular in another, as in FAD 5/6 and 10/5.
(c) Agreement by Dependent Prefixes. To illustrate this criterion two sentences are given from each of the seven type languages. The English equivalent is the same in each case, and one of the sentences is the plural corresponding to the other. The meaning is 'his other knife is lost' and 'his other knives are lost'. In this case also the prefixes are separated by hyphens simply to throw them into relief, though they are naturally an integral part of the word.

| FAD (A.66) | u-ken by-a m-box u-ngazjme a-key dy-a a-vox e-ngazime |
| :---: | :---: |
| BUBADGI (C.2ıb) | bu-tali bu-yiyi bu-sjsu bu-ulimbana ma-tali ma-yiyi ma-sj̣su ma-ulj̣mbana |
| ILAMBA (F.31) | in-sj̣me y-akwe y-ingi i-lịmilịle jn-sime z-akwe $z$-ingi zi-lilimple |
| RUGURU (G.35) | gum-mage gw-ake m-yage gw-agire imi-mage $y$-ake mi-yage $y$-agire |
| BEMBA (M.42a) | umu-peni u-akue u-mbi naa-u-luba imi-peni i-akue i-mbi naa-i-luba |
| MBUNDU (R.ır) | om-moko y-ahe yi-kwabo y-anyelela olom-moko by-ahe bi-kwabo by-anyelela |
| RODGA (T.24) | amu-kwa w-akwe wu-ywana wu-lalekile ami-kwa y-akwe yi-ŋpana mi-lalakile |

The most important feature of this prefix agreement is simply that there is a dependent prefix corresponding to each independent prefix. The term 'alliterative concord' has frequently been used, but from these few examples it will be seen that this is hardly an adequate description of the facts. It is therefore preferable not to use it, but simply to speak of agreement by prefixes.
(d) Absence of Correlation of Genders and Ideas. Since this is a negative criterion it is difficult to illustrate. Here, however, are some examples from BEMBA which will demonstrate that there is not necessarily a correlation even between gender and the idea of person.

Here are a few typical examples chosen from the large number that might be given.
tumba umutali 'a long skin bag' baatumba abatali 'long skin bags'
This shows that the prefixes umu-/aba- are not confined to personal reference.
isilu ilitali 'a tall madman'
amasilu ayatali 'tall madmen'
icibambe icitali 'a tall hunter'
ifibambe ifitali 'tall hunters'
These show that other genders may also refer to persons, and so cannot be said to be confined to things and non-personal living creatures.

## 2. The Related Vocabulary

To illustrate this criterion adequately would require a treatise on Comparative Bantu, but its importance and application may be seen in the following examples from MFINU (B.4r). This language is remarkable in having upwards of twelve simple vowels, including three $\mathbf{u}$-sounds and three $\mathbf{o}$-sounds. Here are examples of words containing these sounds, together with the starred forms of common Bantu to which they can be related.

| With very close u | ndu 'pepper' <br> bbu 'beach' | "-LUNGU (cf. BUBADGI: ndungu) |
| :--- | :--- | :--- |
| With open u | mpu 'rat' | "-BUNGU (cf. BUBADGI: libungu) |
| ndu 'brother' | "-LUKU (cf. KODGO: mpuku) |  |

From these few but typical examples it may be seen that a certain quality of vowel in monosyllabic stems in MFINU is correlated to a given type of second consonant in the starred form. In this way a definite, even if unusual, relationship of vocabulary is established for this language.

## 3．Word－Building from Radicals

The first and last words of the singular sentences given above may be taken in order to illustrate the first of the subsidiary criteria．＇To throw the radicals into relief they are put in the upper case，while the grammatical suffixes are separated by a hyphen． ＇The extensions are in the lower case but may be known in the verbals in that they are not separated from the radical．

$$
\begin{aligned}
& \text { FAD (A.66) } \\
& \text { BUBADG (C.2 } 1 \text { b) } \\
& \text { ILAMBA (F.31) } \\
& \text { RUGURU (G.35) } \\
& \text { BEMBA (M.42a) } \\
& \text { MBUNDU (R.ir) } \\
& \text { RODGA (T.2. })
\end{aligned}
$$

The example from FAD shows the difficulty of applying subsidiary criteria，since neither of the words in this language has a suffix．In spite of this，however，the radical has a structure similar to those of the other languages．

To illustrate still further the way in which the radical occurs in words of both kinds，here are some groups of words from five of the languages．

| FAD： | －LUK＇marry＇（with grammatical suffix，－LUG－a） <br> －LUGe＇arrange marriage of＇aL乌K／meL乌K＇marriage（s）＇ |
| :---: | :---: |
| BUBADGİ： | －BAL－＇marry＇－BALjs－＇give in marriage＇ <br> －BALil－＇assist at marriage of＇ <br> lỉBALa／maBALa＇marriage（s）＇ <br> muBALilj／baBALilj＇assistant（s）at marriage＇ |
| 〔AMBA： | －TOOL－＇marry＇－TOOLu－＇be marricd＇ －TOOLjsi－＇arrange marriage of＇ umuTOOL $\mathrm{j} / \mathrm{iaTOOL} \mathrm{j}$＇bridegroom（s）＇ umuTOOLua／iaTOOLua＇bride（s）＇ uuTOOLi＇marriage＇ |
| BEMBA： | －UP－＇marry＇－UPu－＇be married＇ <br> －UFi－＇arrange marriage of＇ iciUPo＇marriage＇ubuUFi＇married state＇ |
| MBUNDU： | －KUel－＇marry＇－KUelis－＇arrange marriage of＇ －KUeliu－＇be married＇ oloHUela＇marriage＇ |

The main thing to note from these examples is that either of the consonants of the radical may be variable within the one group of words built from it．Thus in BEMBA the final consonant is sometimes－P－and sometimes－F－，while in MBUNDU the radical given has -K －or $-\mathrm{H}-$ as its first consonant．
The example from FAD demonstrates that though the subsidiary criteria may be difficult to apply，they are not entirely inapplicable in a language of this kind．In such cases it is usually possible to determine the radical，but the large number of words without a suffix often creates problems in the distinguishing of verbals from nominals．

Similarly it is frequently difficult to identify the extensions and to distinguish them from suffixes, as may be seen in the above example.

The importance of the criterion of the invariability of the stem of nominals in two-class genders can best be illustrated in a negative way. There is an obscure language called Ndabe spoken near the Bantu frontier in the Cameroons. It has some features which resemble those usually laid down for Bantu languages, but many of its words behave like these:

| nyy/nyol | 'knee(s)', | $\operatorname{mfo}(-) / \mathrm{mfo}(-)$ | 'slave(s)' |
| :--- | :--- | :--- | :--- |
| fo/fal | 'head(s)' | $\operatorname{ke}(-) / \mathrm{ke}(-)$ | 'finger(s)' |

Thus in spite of the fact that there is a kind of grammatical agreement between these words and the numerals, the language cannot be accepted as Bantu.

Some difficulty may arise with respect to the criterion that only verbals used as interjections are entircly without prefix. This occurs in a number of languages of Zone A which have zero prefix in some cases. Thus in DU̧MA (A.72), for example, the personal prefixes in the plural are l - for the first and second persons and ba-for the third person. In the singular, however, all three persons have zero prefix, which might be mistaken for a case of a word with no prefix at all: e.g. mwana yimba 'the child is singing'.

Up to the present no language accepted as Bantu has been found in which verbals in simple sentences are always without a prefix, and indeed this would appear to be completely foreign to Bantu structure. In those languages where it might be argued that the sign of agreement with its subject is a self-standing 'pronoun', there is an increasing tendency always to use this, in such a way that it is debatable whether or not it should be separated from the verbal. For example, in BASA (A.44) me pam or mepam 'I arrived'.

## 4. The Balanced Radical Vowel System

To illustrate the Bantu vowel system here are two complete series of radicals, one from a seven-vowel language and one from a five-vowel language. The tonal behaviour of the radicals is identical throughout, and no other radicals exist with these consonants and this tonal behaviour.
BUBADGI (C. 2 rb ): -BAL- 'count', -BlıL- 'follow', -BIL- 'border', -BEL- 'be annoyed', -BU̧L- 'be numerous', -BUL- 'break', -BOL- 'rot'.
BEMBA (M.42a): -LAL- 'crack', -LIL- 'cry', -LEL- 'rear', -LUL- 'become bitter', -LOL- 'have the eyes open'.
What was said about MFINU in the paragraph on the related vocabulary will be sufficient to show how it may be practically impossible to apply this criterion to such languages.

## Languages which are incompletely Bantu

As might have been expected, there are languages in which some of the criteria we have established hold good, but some do not. An example of one kind of such a partly Bantu language is seen in $B / R A$ (D.32). In this language the vocabulary relationship referred to in the second criterion is quite clear, as also the structural features and vowel system of the third and fourth criteria. The grammatical agree-
ment and gender system, however, is distinctly fragmentary. There is, for example, only one type of prefix alternation between singular and plural nominals, mbuhu/ babuhu 'person(s)', ŋkama/bakama 'chief(s)'. The greater part of the nominals are invariable, although the element ba- may be prefixed as a sign of the plural, e.g. kịma/bakịma 'thing(s)', kjboko 'arm(s)', ganj 'word(s)'. 'The system of agreement by means of dependent prefixes is equally incomplete. Words like mbuhu govern agreements of this kind, mindo mankina 'this other', while those like babuhu govern these agreements, bendo baykina 'these others'. The remainder of the words, however, govern the same kind of agreement, whether they are singular or plural, and whether they have the prefix ba- or not: e.g. kj̣ma lake lando mankina 'this other thing of his', bakima lake lando maykina 'these other things of his'. There are only two verbal prefixes, a- which is usually singular, and ba- which is usually plural.

Although languages of this kind cannot be called Bantu owing to their not having the complete prefix system we have described as a criterion, their relationship to the Bantu languages is sufficiently close for them to be taken into account. We shall therefore call them 'Sub-Bantu'. Some of the lingua franca languages like MA1JGALA (C.26d) are in this category, since they have well-defined two-class genders, like the true Bantu languages, but little or no prefix agreement in dependent words.
A second type of language which obeys only some of the criteria is found in the Cameroons and south-castern Nigeria. 'These languages obey the first criterion but not the others. That means that while they have a system of grammatical genders and agreements operated by means of prefixes, they show little or no relationship of vocabulary with full Bantu languages. In addition they do not display even the rudiments of the structural features laid down in the third criterion; moreover their vowel system is frequently complicated. An example of this may be seen in BAFUT, a language spoken in the British Cameroons near the Bantu frontier. There are such genders as munwi/bugwi 'knife(s)', azo/njo 'thing(s)', ati/üti 'tree(s)'. There are such agreements as muywị $\underline{\underline{k}} \boldsymbol{\operatorname { l a l a }}$ 'this knife', buywj bula 'these knives', nülihị nula 'this eye', mịh mula 'these eyes', $\mathrm{y} \mu$ g gula 'this man', bö bula 'these men'. This kind of grammatical behaviour is definitely reminiscent of what happens in the languages we have accepted as Bantu, but it cannot be used to establish any clear relationship such as exists in the case of the Sub-Bantu languages. We shall therefore adopt the term 'Bantoid' to describe any language that has a system of prefix genders and agreements of this kind without any other Bantu features.

In view of the great difference between these two kinds of partially Bantu languages, it is natural to treat them differently. The Bantoid languages are therefore not dealt with at all in this work, but the Sub-Bantu languages are placed within the scheme of classification, being distinguished by the use of italic type.

## METHODS OF CLASSIFICATION

We now have to consider the answers to the question, 'How are the Bantu languages to be classified?' For our present purpose we may ignore the method used by Cust, which has little or no linguistic basis, being merely geographical. There are, however, other systems of classification which are based on linguistic facts. These may be roughly divided into three types: (1) The Historical, (2) The Empirical, (3) The Practical. We shall take each of these in turn.

## i. The Historical. Method

It was Meinhof who advocated this method of classification, principally as an outcome of the technique of comparative Bantu phililogy he originated. Briefly it would involve the establishing of a genealogical table for the language family. From this it would then be possible to assert that the members of a given group had sprung from a common ancestor, which was itself a late descendant of the common parent of all Bantu.

There is no need for us to discuss here the implications or the merits of this technique, since the likelihood of its being able to produce results is so remote. Some useful deductions may be made about the sounds of the hypothetical common Bantu, but in a field with practically no historical records, true historical study, as distinct from comparative study, is impossible.

From what Meinhof himself says in the chapter on classification in his Introduction to the Phonology of the Bantu Languages, one may suspect that he realized the nature of the problem involved in the technique he advocates. In fact this is the least convincing chapter in the whole work.

## 2. The Empirical Method

The essence of this method consists in the drawing of isoglosses on the map in order to show the distribution of various linguistic features. Then if several of the isoglosses coincide, this may be taken as the boundary between different language areas. In practice, however, it means that certain differentia are chosen, and then used in an attempt to divide up the area covered by the Bantu languages. Since this method is the one that has been implied in most of the classifications made so far, it must be considered in some detail, both as to its implications and as to its results.

First then as to the method itself. What are the linguistic differentia that can be used for plotting isoglosses? The following list includes every type that may be so used.
(a) Lexical, i.e. as to differences of vocabulary.
(b) Grammatical, i.e. as to differences of form and sentence structure.
(c) Phonological, i.e. as to differences of distinction between sound units.
(d) Phonetic, i.e. as to differences in the actual sounds of speech.
(e) Tonal, i.e. as to differences in the tone system.

We must then study each of these types of differentia, and try to show what results can be achieved by their use.

## (a) Lexical Differentia

There are two kinds of lexical differentia. One is concerned with the distribution of actual words and the other with the distinctive features of the words in the vocabulary.

The first of these kinds was used chiefly by Johnstone, who has shown that some very interesting results can be achieved by means of it. If, for example, we plot the occurrence of these five words for 'house', *NYUMBA, *NGANDA, "NJUBU, *NDAGU, *NJO, we get well-defined areas. Unfortunately, however, as had already been pointed out by Meinhof, isoglosses obtained in this way from one set of words rarely coincide with those obtained from another set. Instead of plotting the areas where the different words for one idea occur, it is also possible to plot the limits of the distribution of certain widely occurring words which can all be related to one common starred form. Thus, for example, the isoglosses for the occurrence of *-LEET- 'bring', *-LEK- 'leave', *-LIM- 'cultivate', "-TUUL- 'put down', *-P UAL- 'wear', *-BİAL- 'give birth to', *MULJ 'village', all show a remarkable similarity in that none of these roots is represented in the languages north-west of a line from Benguella through Léopoldville to Stanleyville. Experiment proves that this second method of plotting isoglosses is much more useful than the first.

One of the difficulties in any system of classification based merely on words is that there is rarely a sudden break in the distribution of vocabulary, apart from occasional cases like the one just given in the previous paragraph. A study of the fragmentary word-lists given by Johnstone shows that adjacent languages frequently have vocabularies that are similar, and it was this fact that led him to base his classification largely on words. It is also an unfortunate fact that all too often the sum total of our knowledge of a language is contained in a list of words, and this frequently of doubtful reliability. The important thing for our present purpose, however, is that any system of classification based on words has an essential weakness. This inheres in the fact that vocabulary can so easily be borrowed by one language from another without effectively bringing the two languages closer together.

There is only one satisfactory way in which the closeness of the relationship between languages can be determined by means of word-lists. This involves the application of the technique of comparative study based on the use of hypothetical starred forms. Briefly it consists in the compilation for each language of a 'standard' vocabulary of about a thousand distinct words of common occurrence. That the words should be distinct simply means the avoidance of duplication, thus if -lul- 'become bitter' and -lulu 'bitter' both occur in a language, only one of them may be put into the standard vocabulary.

When such vocabularies have been made for many languages, it will usually be found that just over three hundred of the words in a given language, i.e. about 30 per cent., can be related to corresponding words in at least two other languages by means of the comparative method, by which starred forms may thus be established.

Taking then one such standard vocabulary, and comparing it with that of another language spoken at a considerable distance, we shall usually find that the proportion of the vocabulary common to the two falls far below the 30 per cent. By taking other languages at distances becoming progressively less, we sometimes find that along a
certain line there is a sudden jump in the percentage of related words. This line may then be taken as part of an isogloss. The important feature of this method is the insistence on fixed rules of relationship to the starred forms in all cases, since this reduces the likelihood of misleading figures clue to loan-words.

Lexical differentia of the second kind, which have scarcely been considered at all up to this time, consist mainly of features which have a phonological or tonal significance. The isoglosses provided by these features give much more interesting results than those obtained by plotting individual words. Since, however, we shall be studying characteristics of this kind in sections $(c)$ and $(e)$, it will be preferable to leave them till then. There are a few other minor features which can be used, such as the following.
(i) The existence or not of any partial correlation of certain genders with notions of relative size. For example, in LUBA-LULUA (L.3ı) there is a gender ka/tu which contains such words as kasoko/tusoko 'small village(s)' related to musoko/misoko 'village(s)', even though a large number of words in this gender have no reference to small things, e.g., kapia/tupia 'fire(s)'. In BUBADGI (C.2ıb), on the other hand, there is nothing corresponding to this.
(ii) The existence or not of regular types of nominals related to the radicals of verbals. For example, in KODGO (H.16f) there are many kinds of nominals related to -sumb- 'buy', including nsumbi/basumbi 'purchaser(s)', nsumba 'manner of purchasing', nsumbo/nsumbo 'act(s) of buying'. MFINU (B. 4 I ), on the other hand, has no related nominals of this kind.

## (b) Grammatical Differentia

These are some of the most useful differentia for classification, but the only writer who has made any serious use of them is Doke, and even he introduces them in a subsidiary way. There are naturally \#naty heading and it is found that the isoglosses given by the more important of these frequently tend to coincide. Here are some of them, including those which could not have been used previously through lack of data.
(i) The existence or not of double nominal prefixes. For example, BEMBA (M.42a) has umuntu 'person', while LENJE (M.6I) has muntu 'person'.
(ii) The existence or not of the extra independent prefixes *PA-, *KU-, *MU-. For example, LUBA-LULUA (L.3r) has panzubu 'on the house', kunzubu 'towards the house', and munzubu 'in the house', while TE'TELA (C.7I) to the immediate north-west has nothing corresponding to this type of grammatical form.
(iii) The existence or not of nasal consonants in the dependent prefixes. For example, in KODGO (H.r6f) there is ntima mieto 'our hearts', but in NDODGO (H.2I) misima ietu 'our hearts'.
(iv) The method, if any, of modifying the prefix of a nominal when it is used as a sentence. For example, in each of the three following languages 'oil' is amafuta, but 'it is oil' in NYIHA (M.23) is mafuta, in TOTELA (K.41) maafuta, and in HA (D.66) nimafuta.
(v) The use or not of the suffix *- E in dependent tenses. For example, 'let us send' in MODGO-DKYNDU (C.61) is tutume, but in BUBADG $\underset{~(C .21 b) ~ i t ~ i s ~ t u t u m a . ~}{\text { M }}$.
(vi) The use or not of suffixes other than *-A in principal affirmative tenses. For example, KIKUYU (E.51) has -ire and -iite, whereas WUNJO (E.62b) has nothing but -a.
(vii) The system of tense signs. These vary enormously over the whole Bantu field, but similar features may be found within a group. For example, in Group E. 30 there is the unusual tense sign *-AKA--E used to refer to events in the immediate future.
(viii) The structure of negative statements. There are certain well-defined types of formal negatives in Bantu languages; for example, BUBADGI (C.2Ib) uses an independent negative particle at the end of the sentence, while DGOMBE (C.3I) has special negative tenses containing negative elements.
(ix) The use or not of infixes as substitute objects of verbals. For example, 'he fears me' in TIO (B.35) is abara me, but in MFINU (B.41) ambara.
(x) The method of constructing relative clauses. There are several of these; for example, in SUKUMA (F.21) we find kinhu ikiagua 'the thing which has fallen', but in GOGO (G.ir) icinhu ciono ciagua 'the thing which has fallen'.

## (c) Phonological Diffcrentia

Features of this kind have not previously been used for purposes of classification. They are, however, very useful and produce some interesting isoglosses. The definition of this type of differentia as given above was: 'differences in the distinctions between sound units'. Since, however, the term 'phonology' has been used in more than one sense, it is perhaps important to illustrate fairly fully the characteristics to which it refers here.

The phonological differentia are not concerned with the actual sounds used in speech, nor with the deduced 'sound-changes' studied in comparative Bantu philology. For example, in Swahili -keng- 'deceive' and -ceng- 'lop' are different radicals, whereas in Bemba -ceng- 'treat unfairly' is not distinguished from -keng-. At this point we are not interested in the fact that the -c- in the Swahili radicals corresponds to an -s- in Bemba (as Swahili -cek- and Bemba -sek- 'laugh') since that belongs to comparative study. Neither does it matter whether the -c- of Swahili is identical in pronunciation with the -c- of Bemba, since that is a phonetic question. Phonologically the significant thing is that there is an alternance $\mathbf{c} / \mathbf{k}$ before -e-in the first consonant of the radical in Swahili but not in Bemba.

Another illustration of this kind of characteristic may be seen in the occurrence of an alternance $\mathbf{1 / r}$. In TIO (B.35) - kal- 'dwell' must be distinguished from -kar'be tied', whereas in KODGO (H.16f) -kal- 'dwell' is not distinct from -kar-. This means that there is an alternance $1 / r$ in the second consonant of the radical in Tio but not in Kongo.

Similarly in NYANJA (N.3ra) there is an alternance $\mathbf{1 / d}$ in the first consonant of the radical, but in YAO (P.2I) there is not. For example, in Nyanja -lul- 'froth up' has to be distinguished from -dul- 'cut off', but in Yao -lul- 'froth up' is not distinct from -dul-.

Apart from the alternances in the consonants of the radical, which are too numerous to list, there are also other types of phonological differentia. Of the selection given in the following list some relate to alternances in the sounds of lexical elements, and
others to those of grammatical elements, but it is simplest to deal with them all under this heading.
(i) The existence or not of alternances $\mathbf{i} / \mathbf{j}$ and $\mathbf{u} / \mathbf{\xi}$ in the radical vowel. This could be expressed differently as an alternance of seven as against one of five vowel sounds in the radical. For example, RUIIHI (P.I2) distinguishes between the vowels in the radicals -imb- 'swell' and -imb- 'sing', whereas YAO (P.2I)-imb- 'swell' is not distinct from -jmb-.
(ii) The existence or not of an alternance of vowel quantity in the radical. For example, BEMBA (M.42a) distinguishes the vowel in -fum- 'go out' from that in -fuunt- 'drizzle', but MWADGA (M.22) does not distinguish -fum- 'go out' from -fuum-.
(iii) 'The existence or not of alternances $\mathbf{i} / \mathbf{e}$ and $\mathbf{u} \mathbf{o}$ in suffixes. For example, in KIKUYU (E.5I) ndjhu 'spray' has to be distinguished from ndijho 'big club', whereas in BUBADGI (C. 2 rb ) ykjpgu 'neck' is not distinct from jkingo.
(iv) Whether or not the alternances in the consonants of the extensions are similar to those in the consonants of the radicals. For example, the alternance $s / z$ occurs in the first consonant of the radical in both GANDA (E.15a) and KODGO (H.r6f), since Ganda distinguishes -sin- 'nauseate' from -zin- 'dance', and Kongo distinguishes -sin- 'be deep' from -zin- 'be burnt'. On the other hand, Ganda has a similar alternance in extensions, while Kongo has not; thus in Ganda -lamus- 'greet' has to be distinguished from -lamuz- 'bargain with', 'whereas in Kongo -sekes- 'whet' is not distinct from -sekez-.
(v) Whether or not there are alternances in the vowels of extensions similar to those of the radical and those of the suffix. For example, LUNDA (L.52), which has the alternances $\mathbf{i} / \mathbf{e}$ and $\mathbf{u} / \mathbf{o}$ in radicals but not in suffixes, has similar alternances in extensions. 'Thus though mukonu 'leg' is not distinct from mukono, -saluk- 'come out in a rash' must be distinguished from -salok- 'be restless in sleep'. Other languages like LUBA-I_ULUA (L.31) have no such alternance in the extensions.
(vi) Whether or not there is a similar alternance of quantity in the vowels of the extensions and those of the radicals. For example, both BEMIBA(M.42a) and KODGO (H.16f) have an alternance of quantity in radicals, since Bemba distinguishes -kul'grow up' from -kuul- 'extract' and Kongo distinguishes -kul- 'grow up' from -kuul- 'liberate'. In extensions, however, $\underline{B} e m b a$ has a similar alternance of quantity, whereas Kongo does not; thus -pelel- 'sow broadcast' in Bemba is distinct from -peleel- 'almost arrive', but in Kongo -kelel- 'filter for' is not distinguished from -keleel-.

## (d) Phonetic Differentia

Characteristics of this kind have been used more than once in attempts at classification, but these attempts have frequently failed through the inaccuracies in the available phonetic data. Moreover, data of this kind are not of much value in certain cases since similar phonetic processes are to be found in many languages outside the Bantu family. Thus, for example, the fact that the syllables *KI and *KE are pronounced ci and ce in the languages of Group M. 50 means little, as the same rules holds good in some European languages, such as Italian.

Here, however, are a few phonetic features which occasionally produce some useful isoglosses.
(i) The existence or not of vowel length at an internal vowel junction, or before a nasal compound. For example, neither LENJE (M.6r) nor NYANJA (N.3ia) has an alternance of quantity in the vowel of the radical, but whereas in Lenje muana 'child' is pronounced mwaana (when it is the subject of the sentence), in Nyanja a similar word is pronounced mwana.
(ii) The existence or not of phonetic prominence on certain syllables, such as radical intensity, or penultimate vowel length. For example, in BUBADG (C.2Ib) the two following words both have radical intensity, which means that in the first the prominence is on the first syllable, and in the second on the second, LOKolo! 'emulate!' and loKOLo 'cock's comb'. In BEMBA (M.42a), on the other hand, the pronunciation of the two following words is identical, showing that there is no radical prominence, ukuFISulula 'to bring out of hiding', ukufiSULula 'to invert them (i.e. things)'.
(iii) The behaviour of junctions involving a nasal consonant. There are many different types of such behaviour, including even a reduction of the number of alternances represented in the pronunciation. For example, YAO (P.21) has identical pronunciation of nTEKe 'let me draw (water)' and nLEKe 'let me leave', both being heard as ndeke, while in BEMBA (M.42a) there is nothing like this. In Bemba, on the other hand, the first syllable in each of the two following words is pronounced identically as nno-, nNO1.)Ke 'let me acquire', nLO1.)Ge 'let me pack', whereas in KODGO (H.rbf) this would not happen.
(iv) The behaviour of double vowel junctions. For example, in NYARUANDA (D.6I) ubuato 'canoe' is heard as ubgato, while in ZIBA (E.22a) a similar word, ubuato, is heard as ubwaato.
(v) The behaviour of the consonant $k$ - in the syllable preceding a radical commencing with a voiceless consonant. For example, in HA (D.66) the first consonant in kulima 'to hoe' is heard as k -, while the first in kutema 'to cut' is heard as g -, but in HOROHORO (D.28) the first consonant of the similar words kulima and kutema is heard as k - in both cases.

## (e) Tonal Differentia

Some very useful isoglosses are provided by differentia of this kind, though nobody has previously used them, since there has been inadequate information on the subject. There are, however, two main types of these differentia, one as to the tonal alternances, and one as to the relation between these alternances and the actual tones of speech.

Within the compass of this present work it is manifestly impossible to deal in detail with these interesting questions. One result of this is that the following features merely indicate some of the observed facts without any explanation as to how they were obtained. Moreover, this list of tonal differentia by no means includes all those which I have so far been able to establish.
(i) The existence or not of an alternance of tone on the radical. For example, in BENA (G.64) there are two kinds of tonal behaviour for radicals of a given shape,
-gul- 'buy' and -let- 'bring' being typical of these. In GOGO (G.in), on the other hand, there is only one kind of tonal behaviour for all radicals of a given shape, and the corresponding radicals -gul- and -let- always have identical tone-patterns.
(ii) The existence or not of an alternance of tone on the nominal suffix. For example, in BUBADGI (C. 2 Ib ) nominals with a dissyllabic stem fall into four tone-groups, which may be represented by these type words, mbindu 'dirt', ygandu 'crocodile', mpamba 'nothing', ndungu 'pepper', whereas in KODGO (H.r6f) all such words fall into two tone-groups only.
(iii) The existence or not of an alternance of tone on extensions in nominals. For example, in BUBADGI (C.2rb) there is a difference in the tone-patterns of these two words, mukililj ( $-\ldots$ ) 'agent', and mulingili ( _- $^{-}$) 'calmness', whereas in VENDA (S.iI) a difference of this kind does not exist.
(iv) The existence or not of a tonal alternance in dependent prefixes. There are several types of such alternances, so it is only possible here to select one as an illustration. In SUKUMA (F.2I) the tone-pattern of the verbal is different in the two following cases, buri ikufuma ( $-\ldots-$ ) 'the goat will go out', buri jikufuma ( - _---) 'the goats will go out'. In HA (D.66), however, there is no difference in the $^{\text {n }}$ tone-pattern of the corresponding verbals.
(v) The use or not of tone-patterns determined by the syntactical relationships of words. For example, in MFINU (B.41) the tone-pattern of the first word is different in the two following cases, leburu lemo ( - $^{-}{ }^{-}$) 'one tribe', leburu leso ( . - - . $)$ 'that tribe', whereas in TIO (B.35) a similar word libura 'tribe' has only one tonepattern whatever its context.

## The Results of Applying the Differentia

From the list of differentia just given it might be thought that if these were used for plotting isoglosses, the classification of the Bantu languages would be a simple matter. Unfortunately, however, this is far from what is found when the attempt is made. A number of the differentia in the list were described as 'useful' and this is by no means incorrect. The real difficulty lies in the fact that none of the differentia can be applied consistently over the whole of the Bantu field. This is not through lack of data, nor is it because the differentia may sometimes be inapplicable, as, for example, when languages like BUBADG $\|_{\text {(C.2Ib) }}$ ) do not use nominals as sentences and so the one in section $b$ (v) cannot be applied. What actually happens is that each of the characteristics gives good results in at least one area but not in another.

If the empirical method of classification is to be used consistently each of the differentia should be equally valid wherever applied, otherwise the method collapses. An example or two will make clear the impossibility of the regular application of this method. The extreme case of its failure occurs when an isogloss provided by a given feature coincides with others in indicating a useful division between languages in one part of the field and then cuts right through the middle of a single language elsewhere. For example, the use of prefix ku- in place of the prefix tu- for the first person plural agrees with several other differentia in dividing the languages of Group E. 30 from those of Group E.ro. When we try to apply the same distinction farther south, however, we find that it marks a boundary right through the middle of NYAMWESI
(F.22) where ku- is used in the south and tu- in the north, but in this case the isogloss is solitary, and so cannot be used.

Similarly the existence of a seven-vowel system in radicals usually distinguishes a language from a neighbouring one with a five-vowel system in such a way that the languages are found to belong to different groups, e.g. Group C. 20 has seven vowels, but B. 30 and B. 40 five, F. 20 has seven and E. 20 five, S. 20 has seven and S. 30 five. Yet the isogloss arising from this difference is almost the only one separating NYIHA (M.23) from MALILA (M.24).

Our conclusion on the empirical method then is that it cannot be used without some modification, and this question will be discussed in the next section.

## 3. The Practical Method

The present work follows a practical system of classification. This means that the presence of some arbitrariness is admitted as an essential modification of the empirical method. It is presumably because others have not made this admission that no satisfactory classification has yet been achieved. Let us at this point then see exactly what we are trying to do.
'The relationships of the languages we accept as Bantu by applying our criteria are sufficiently clear to make some classification possible, while the number of the languages found in this family makes classification almost essential. There are two ways in which this can be undertaken. We may begin with the whole field and try to put in some boundaries to divide it up into a number of large sections. Then by a process of subdivision we may go on until we reach the smallest useful unit. This classification by fragmentation has been the technique adopted by almost all those who have previously attempted to classify the Bantu languages. There is, however, a quite different approach which may be used. 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. The arbitrariness lies in the exact set of characteristics we choose. If a more restricted set were chosen the group would be larger, and conversely if a wider set were chosen the group would be smaller. Moreover, it may sometimes happen that although a given set of characteristics is displayed by a group, in one member the most important of these is missing, yet in all other respects it is clearly necessary that it should be included in the group.

In the classification described in the next chapter it is this second technique which I have followed. This means that the whole of the Bantu field is shown as consisting of a number of groups of varying size and closeness of relationship. Since there are nearly eighty of these groups, some larger unit is clearly necessary for ease of reference. To place the groups in sets, a similar method is employed in which an arbitrary blend of characteristics is made. Naturally the validity of these larger units is less than that of the groups, but still the prevailing consideration in the establishing of such sets is linguistic. It proves convenient to make sixteen of these sets, which are called zones.

By zonc, therefore, is to be understood primarily a set of groups which have a certain geographical contiguity and which display a number of common linguistic features as well.

The use of the term 'arbitrary' must not lead the reader to think that the classification is capricious. As already stated, the arbitrariness consists in the choice of the differentia to be used in each case, and not in dispensing with the use of differentia. Thus, for example, at the meeting of the three Zones $\mathrm{B}, \mathrm{C}$, and H there is a bunching of so many isoglosses that any system of classification would have to place important boundaries here. But the net result of this practical system is simply that in citing the characteristics of any group or zone we can only state them broadly, and that in actual fact there will usually be some important exceptions. This, however, can hardly be held to be a defect of the system, but rather an inevitable outcome of the facts. We are faced with a situation in which we either have to introduce some element of arbitrariness or give up all attempts at classification.

What is claimed for the present work is that by taking into account as many features as possible the arbitrariness is reduced to a minimum. Moreover, since it is avowedly practical in its intention, similarities between widely separated languages are of little importance, and we shall avoid the kind of grouping suggested by Torrend and Jacottet which places together SUTHU (S.23), MAKUA (P.3r), and MPUDGWE: (A.71a).

## CHAPTER IV

## THE BANTU LANGUAGES CLASSIFIED

IT now remains simply to set out some of the results achieved by the application of the practical method just outlined. Before we do so, however, something must be said about the use of the terms 'language' and 'dialect'.
Here again we are faced with a situation in which no clear decision can be reached on purely scientific grounds. Moreover, there are added difficulties arising both from political considerations and from demographic data. Thus from a purely linguistic point of view there is no real reason for treating ZULU (S.32) as distinct from Xhosa ( S .3 I ), they could easily be regarded as a cluster of dialects. Yet to do so would mean ignoring the fact that the speakers of these two forms of speech have come to regard themselves as speaking two different languages. Similarly there might be some justification for treating SUKUMA (F.21) and NYAMWES! (F.22) as a dialect cluster, but it happens that the speakers of Sukuma are far more numerous than those of Nyamwesj, and that for political and demographic reasons we have to consider them as separate languages. Thus in deciding what is to be regarded as a distinct language, and what as a mere dialect, not only have we no watertight linguistic test to apply, but we have to bring in other considerations which are entirely non-linguistic.

In this way it is quite likely that the part of the following classification which will need most revision is that relating to the distinction between languages and dialects. In some cases the test of inter-intelligibility may be applied, but even this cannot be used without arbitrariness since one has first to decide the nature of the topics to be dealt with in such a test. Thus it may easily happen that a speaker of one language finds no difficulty in conversing with the speaker of another when they confine themselves to simple trading affairs, but yet these same two would be quite unable to understand each other in a discussion of some point of difference in their social customs.

## Numeration

As mentioned in the introductory chapter the method of numbering the languages has been presupposed by the use of the references whenever a language has been mentioned in the preceding chapters. The system worked out enables any language to be referred to by a letter and two figures. Each group is indicated by a figure, and the number of the language within the group by a second figure. Thus 42 means the second language in the fourth group. When the group as a whole is referred to, zero is used in place of the second figure, so 40 means the fourth group in a given zone.

Where there is a dialect cluster, this also is given a number like the single languages, and then the individual dialects are distinguished by additional small letters. For example, MYENE (A.71) is a cluster of three dialects, MPUDGWE (A.7ra), Rungu (A.7rb), and GALWA (A.7Ic).

There are sixteen zones in all, so that it would not have been practicable to use a purely geographical method of referring to them. Instead, each zone has been given a letter, and this is put immediately before the figures denoting the language in each case. Thus to say that BEMBA is M. 42 means that it is the second language in the
fourth group of Zone M , and consequently is in some measure related to a language like FIPA (M.13).

## Authorities

In a work of this size it is not practicable to cite all the authorities for the data used. As has been stated in the first chapter, much of the information has been gathered at first hand, but there are still some very large gaps in our knowledge of the Bantu field. It is clearly desirable to show where such gaps exist, so some of the languages are given an initial capital only, but others are put entirely in the upper case. It is only with respect to the latter that there are sufficient data to make the classification reasonably reliable. This is not to say that all the data used are equally trustworthy, or that the grouping is in any way authoritative, but simply to indicate that in such cases it is at least based on something beyond mere word-lists.

Where a language is referred to by a name written with an initial capital only, nothing is known, apart from what may be given in Johnstone's work, beyond the probability that there is such a language. When dealing with languages like these, one of two very unsatisfactory expedients has had to be adopted. Either the languages have been grouped on the basis of the meagre information contained in the word-lists, or a relationship asserted by some earlier writer has perforce been used. It will therefore be very likely that when more data become available a considerable modification of the classification may be necessary in such cases. It does not seem probable, however, that it will be necessary to make any more groups, but rather a reassortment of the languages between the groups. The numeration of the well-known languages will therefore be able to stand, and in this way we are provided, for those languages with some documentation, with a means of simple reference which can be used in general Bantu language studies or in the cataloguing of linguistic works.

## Classified List

Since the map only bears the reference numbers of the languages, it was necessary to provide a key to it in the form of a complete classified list. For this reason no full list is given at this point, but instead the groups in each zone are set out as the zones are studied in turn.

As was shown in the preceding chapter, the zones are not made on purely linguistic grounds. This means that in some cases the groups placed in one zone display a much closer linguistic relationship than those placed in others. Clearly the only satisfactory development of the technique adopted would have been a description of the linguistic characteristics of each of the groups. That, however, would have been far beyond the scope of this monograph. Instead, therefore, the zones are described in some detail, which throws into relief the nature of the relationship between the groups in any given zone.

In some cases the features noted are divided into two sets. 'There are what are termed 'common features', which are the ones not common to the whole of the Bantu field but nevertheless to be found to some extent in adjacent zones. Then there are the 'peculiar features', which are not necessarily confined exclusively to the zone in question, but which do not appear to occur in any of the languages immediately adjoining it.

ZONE A

| GROUP 10 | GROUP 40 | group 60 |
| :---: | :---: | :---: |
| II Dgolo | 4 I Bati | 61 YAUNDE |
| 12 KUNDU | 42 BO | 62 BUL |
| 13 Mbonge | 43 Koko | 63 Ntum |
| 14 Lue | 44 BASA | 64 Maka |
| 15 LUNDU | $45 \text { Sjkj }$ |  |
|  | 46 DGUMBA | $66 \mathrm{FAD}$ |
|  | 47 Gbea | 67 Make |
| GROUP 20 |  |  |
| 21 Mbuku |  | GROUP 70 |
| 22 KWIR! | Group 50 | 71 MYENE |
| 23 SUBU | 51 NOHU | 7 7a MPUDGWE |
| 24 DU̧ALA | 52 Naka | 7 rb Rungu |
|  | 53 Langi | 7ic GALWA |
|  | 54 Dgumbi | 72 DU̧MA |
| GROUP 30 | 55 BEIJGA | 73 KELE |
| 3 I BUBI | 56 Seke | 74 KUTA |

## Characteristics of the Zone

In this zone there is considerable linguistic relationship between the different groups, and it proves possible to list in some detail the features which characterize it.

## I. Common Features

1. The absence of any genders regularly containing words which indicate smallness or bigness. (Also in Zones B and C.)
2. The absence of an extension -u-. There are passive verbals of one kind or another in a number of the languages of this zone, but only in BEDGA (55) has anything been noted which even resembles the -u- of other zones. For example, uluma 'to send', ulumakue 'to be sent'. (Also in Zones B and C.)
3. The use of single independent nominal prefixes only. (Also in Zones B and C.)
4. The use of particles rather than extra independent prefixes. For example, in $\mathrm{B} ̧ \mathrm{BI}$ (3I) u-ite 'at the stone', a-ite 'to the stone', or in KELE (73) pe-djkokj 'on the stone'. An interesting isolated exception occurs in Group 10, where LUNDU (15) has an extra prefix u-, as in undabu 'in the house', which can govern an agreement, e.g. undabu ubukj 'in the house it is bad'. (Also in Zone C.)
5. The use of nominals as sentences without any prefix modification. For example, in MYENE (7I) aramba 'roots', mano aramba 'those are roots', or in LUNDU ( 15 ) bikaka binene 'big mats' or 'the mats are big ones'. (Also in Zones B and C.)

6 The occurrence of dependent tenses without the suffix *-E. This is by no means without exception, even within one group, e.g. MPUDGWE (71a) -gend- 'go', wikagende '(that) they should go', KELE (72) -lum- 'send', balumikj '(that) they should send', KUTA (74) -pik- 'do', bapikakye '(that) they may do'. Apart from the two examples just given, the suffix -e in dependent tenses only appears to occur in Groups 10 and 20. (Also in Zones B and C.)
7. The absence of the verbal suffix *-JLE which occurs in many other zones. (Also in Zones B and C.)
8. The rarity of true negative tenses. FAD (66) and MYFNE (71) apparently use a difference of tone-pattern as the sole sign of the negative in some tenses. In other languages the negative element is simply added to affirmative sentences, either to the verbal as affix, or elsewhere in the sentence. For example, in LUNDU ( 15 ) there is the infix -sa-, nalangaka 'I am reading', nasalaygaka ' $I$ am not reading', and in DU̧ALA (24) the -sij-, nalumị 'I sent', nasílumj 'I did not send'. In BASA (44), on the other hand, there is a self-standing negative word bi at the end of the negative clause, e.g. agatimp bi 'he will not return', cf. agatimp 'he will return'; and in DU̧MA (72) there is a double sign ka . . . ve, e.g. bisu livovị 'we have spoken', bisu kaljvovj ve 'we have not spoken'. 'The principal exceptions to this are in BEDJGA (55), where the negative of hukabapandj 'we shall carry' is the shorter word huabapa, and in KELE (73), where the negative of meelay ' $I$ will count' is the distinct tense mecilay. (Also in Zones B and C.)
9. The substitute object rarely an infix, but usually a self-standing word. For example, in LUNDU ( $\mathrm{I}_{5}$ ) baukij si 'they have heard us'. The principal exception to this is in BU̧BI (3I), e.g. tutapj 'we have shown', tubutapj 'we have shown him'. (Also in Zone B.)
10. The absence of an alternance $\mathbf{k} / \mathbf{g}$ in radicals except as the first radical consonant preceded by a nasal consonant. For example, in FAD) (66) ilak 'to say' but lage 'say!' (there are no non-fricative velar consonants in this position in this language), cf. gkum 'bellows', ngum 'hedgehog'; or in MPUDGWE (71a) ikamba 'to speak', but gamba 'speak!', cf. ŋkola 'shell', ngola 'whirlpool'. (Also in Zones B and C.)
ir. A seven-vowel system which appears to be characteristic of the whole zone. (Also Zone C.)
12. A single quantity only in radical vowels. (Also in Zones $B$ and C.)

## II. Peculiar Features

I. The small percentage of words in the standard vocabularies which can be related to those in languages of other zones. For example, in MYENE (71) and KELE (73) there are only 8 per cent. and in FAD (66) only 5 per cent. On the other hand, although FAD is not very closely related in other ways to the languages of Group 70, it has an additional 20 per cent. of words which can be related to the standard vocabularies of that group.
2. Unusual types of relationship between extended radicals and simple radicals. For example, in $\mathrm{BO}(42)$ there are these typical series of radicals, -kag- 'bind', -kegj'get bound', -keges- 'cause to bind'; -bom- 'hit', -bumi- 'get hit', -buma- 'be hit (by)'.
3. The existence of two different classes of nominals with distinct independent prefixes and governing different dependent prefixes, but both having their plural in the class with the prefix ba-. For example, in BEDGA(55) ukalj mune 'this speaker', pl. bakalj bane; mutu mone 'this person', pl. batu bane. Also in KUTA (74), e.g. nlungi muayibj 'the builder knows', pl. balungi bayibj; musjkj ayibj 'the child knows', pl. basjkj bayibj.
4. Peculiarities in the shape of nominal prefixes before stems commencing with a
vowel. For example, in FAD (66) the independent prefixes of the $\mathbf{u}$ a gender appear as $\mathbf{v i / I}$ before a vowel, e.g. vion lon 'antelope(s)', while in BASA (44) the dependent prefix of the bi class appears as gu before a vowel, e.g. bisel bi-nan 'our baskets', bisel gu-em 'my baskets'.
5. Obscurity in the formation of verbal bases by means of suffixes. For example, in KELE (73) there are four bases in common use, and this is how they appear for the three radicals -bu $\theta$ - 'break', -lay- 'count', and -lum- 'send': -bu $\theta \mathrm{a},-\mathrm{bu} \theta \mathrm{j}$, -bume, -buka; -lay, -lay, -layme, -laya; -luma, -lumj, -lumjme, lumjka.
6. The frequent occurrence of bases and stems with a final consonant. This is especially characteristic of Groups 40 and 60 . For example, in BASA (44) abjpot 'he spoke', abj̧kek 'he cut'; in BO (42) yjog 'elephant'; in YAU̧NDE (61) ateb 'refusal'. In the other groups the occurrence of final consonants is chiefly limited to nasals, e.g. DU̧ALA (24) jnun 'bird', KU'TA (74) gjuy 'ten'. 'This feature is much less noticeable in BEDGA (55) and MYENE (71), but even in the former a word like bayamu 'good people' may be heard in some positions as bayam.
7. The occurrence of the combination $n l$ in the speech sounds. An example from KUTA (74) has been given in section 3, and in $\mathrm{BO}(42)$ there is nlu 'head', and in FAD (66) nlo 'river'.

## Summary

The languages of this zone are different in many ways from those of other zones. In certain respects they appear superficially to have features which have been loosely called 'un-Bantu', but from the illustrations given it will have been seen that they fulfil all the criteria laid down in the second chapter. The distribution of the various differentia just described enables the languages to be assorted into groups, but as may be seen from the classified list, there are far too many gaps in our knowledge for the classification to be more than tentative.

## ZONE B

GROUP IO
II NZABI
12 Sebo
13 Tsogo
If Cira
15 Punu
16 LUMBU

GROUP 20
21 MBEDE
22 Mbamba
23 Tsaya

GROUP 30 GROUP 40
3 I FUMU 41 MFINU
32 Tege 42 BOMA
33 Boma
34 YAKA
35 TIO
36 1JEE
37 WUMU
43 TIENE
44 SAKATA
45 YANZI
46 Dgoli
47 Diŋa

48 MBUNU

## Characteristics of the Zone

As in the case of Zone $A$, here too there is a sufficient measure of linguistic relationship to make it useful to describe the features of the zone in detail.

## I. Common Features

1. The absence of any genders regularly containing words which indicate smallness or bigness. (Also in Zones A and C.)
2. The absence of an extension -u-, and, in most of the languages, of any true passive verbals. SAKATA (44) is an exception to this last statement, having many related radicals of the type -ful- 'open', -mfumful- 'be opened (by)'. (Also in Zones $A$ and C.)
3. The use of single independent nominal prefixes only. (Also in Zones $A$ and $C$.)
4. The use of extra independent nominal prefixes. For example in LUMBU (i6) gomikaba 'to the villages' can govern the agreement of a word with a stem like -otso 'all', as gootso 'everywhere towards'. In Group 30 there are three prefixed elements of this kind, e.g. in YAKA (34) kunzo 'to the house', munzo 'in the house', yanzo 'at the house', but whereas the first two can govern an agreement the third cannot. (Also in Zone H.)
5. The affixing of extra dependent prefixes immediately to the nominal without any use of -a- as in some zones. For example, in LUMBU (16) tsinzubu tsibaramfi 'the houses of the fishermen', or in DEE (36) leyimu lemokeo 'the song of the woman'. (Also in Zones $A$ and C.)
6. The occurrence of dependent tenses without the suffix *-E. This appears to be without exception in this zone, where dependent tenses use a base similar to one of the principal tenses. In most cases there is a distinct tone-pattern for the dependent tense, e.g. in MFINU (41) bamana (1--) 'they will finish', bamana (---) '(that) they should finish'. (Also in Zones A, C, and H.)
7. The fewness of the tense signs, some languages only using one base. The number of tenses is sometimes increased by the use of different tone-patterns, for example, in MFINU (4r) there are only four possible shapes for verbal bases, yet with these ten distinct tenses are made. (Also in Zone C.)
8. The rarity of true negative tenses, most of the languages using attached or selfstanding particles. For example, in YAKA (34) the particle pe is the sign of the negative statement, as in ataygi mukanda pe 'he did not read the book'; and in MFINU (4I) it is we, which does not come at the end of the sentence but immediately after the verbal, as in bakee: we yyüo 'they did not watch the spear'. LUMBU (16), on the other hand, does appear to have some negative tenses, e.g. atsefwa 'he is dead', asafwa go 'he is not dead', though even here the self-standing negative word go usually comes at the end of the sentence as well. (Also in Zones A and C.)
9. The use of an infix as a substitute object. Group 30 is peculiar in that there is no infix for the first person singular, e.g. in TIO (35) barmubere 'they hit him', but babere me 'they hit me'. (Also in Zones B and H.)
10. The absence of an alternance $k / \mathbf{g}$ in radicals except in first position preceded by a nasal consonant. For example, in MFINU (41) makaa 'charcoal' is not distinct from magaa, but gkana 'craw-craw' is distinct from ggana 'crocodile'. (Also in Zones A, C, and H.)
II. A five-vowel system, throughout the whole zone. (Also in Zone H.)
11. A single quantity only in radical vowels. In some of the languages of Group 40, however, there is a peculiar kind of vowel quantity in verbal bases which have no
second consonant. For example, in MFINU (41) oka 'to be', and oka: 'to refuse to reply' (this latter has to be distinguished from okaa: 'to fry'); or in SAKATA (44) ozo 'to wash' and ozo: 'to learn'. (Also in Zones A and C.)
12. Stress on the radical syllable. (Also in Zones C and H. .)
13. An alternance of tone on the radical. MFINU (t1) is exceptional in only having one possible tone-pattern for each tense, thus whereas in 'TIO (35) ofura 'to pay' and ofura 'to descend' have different tonal behaviour, in MFINU this could not happen. (Also in Zones C and H .)

## II. Peculiar Features

1. The almost equal proportions of the standard vocabularies related to those from each of the three adjacent zones, A, C, and H.
2. Unusual vowel sequences in extensions and suffixes. For example, in LUMBU (16) unemisi 'to wound', usugulu 'to wash'; in WUMU (37) obirisi 'to say', oswogozo 'to enter'; and in BOMA (42) osikene 'to surpass'.
3. The prefix to nomino-verbals, which is $\mathbf{u}$ - or o-. This is distinct from any independent nominal prefix, and governs agreements which are not the same as those for the extra independent prefix ku-. For example, in LUMBU (i6) uyaba 'to know'; in YAKA (34) usala 'to work'; and in MFINU (41) oba onde 'his beginning'.
4. The occurrence of double dependent prefixes in certain types of nominal, e.g. in YAKA (34) miti mimibwe 'good trees', manzo mamabwe 'good houses'; or in MFINU (4I) legko lilinene 'a big banana'.
5. The anomalous behaviour of the stem for 'two'. For example, in LUMBU (16) miogo mimioli 'two arms', but malu mamueli 'two legs'; and in WUMU (37) mili miele 'two legs', but mako molo 'two arms'. This does not always occur in Group 40, e.g. in MFINU (41) mitana mie 'two valleys', manjo mue 'two houses'.
6. The fusion of extensions and suffixes producing abnormal verbal bases, particularly in the eastern half of the zone. For example, in TIO (35) obie 'to ripen', obio 'to reject'; in MFINU (41) osibi 'to whet', osüe 'to squeak', oseu 'to sit', osio 'to slander'; in SAKATA (44) otui 'to lack', ozie 'to spread', otou 'to try', okuo 'to pull'; and in MBUNU (48) okue 'to go out'.
7. The existence of some unusual alternances, particularly in alveolar consonants in junction with -i-. For example, in LUMBU (i6) there is an alternance $1 / \mathbf{r} / \mathbf{d}$, e.g. bulili 'lips', biriri 'grass', badidi 'small people'; and in SAKATA (44) there is an alternance $\mathbf{z} / \mathbf{3} / \mathbf{j}$, e.g. ozila 'to enter', oziba 'to know', ojiga 'to bury'.

## Summary

Although this zone has some peculiar characteristics which are hardly to be found elsewhere in Bantu languages, yet on the whole it seems to occupy an intermediate position between the three neighbouring zones, A, C, and H. Nevertheless, not only is it necessary to retain it in order to avoid overloading Zones A and C, but there is a sufficient linguistic distinction shown by the bunching of the isoglosses along its boundaries to make Zone B a very useful set of groups.

ZONE C

| Group 10 | Group 30 | group 60 |
| :---: | :---: | :---: |
| i BUDGILI | 31 DGOMBE | 6ı MODGO-DK |
| 12 Bukongo . | 32 Buela | 6ra MODGGO |
| 13 Kaka | 33 Batij | 6rb DKUNDU |
| 14 Gundj |  | Gre Panga |
| 15 Pande |  | 6rd Tjtur |
| 16 Nzelij | GROUP 40 | Gre Bualj |
| 17 Kota | $41 B U A$ | 6if Bukala |
|  | $42 A \cap B A$ | 6 g Y Yailjma |
|  |  | 62 Lalja |
| GROUP 20 |  | 63 DGANDU |
| 21 BADGI-LOI | GROUP 50 |  |
| 2 1a LOf | 51 Mbesa |  |
| 2 b BUBADGI. | 52 SO | GROUP 70 |
| 21c Nụnu | 53 PUKI | 71 TETELA |
| 22 SEDGELE | 54 LUMBU | 72 Kıısu |
| 23 Tu̧mba | 55 KILI | 73 DKUTU |
| 24 Bulja | 56 Foma | 74 Yela |
| 25 NTUMBA, \&c. |  | 75 KELA |
| 25 a NTUMBA |  |  |
| 25 b Wangata |  |  |
| 25 c Mpama |  | Group 80 |
| 26 LUSEDGO |  | 81 Dejgese |
| 26a POTO |  | 82 Songomeno |
| 26b MPESA |  | 83 BUSODO |
| 26c MBU̧DZ |  | 84 Lele |
| 26d MADGALA |  | 85 WODGO |
| 26e BULUKI |  |  |
| $26 f$ Kaygana |  |  |
| 26g LIKU |  |  |
| 27 BЏJA |  |  |

use of the mu'ba gender for this purpose, e.g. muljbuki 'small parcel', pl. bamabuki, where the 'embedded syllables' - lij- and -ma- have no grammatical function, but belong to the stem of the word. (Also in Zones A and D.)
2. The absence of an extension - $\mathbf{u}-$, and in many cases of any true passive verbals. WODGO (85) does, however, have such an extension, which requires the suffix -o where other radicals have -a, e.g. ubela 'to cure', ubeluo 'to be cured'. BUBADG $\ddagger$ (2Ib) has the extension - jbu-, e.g. atumj 'he has sent', atumijbuj 'he has been sent', while BUIDGILI (ii) has -jb-, e.g. jkamba 'to bring', ¡kambjba 'to he brought'. There is, however, an extension -u- in a number of these languages, but this forms radicals which express the neuter of those with the extension -ul- (or -un-) and so may be held to correspond to the -uk- of other zones. For example, in NTUMBA (25) - $\mu \mathrm{mun}$ - 'waken (tr.)' - $\mu \mathrm{mu}$ - 'wake up'. (Also in Zone A.)
3. The use of single independent nominal prefixes only. There is one exception to this that has been noted in MPESA (26b) where nominals with monosyllabic stems have a double prefix, e.g. umutu 'person', pl. babatu. (Also in Zones A, D, and L.)
4. The absence of extra independent prefixes. In most of these languages elements which cannot govern an agreement are used where languages in other zones use extra independent prefixes. For example, in BUBADG $(2 \mathrm{Ib})$ the $\mathbf{u}$ - in u-ljkulu ljndaku 'on the house' cannot control any agreements. Similarly in TETELA (71) there is the element la- as in la-ygelụ 'to the village', and lu- as in lu-luy̧dụ 'in the house', neither of which can govern any agreement. (Also in Zone A.)
5. The affixing of extra dependent prefixes immediately to the nominal in Groups 20 and 30 . For example, in BUBADGI (2ib) bjlamba bjmukunzi 'the chicf's clothes'; in DGOMBE (31) mijo mjkumul 'the chicf's affairs'. In most of the other groups this does not happen, e.g. in $B U A\left(4^{1}\right)$ ybalị iak $\mu m \mu$ 'the chief's house', and in TETELA (71) lukuki laluu̧du̧ 'the door of the house', kuki jamvu̧dur 'the doors of the houses'. KELA (75) is exceptional in using -nda- to link the extra dependent prefix to the nominal, e.g. jsala indaasajgu 'a garden of maize', buca bundakumu 'the chief's head'. (Cf. the adjacent zones for both types of behaviour.)
6. The occurrence of true negative tenses in most of the groups. On the whole there is little regularity in the formation of negative statements in this zone, but here are one or two examples. BUDGILI (ii) uses the self-standing particle ka at the end of negative sentences in some cases but not in others, e.g. babuyiba ka 'they did not know', but even here there is distinction in form in the tense, cf. bayibakj 'they knew'. DGOMBE (31) affixes a negative clement to the tense, but this varies from tense to tense, e.g. bupalaka 'we liked', buipalaka 'we did not like', bupali 'we like', bupalịt 'we do not like'. DKU̧TU̧ (73) and WODGO (85) both have special negative tenses together with a negative particle at the end of the sentence, e.g. in DKU̧TY tumpeya 'we know', tupeyj ve 'we don't know', and in WODGO the same two sentences are bjitu ç̧mayiba, bjtu çayiba bo. (Cf. the adjacent zones for similar types of negative construction.)
7. The absence of an alternance $\mathbf{k} / \mathrm{g}$ in radicals except in first position preceded by a nasal consonant. In all the groups of this zone there are cases similar to this example from BUBADGI ( 2 Ib ) where lijkambu 'affair' is not distinguished from ligambu, but gkolj 'hostage' is distinct from ŋgolj 'string'. (Also in Zones A and B.)
8. A seven-vowel system throughout the whole zone. (Also in Zones A and D.)
9. A single quantity only in radical vowels. (Also in Zones A, B, and D.)
10. Stress on the radical syllable. (Also in Zone B.)
II. Lexical tone on both radical and suffixes. (Also in Zones B, D, and L.)
12. Absence of any tonal distinction in dependent prefixes. There are one or two exceptions to this similar to that found in DGOMBE (31), where the dependent prefix $\mathbf{i}$ - which is the singular corresponding to bj - often has a tone which is distinct from that of the prefix $\mathbf{i}$ - the singular of $\mathbf{j i}$-, e.g. bjpundu bjkymul ( - $\left.^{-}--\right)^{-}$'the
 houses', sing: ndaku ikumı ( -- $^{--}$). (Also in Zones B and D.)
13. Regularity of tone-pattern in all syntactical relationships. In general there is no tonal modification either to characterize or to indicate syntactical relationship; once the tone-pattern of a word is established in any context it is found to be the same in all other contexts. (Also in Zones D and L.)

## II. Peculiar Features

1. An abnormally high proportion of the standard vocabularies related to those of other languages within the zone. In some cases two languages, such as BUDGILI ( ri ) and BUBADGI ( 2 Ib ), have as much as 60 per cent. of the standard vocabulary related, but a more average example may be taken from $\mathrm{SO}(52)$ which has about 40 per cent. of its vocabulary relatable to that of other languages within the zone, but only 15 per cent. to languages in other zones; in addition, of this 15 per cent. only a mere 3 per cent. is peculiar to SO within its group.
2. A regular system of extensions in which the vowel of the extension -is- is different from that of -il-, e.g. in BUBADGI ( 2 Ib ) -tum- 'send', -tumjs- 'cause to send', -tumil- 'send to', -kom- 'be adequate', -komis- 'make adequate', -komel'be adequate for'.
3. The use of a prefix, both dependent and independent, as the singular corresponding to the prefix bj-, which consists of a vowel only. This appears to have only two exceptions in the whole zone, in SEDGELE (22) where the prefix is ki- (ke-), and in $\mathrm{SO}\left(5^{2}\right)$ where the prefix is ki i , or in some forms of the language hi-, e.g. kiturtu/ bjtutul 'wall(s)'. In every other language in the zone the corresponding prefix appears to be $\mathbf{i}-$, e.g. in BUBADG $!(2 \mathrm{rb}$ ) ibuka ine 'a large pounding mortar', pl. bjbuka bine. ('This is in direct contrast to what happens in some of the languages of Zone $B$, where the independent prefix is $\mathbf{i}-$, but the dependent prefix is ki-, e.g. in TIO (B.35) iju kinene 'a large pounding mortar', pl. biju binene.)
4. The occurrence of uncommon prefixes in nomino-verbals. Unlike the languages of Zone B, these have a variety of prefixes, but none appears to have the common ku-. For example, in BUDGILI (11) jbumba 'to hide', in DGANDU (63) ljtuma 'to send', and in KELA (75) jkenda 'to go', all of which behave like words in the singular of the $\mathbf{j} / \mathrm{ma}$ or $\mathrm{lj} / \mathrm{ma}$ gender. In DGOMBE (3I) there is bubala 'to speak', and in DKUTV (73) ntuka 'to draw water', while WODGO (85) and $B U A$ (41) have the special prefix $\mathbf{u}$ - like the languages of Zone B , e.g. WODGO, ulika 'to pass'; $B U A$, upaga 'to say'.
5. A similarity in the shape of the dependent and the independent prefixes. This is one of the most striking features of this zone, where, for example, the dependent
prefixes of the $\mathbf{m u} / \mathbf{m j}$ gender are usually $\mathbf{m u} / \mathrm{mj}$, as in DGOMBE (3I) mukanda mundi mubungi, 'his book is lost', pl. mikkanda mindi mibungj.
6. The impossibility of using a nominal as a sentence. Unlike the languages of most other zones, these almost always use some kind of copula in similar cases. Here are a few examples, in BUBADGI (21b) mubimbjayga ntagg ${ }^{\prime}$ the traveller is a fisherman', pl. babimbj banga bantangi; in DGOMBE (31) jmu mudj mukanda 'this is a book', pl. jmu mijd mịkanda ; in DGANDU (63) linne $\eta \mathrm{ku}$ lisala linnami 'this is my garden', pl. bane $\mathfrak{y k u}$ basala anami ; in KELA (75) j,se ayadj kumu 'his father is chief'. In most cases the copula has a dependent prefix, but $\eta \mathrm{ku}$ in DGANDU is an exception.
7. The use of a suffix - $\mathbf{i}$ (distinct from -i) in dependent tenses. Here are some examples of it, from BUDGILI (ir) batangi '(that) they should count'; from DGOMBE (31) tusoni '(that) we should write' (cf. tusonj 'we have written'); from DGGNDU (63) bukambi '(that) you should work' (cf. bukambj 'you have worked'); from TETELA (71) katuuki '(that) we should hear'. There are some exceptions to this in Groups 20 and 80, e.g. in BUBADGI (2 rb) nakjta '(that) I may fall'; and in WOIJGO (85) buyiba '(that) they may know'.
S. The use of the two verbal suffixes -j and -akj. (The common suffix of other zones, -jle, does not seem to occur anywhere in this zone.) There are a few exceptions to this, but the following examples will show approximately the distribution of the suffixes: BUDGILI (ri) -lub- 'say', alubakj 'he said'; NTUMBA (25) -yjn- 'hate', bayjnakj 'they hated'; DGOMBE (3I) -bal- 'say', bubalf 'we have said', bubalakj 'we were saying'; $B \zeta / A(41)$-men- 'sec', bamenj 'they saw'; SO (52) -luk- 'paddle', lilu̧kj 'I have paddled', lilykakj 'I paddled'; DGANDU (63) -uk- 'hear', aukakj 'he heard'; DKY̧TU (73) -kjts- 'descend', tukjtsakj 'we descended'; WODGO (85) -bul- 'strike', abulj 'he struck'. KILI (55) on the other hand uses - ikj and -aka, but not -akj, e.g. -kil- 'do', tukiljkj and tuakilaka 'we did', tukilj 'we have done'.
8. The regular occurrence of the 'inverted' relative construction. Since this is similar in most languages, onc example will suffice. In WODGO (85) the following are typical relative clauses, mukanda mumalomba bjnu 'the book you asked for', mijkanda mịmalomba binu 'the books you asked for'. In these and all similar cases the verbal agrees with the antecedent only, and the subject immediately follows the verbal.
ro. A simple consonant system with an almost complete syllabary. In a number of the languages of this zone many of the words which can be related to those in other languages occur with sounds which are almost identical with those used in the starred forms of common Bantu.

## Summary

The principal features of the languages of this zone are a simpler grammatical structure than is found in many others, coupled with a simple phonological and tonal system. This may, in fact, be taken to be one of the important areas of Bantu, displaying as it does fairly homogeneous linguistic characteristics which are different in many ways from those of other zones.

ZONE D
Grour io
II Mbole
12 Lengola
13 Mituku
14 Genya

GROUP 20
21 Balj
22 Amba
23 Kumu
24 Songola
25 LEGA
26 Zimba
27 Bangubangu
28 HOROHORO

GROUP 30
31 PERI
$32 B] R A$
33 Huku
grour 40
41 KONZO
42 NDANDI
43 Nyanga
group 50
51 HUNDE
52 Havu
53 Nyabungu
54 BEMBE
55 Buyi
56 Kabwari

GROUP 60
61 NYARUANDA
62 RUNDI
63 FULIRO
64 SUBI
65 HAD̄GAZA
66 HA
67 Vinza

## Characteristics of the Zone

Unlike the three zones already described, this one is of little linguistic significance. 'There are reasons for not placing any of these groups in the neighbouring zones, but few, apart from geographical contiguity, for making a zone out of them. Moreover, apart from Group 60, our knowledge of the languages of this zone is so fragmentary that even the grouping is in most cases very tentative. For these reasons a mere outline of the distribution of some of the characteristics is all that can be attempted at present.
I. There is insufficient data for the establishing of standard vocabularies for these languages. From the scanty word-lists which are available some of the words which occur here appear to be related to those in languages to the west rather than to the east, e.g. in BEMBE (54) mbuka 'village', mtuba 'six', and -bund- 'fight' all correspond to similar words found in Group C.20. In the Sub-Bantu language Amba (22) the vocabulary is almost the only thing which entitles it to be put in the list, but this agrees as to both sounds and tones with many words found in the languages of Zone C.
2. Most of the languages appear to have a gender which regularly contains words indicating smallness, usually ka/tu. BEMBE (54), however, seems to have a less usual one hi/bu, e.g. hibuka/bubuka 'small village(s)' (cf. mbuka/mabuka 'village(s)').
3. In some of the more northerly languages of this zone there are some unusual genders. For example, Balj ( 2 r ) in addition to the commoner $-/ \mathbf{b a}, \mathrm{li} / \mathbf{m a}, \mathbf{i} / \mathbf{b i}$, $\mathbf{k u} / \mathbf{m a}$ has others containing words like these, $\mu \mathrm{nzj} / \mathbf{k} \mu \mathrm{zj}$ 'village(s)', libu/mubu

4. In Groups 10, 20, 30 , and 50 independent nominals have single prefixes only.

In Group 40 there are double prefixes in which the first part is $\mathbf{o -}$, e-, or a-, e.g. in NDANDII (42) omubiri/emibiri 'body(s)'. In Group 60 there are double prefixes with $\mathrm{u}-$, $\mathrm{i}-$, or $\mathrm{a}-\mathrm{as}$ the first part, e.g. in HA (66) umugezi imigezi 'river(s)'.
5. In most cases the prefix of nomino-verbals is ku- (or uku-), but in Group 40 it is eri-, e.g. in KONZO (41) erilijka 'to arrive'. In BEMBE (54) there is prefix uwhich governs its own special dependent prefix u-, e.g. utenda ube 'your speaking'.
6. Most of the languages in this zone have threc extra independent prefixes, as e.g. in HOROHORO (28) haykone 'at the river', kuykone 'to the river', muykone 'in the river'. In LEGA (25) there is the less usual prefix ga- where others have ha-, e.g. galuyzj 'at the river'. The languages of Group 60 also have a fourth prefix of this kind, i-, which is of limited usage, e.g. in HA (66) ibuami 'in the realm'.
7. The extra dependent prefix is added to the nominal in Groups 40 and 60 without any modification of the double prefix, but there is the element -a- in Group 60, whereas in Group 40 this is not always used. For example, in NDAND ( (42) ebjsandu bjomuntu 'the man's fcet' (cf. omuntu 'man'), ebjisandu bjwe 'his feet', but in HA (66) ibitebe biaumuntu (pr. byoomuntu) 'the man's stools', ibitebe biage 'his stools'. In the Sub-Bantu languages of Group 30, since there is no clear system of classes of nominals, there are naturally no dependent prefixes, e.g. in $P E R /$ (31) isu ndae or ae 'his cye(s)', miima ndae or ae 'his heart'.
8. Nominals are used as sentences in some of thesc languages. For example, in HOROHORO (28) ygoji gonsoga 'the rope is a good one', pl. migoji yemisoga, cf. ngoji nsoga 'a good rope', pl. migoji misoga. 'The languages of Groups 40 and 60 , however, prefix ni- to the nominal stripped of the first part of its double prefix, e.g. in KONZO (41) nilunyongo 'it is a big pot'.
9. The dependent tenses mostly have a suffix -e, e.g. in LEGA (25) gulole '(that) you may look'. The Sub-Bantu languages of Group 30 have $-\mathbf{i}$, which is distinct from $-\mathbf{i}$, e.g. in $P E R I$ (3I) aupi '(that) he may know', aupi 'he knows'.
10. The suffix *- TLE appears to occur in most of the groups, apart from the SubBantu languages. For example, in LEGA (25) aatendjle 'he said'; and in SUBI (64) tuazimie 'we got lost'.
11. Apart from Group 40, most of these languages have a fairly simple tense system, and this is one of the most important features which distinguishes those in Group 60 from Zone E. For example, HA (66) only has three main tenses, by means of which it is possible simply to refer, without time words, to two different times in the past and one in the future, as tulaabonie 'we saw', tulaabona 'we have just seen', tulabona 'we shall see'.
12. There are true negative tenses in most languages in this zone outside Group 60 , e.g. in KONZO (41) mutuagonyire 'we slept (yesterday)', neg. muatutegonya. In Group 6o, however, a negative element may be prefixed, or infixed, to every affirmative tense, e.g. in SUBI tuatemie 'we cut', nhituatemie 'we did not cut'.
13. The relative clause is usually constructed without any linking word. A typical example may be seen in the following sentence from LEGA (25), bibjla biguamonine biakolokile 'the palm-trees you saw fell down'.
14. In contrast to the languages of Zone $C$, there is usually an alternance $g / k$ in radical consonants in these. For example, in many of the languages -gul- 'buy' is distinct from -kul- 'grow', in BEMBE (54), however, this alternance is missing,
probably owing to the fact that whereas the -g-of other languages is represented by $-\mathrm{k}-,-\mathrm{k}$ - is represented by zero, and these two radicals appear as -kul- 'buy' and -ul- 'grow'.
15. There is a seven-vowel system in Groups $10-50$ and a five-vowel system in Group 60.
16. There are two quantities of vowel in the radical in Groups 20, 40, and 60, e.g. in HOROHORO (28) ygoko 'chicken' has a quantity distinct from that of ggooko 'shore', while in HA (66) the quantity of -kul- 'grow' is different from that of -kuul'take out'.
17. There are two quantities of vowel in extensions in some languages, e.g. in HOROHORO (28) the quantity of the vowel in the extension of -kusuuk- 'leak' is distinct from that in -guruk- 'jump'.
18. There appears to be an alternance $u / o$ in nominal suffixes throughout the whole zone, which is in contrast to the whole of Zone C, except Group C.50. For example, in Kumu (22) the suffix of ndabo 'house' is distinct from that of mbaku 'knife'.
19. In Group 60 there are some peculiar combinations of consonants in the pronunciation of syllables which contain a consonant and two vowels. For example, in NYARUANDA (6r) diumuana '(isuka "hoe") of the child' is heard as dgumyana, while ibiatsi 'grass' is pronounced ibjatsi.
20. In Groups 40 and 60 the alternances between voiceless and voiced plosives are masked in junction with a nasal consonant. For example, in NDANDI (42) olukimba 'cloth', pl. esjongimba; or in FULIRO (63) tukagira 'we did', ygagira 'I did'; tutakagira 'we did not', ndakagira 'I did not'.
21. In Group $60-\mathrm{k}$ - immediately preceding a radical commencing with a voiceless plosive is pronounced $-g_{-}$, e.g. in HA (66) ikintu ikito 'small thing', pr. ikintu igito.

ZONE E

GROUP IO
I I NYORO
12 TORO
r 3 NYADKOLE
14 CIGA
15 GANDA, \&x.
15a GANDA
r 5 b Sese
16 SOGA
17 GWERE
18 NYALA

GROUP 20
21 NYAMBO
22 HAYA
22a ZIBA
22b Hamba
22c Haŋgiro
22d Nyakisaka
22e Yoza
$22 f$ Endangabo
22 g Bumbira
22h Mwani
23 DZINDZA
24 KEREBE
25 JITA

GROUP 30
3 I MASABA
3 ェ G GISU
3ıb KISU
3ıc BUKUSU
32 HADGA
32a WADGA
32b Tsotso
33 NYORE
34 SAAMIA
35 NYULI

THE BANTU LANGUAGES


## Characteristics of the Zone

The placing of the limits of this zone has been done on a linguistic basis, but it is difficult to describe exactly the features which are peculiar to the zone, since there are exceptions to almost every one. There are many important languages in these groups, and there is a considerable amount of reliable data available, so the grouping is much less tentative than in some other zones. It is most convenient then to take in turn the differentia which determined the grouping and describe their occurrence.

1. The standard vocabularies contain a large proportion of words which can be related to those found in languages of other zones. In the case of KIKUYU (5I), for example, it is about 20 per cent.
2. Apart from Groups 60 and 70 , each language makes use of genders which regularly contain words indicating smallness or bigness. For example, DZINDZA (23) has akahuli/utuhuli 'small egg(s)', (cf. ihuli/amahuli 'egg(s)'), and idzoka/ amadzoka 'big snake(s)' (cf. indzoka/indzoka 'snake(s)'); KISU (3Ib) has kabono/ bubono 'small knife(s)' (cf. kumubono/kimibono 'knife(s)'), and kuusaala/kimisaala 'big tree(s)' (cf. siisaala/biisaala 'tree(s)'); NATA (45) has akabuhi/ibjbuhi 'small stone(s)' (cf. rịbuhi/amabuhi 'stone(s)'), and ugusijrj/amasịị 'big rope(s)' (cf. urusijri/casijri 'rope(s)').
3. In Groups $10-40$ independent nominals regularly have double prefixes, mostly of the type with $0-, \mathrm{e}$-, and a- as the first part. For example, in KEREBE (24) ekintu 'thing', pl. ebintu. In Group 40 the vowels in certain prefixes are indeterminate, being heard as i or $\mathbf{e}(\operatorname{and} \mathbf{u}$ or $\mathbf{0}$ ) according to the vowel of the radical, e.g. in GUSIf (42), ikirugu/ibirugu 'chair(s)', ekenene/ibinene 'big one(s)', umurimu/imirimu, 'work(s)', omogeka/emegeka 'mat(s)'. In the other groups the independent prefixes are always single.
4. The prefix of nomino-verbals is ku- (or uku-, \&cc.) in all the groups of this zone except 60 , where it is $\mathbf{i}-$, which behaves like the singular prefix of the $\mathbf{i} / \mathbf{m a}$ gender, e.g. RWO (6I) illa 'to look at', or GWENO (65) iruma 'to send'.
5. Extra independent prefixes occur in Groups 10-40, but not in Groups 50-70 which have an extra nominal suffix. Here are examples of the suffix, in KIKUYU (5I) mbembe-jni 'among the maize' (cf. mbembe 'maize'), in KAHE ( $6_{\psi}$ ) numbe-ny 'at the house' (cf. numba 'house'), CONYI ( 72 c ) cisima-ni 'at the well' (cf. cisima 'well').
6. Nominals are used as sentences throughout the zone. In GANDA (15) there is a heavier prefix, e.g. gyemikeka 'they are mats' (cf. emikeka 'mats'); in ZIBA (22a) a shorter prefix, e.g. mahuli 'they are eggs' (cf. amahuli 'eggs'); in NATA (45) the first part of the prefix is replaced by a nasal consonant, e.g. mbitumbi 'they are stools' (cf. ibitumbi 'stools'). In many cases ni- is prefixed to the nominal, e.g. in WADGGA (32a) as in niemisaala (pr. neemisaala) 'they are trees' (cf. emisaala 'trees'); and in GIRYAMA (72a) nimacuyba 'they are oranges' (cf. macuyba 'oranges'). In others the nominal has the same form as in other sentences, e.g. in BUKUSU (3Ic) kuno kumukunda kuajge 'this is my garden' (cf. kumukunda 'garden'); or in DIGO (73) higa majembe 'these are hoes' (cf. majembe 'hoes').
7. A suffix -e is characteristic of dependent tenses but by no means confined to them. For example, in KURIA (43) turente '(that) we should bring', turaarente 'we are going to bring' (cf. turaarenta 'we are bringing'); or in SAAMIA (34) kutandule '(that) we should tear', kunatandule 'we are going to tear', kuakatandule 'we shall tear (tomorrow)'. GUSII (42) is exceptional in having an indeterminate vowel as a suffix in its dependent tenses; this is heard as -e if the radical has -e- or -o- but otherwise as -i (distinct from -ij), e.g. tuguli ( $-^{--}$)'(that) we should buy' (cf. ntuguli ( $--^{-}$) 'we shall buy'), and tutebe ( $\left(_{--}{ }^{-}\right.$' '(that) we should say' (cf. ntutebe $\left(--^{-}\right)$' 'we shall say'). 'The principal exception to this is in Group 60 , where the sign of the dependent tenses is sometimes an infix with the suffix -a.
8. The suffix *-ILE occurs in most of the zone, but is absent in Group 60 and much of 70. RAGOLI (41) is unusual in this zone in having -i but not -ile, e.g. -tul'forge', kutplj 'we have forged'. In Group 50 there are the two suffixes -ile and -iite, e.g. in EMBU (52) -bul- 'hit', nitubuliite 'we have hit', nitubulịle 'we hit (earlier)'.
9. In much of this zone there is an almost unparalleled wealth of tenses. In Groups ro-50 it is frequently possible to refer, without the use of time words, to four different periods of past time and an equal number of future time, e.g. in NYORE (33) there are the following eight tenses of -sab- 'ask': kuasaba ( $\mathbf{-}^{-}$) 'we asked (long ago)'; kuasabire ( - - $^{-}$) 'we asked (yesterday)'; kusabire ( $--^{-}$) 'we asked (this morning)', (cf. kusabire ( $\mathbf{-}^{---}$) 'we have asked'); kuakasaba (----) 'we have just asked'; kulaasaba ( - ---) 'we are just going to ask'; nakusabe ( - - $^{--}$) 'we will ask (later to-day); kuakasabe ( _---) 'we will ask (to-morrow)'; kulisaba ( $-\mathbf{-}^{--}$) 'we will ask (after to-morrow)'.
10. Apart from Groups 30,40 , and 60 there are true negative tenses in most languages. For example, in JITA (25) -ta- is the negative sign, but the negative of ecikora 'we are working' is citakukora, whereas there is no form like cikukora in use. Here are two examples from languages which have no negative tenses, in KISU ( 3 rb ) the negative sign is si . . . ta, e.g. kulikula kamaki 'we shall buy eggs', neg. sikulikula kamakita; and in WUNJO (62b)lulewona nguku'we sawa chicken', neg. lulewona ŋguku pfo, shows the sign of the negative to be a self-standing word pfo.
11. Few of the languages in this zone make use of a copula -li in the formation of principal tenses. The chief exception to this is in Group 30, where forms like this occur, GISU (31a) kuli kutema 'we are cutting', but even here SAAMIA (34) agrees with HADGA (32) and NYULI (35) in not using -li in the corresponding tense, which is kutemanga. The principal use of -li is in clauses with a dependent time reference, as in the following example from DZIND7.A (23): nitukora 'we are working', tuakoraga 'we used to work', tuali-ho nitukora 'we were working (at that time)'.
12. There are one or two unusual consonant alternances in this zone. In Group 30 there is $\mathbf{k} / \mathbf{k}$ in all positions, e.g. KISU (3 rb ) katiti 'small ones' (agrecing with kamakobi 'debts'), katiti 'small one' (agreeing with kabano 'small knife'). In Groups 30 and 40 there is $\mathbf{g g} / \mathbf{y}$ in second radical position, e.g. RAGOLI (4r) -dongok- 'be told in detail', -donok- 'stroll'; and also the uncommon alternance $g / \mathbf{y}$ in first radical position in junction with a nasal consonant, e.g. RAGOLI (41) evgono 'crown of head', eŋŋono 'mark of animal's sleeping-place'. In Group 60 there are some peculiar alternances of flapped and lateral consonants in junction with $-\mathbf{i}-$, e.g. WUNJO (62b) irika 'to claim', irika 'to clothe', i.sika 'to send', all of which have identical tonal behaviour.
13. There is a seven-vowel system in Groups 40 and 50. Elsewhere there is a fivevowel system except in Group 10 , where languages $1 \mathrm{I}-14$ have a seven-vowel system and ${ }_{5} 5^{-1} 7$ a five-vowel system.
14. There are two quantities of radical vowel in the languages of Groups 10-50, but only one in Groups 60 and 70.
15. The alternance between voiced and voiceless plosives is masked in junction with nasal consonants in Groups 30-50. For example, in WADGA (32a) olukata/ tsingata 'pipe(s)', olukoba/tsingoba 'belt(s)'; or in RAGOLI (4I) ululahi/tsjindahi 'good one(s)' (agreeing with ulubaho/tsimbaho 'board(s)'), ulutanya/tsjndanya 'red one(s)' (agreeing with the same words).
16. When the second radical consonant is a nasal compound, there is no distinction between a voiced plosive and its corresponding nasal, in junction with a nasal consonant in first position, in most groups except 60 and 70 . For example, in RAGOLI (41) inneygo 'measure' is not distinct from indengo.
17. In Groups 40 and $50-\mathrm{k}$ - in a preradical syllable is heard as $-g$ - if the following consonant is a voiceless one, e.g. in NATA (45) ikikulu 'big one' (agreeing with ikjgeso 'knife') is heard as igikulu. Similarly in KIKUYU (5I) the very name of the language is pronounced gikuyu.
18. Apart from the two languages JITA (25) and NATA (45), all the languages of the zone make use of lexical tone, and many of them, including even JITA, use a distinction of tone-pattern to differentiate tenses which are otherwise similar, e.g. in JITA (25) cialiga ( _-_) 'we were (yesterday)', cialiga ( - - ) 'we were (before yesterday)'.
19. In Groups 50-70 the tonal system is often very complicated, and it is frequently difficult to relate the speech-tones to the essential tones of the language.
20. In Group 50 the extra dependent prefixes agreeing with nominals in the singular of the $\mathbf{m u} / \mathrm{a}$ gender, the plural of the $\mathrm{mu} / \mathrm{mi}$ gender, and the singular of the $\mathbf{n} / \mathbf{n}$ gender have a different tonal behaviour from those agreeing with nominals in
 stranger's load', mirjgo iamugenj ( _-----) 'the stranger's loads'.

## Summary

Although these seven groups have very little in common, yet they do form a convenient zone for reference. The one which has least in common with the others is Group 60, but it would be still less suitable to put it into either of the adjacent zones.

## ZONE F

| GROUP 10 | group 20 |
| :--- | :--- |
| II TODGWE | 21 SUKUMA |
| I2 Bende | 22 NWAMWESI |
|  | 22a NYANYEMBE |
|  | 22b Takama |
|  | 22c Kiya |
|  | 22d Mwerj |
|  | 23 SUMBWA |
|  | 24 KIMBU |
|  | 25 BUDGU |

GROUP 30
31 NILAMBA
32 RIMI
33 LADGI
34 Mbugwe

## Characteristics of the Zone

This zone is made up of three fairly closely related groups, and most of its boundaries are sharply defined by the coincidence of several isoglosses. Since, however, there are few features which are really peculiar to the zone it is simplest to describe the distribution of the most important characteristics in turn.
r. There are genders in each language which regularly contain words indicating bigness or smallness. For example, in TODGWE (in) kanyonyi/tunyonyj 'small bird(s)'; in LADGf (33) kalufjo/tulufjo 'small knife(s)'; RIMI̧ (32) ijoka/majoka 'big snake(s)' (cf. njoka/njoka 'snake(s)'.
2. Independent nominals have double prefixes in most of these languages only when determined. For example, in SUMBWA (23) amaguta matimbu 'the oil is good', but tuagula maguta 'we bought some oil'. BUDGU (25) is an exception, e.g. unti/imịti 'tree(s)'.
3. Each language uses three extra independent prefixes, except RIMI (32) which appears to have only one u-, e.g. umoygo 'in the river', unjia 'on the path', unyumba 'to the house'.
4. Usually ni- is prefixed to nominals used as sentences, but this is by no means unexceptional. For example, in TODGWE (ir)nimakala or makala 'it is charcoal'; SUKUMA (21) ulu lugoye 'this is a rope'; RIMỊ (32) $\mathfrak{j j j}$ mburị 'these are goats'; LADGİ (33) ulu niludjhj 'this is a rope'.
5. The singular class which has the dependent prefix li-has $\mathfrak{j}$ - as its independent prefix. For example, in TODGWE (II) jbala 'garden'; KIMBU (24) jgi 'egg'; LADGf (33) $\mathbf{j k} \boldsymbol{k} \mathbf{f a}$ 'bone'.
6. A suffix -jre or -ile occurs in each language of the zone.
7. The element -ag- or - ŋga which is used in tenses referring to actions in progress also occurs in tenses which do not have this kind of reference. For example, in

TODGWE (ir) -bumb- 'fill', tuakabumbanga 'we filled'; tuabumbanga 'we have just filled'; or in SUKUMA (21) tuahambaga 'we have just planted'.
8. In most of these languages there is a complicated but unbalanced tense system, for example, LADGI (33) has four distinctions of past time expressed by its tense system, but only one future.
9. The copula is used as a tense formative in a way different from that noted in Zone E. For example, in KIMBU (24) kuali kuabonjle 'we saw (long ago)'; in LADGI (33) kutaha turi majj 'we will draw water'; in SUKUMA (21) tutaali kuzenga 'we are still building' (where -ta- is a 'negative' element).
10. There are true negative tenses in most of the languages; SUKUMA (21) characteristically has seven simple affirmative tenses but only two simple negative tenses. Here are two other examples, in LADGI! (33) tuatungjre 'we have just built', neg. situkutunga (note the form tukutunga does not appear to be used in the affirmative); in RIMI (32) nakurema 'we shall cut', kurjurema 'we shall not cut' (note there is no affirmative tense with the sign -u- -a).
if. The consonant alternances of these languages do not present many peculiarities, except in the case of RIM! (32), which has the unusual alternance $\mathrm{F} / \mathrm{r} / \mathrm{s}$ in which the first sound is flapped, the second a voiceless one-rap ' $r$ ', and the third a voiced uvular fricative. This occurs in all positions.
12. There is a seven-vowel system in every language of this zone.
13. There are two quantities of vowel in the radicals throughout the zone, e.g. in TODGWE (r1) -teel- 'throw', -tek- 'cook', LADG ${ }^{[ }$(33) -loot- 'dream', -lok- 'pass'.
14. There are unusual types of vowel coalescence in these languages, where neither -a- nor -i- in junction with another vowel is heard in speech. For example, in SUKUMA (2I) naaiba 'I forgot' is heard as niiba.
15. Apart from BUDGU (25) the junction of a nasal consonant and a voiceless plosive does not correlate with any masking of the alternances. For example, in TODGWE (ri) -kulu 'big', mbusj $\eta k u l u$ 'big goat'; in RIMI (32) -kupi 'short', ŋgohe kupi 'short ropes'; but in BUNGU (25) yguku 'chicken', cf. akakuku 'small chicken'.
16. Tone is used lexically in all the languages except LADGI (33), but even here it is used grammatically. There are frequent examples of tenses which are only distinguished by a difference of tone-pattern, e.g. in SUKUMA (21) tuabalaga ( - - - ) 'we counted (earlier to-day)', tuabalaga (--.-) 'we used to count'; or in LADGI (33) tuasakjre ( --- $)^{-}$'we sought (to-day)', tuasakire ( _-_-) 'we sought (yesterday)'.
17. Verbal prefixes do not all have the same tonal behaviour. Those agreeing with mu- (sing. of ba-), mi-, and n- (sing.) have a behaviour different from all the others. For example, in KIMBU (24) nyungu ialimilaga (-- ----) 'the pot is lost', nyungu jjalimilaga (-- ---- ) or in Ņ̧LAMBA (3x) mugunda ualimplue (--- ---) 'the garden is cultivated', migunda ialimilue ( - -- .-.-.) 'the gardens are cultivated'.

## Summary

As already noted, the boundaries of this zone are well defined, but it will be seen by comparing its characteristics with those of the adjoining ones that no one set of differentia can operate on all sides. Thus it is sharply distinguished from Zone F by
its seven-vowel system, its use of two-vowel quantities, and its use of lexical tone in radicals, as well as by certain grammatical features. From Zone E, however, it has to be distinguished by such features as the use of single nominal prefixes, and several characteristics of the tense system.

|  | ZONE G |  |
| :---: | :---: | :---: |
| GRoup 10 | Group 40 | group 60 |
| II GOGO | 41 Tikulu, \&c. | 6 6 SADGO |
| 12 Kagulu | 4 ra Tikulu | 62 HEHE |
|  | 41 b Mbalazi | 63 BENA |
|  | 42 SWAHILI | 64 PaDGWA |
| Group 20 | 42 amU | 65 K Kilda |
| 21 TUBETA | 42 b MVITA | 66 Wanji |
| 22 A ȘU | 42 c MRIMA | 67 Kisi |
| 23 SAMBAA | 42d UNGUJA |  |
| 24 BONDEI | 43 PEMBA, \&rc. |  |
|  | 43a PHEMBA |  |
|  | $43^{\text {b }}$ TUMBATU |  |
| GROUP 30 | $43^{\text {c }}$ HADIMU |  |
| 3 2IGUULA | 44 KOMORO |  |
| 32 DHWELE | 44a DGAZIJA |  |
| 33 ZARAMO | 44 b Njuani |  |
| 34 DGULU |  |  |
| 35 RUGURU |  |  |
| 36 Kami | Group 50 |  |
| 37 KUTU | $5_{51}$ POGOLO |  |
| 38 VIDUNDA | 52 Ndamba |  |
| 39 SAGALA |  |  |

## Characteristics of the Zone

Some of the groups in this zone are more closely related to each other than are others; in particular Group 60 is one on its own, but this is the most convenient zone into which to put it. Since there are few if any features peculiar to this zone, it is simplest to describe the differentia one by one.

1. Although there is insufficient data for the compiling of many standard vocabularies, it seems very likely that there is a rather high proportion of vocabulary common to some of the groups.
2. Genders regularly containing words which express bigness or smallness occur in almost every language, but the form of the prefixes varies greatly. For example, in TUBETA (21) kasuke/tusuke 'small cloth(s)' (cf. suke/suke 'cloth(s)'); in ASU (22) $\mathrm{kabuji} / \mathrm{bubuji}$ 'small goats' (cf. mbuji/mbuji 'goat(s)'; in ZIGULA (3r) kagola/wagola 'small knife(s)' (cf. ŋgola/ygola 'knife(s)'; in RUGURU (35) ilatsoka/ipfitsoka 'small snake(s)' (cf. intsoka/intsoka 'snake(s)'); and in HEHE (62) akafugu/utufugu 'small pot(s)' (cf. ikifugu/ififugu 'pot(s)').
3. In Groups 10, 30 , and 60 independent nominals have double prefixes, although
in Group 30 this is not the invariable rule. For example, in KAGULU (i2) imusehe: awasehe 'cld person(s)'; in KUTU (.37) uluzabi zinzabi (or luzabi/inzabi) 'rope(s)'; in SADGO (61) ilipisj/amapisj ' $\operatorname{cgg}(\mathrm{s})$ '.
4. There are extra independent prefixes, execpt in parts of Groups 20 and 30. For example, in TUBETA (21) nyumbeni 'at the house' (cf. nyumba 'house'); in SAMBAA (23) nyumbai 'at the house' (cf. nyumba 'house'); and in DGGAZIJA ( $4+$ a) where there is a prefixed element $o-$ as well as a suffix, as in osindoni 'at the market' (cf. sindo zindo 'market(s)') and in onyunguni 'in the pot', (cf. nyupgu 'pot').
5. The nomino-verbal prefix is ordinarily ku- (or uku-), but in DGAZIJA (4ta) it is u-, e.g. uhula 'to buy'; and in SADGO (61) it is ki- (distinct from the singular prefix of the isi/ifi gender), e.g. kisenga 'to build'.
6. The first person plural prefix which is very useful in some groups as a distinguishing feature is useless here since it varies so greatly. For example, in SAMBAA (23), BONDEI (24), and SADGO (6r) it is ti-, in DGGZIJA (44) it is ri-, but in Group io and in DHWELE (32) and IDGULU (34) it is ki- or ci-, whereas in most other cases it is tu-.
7. Nominals are used as sentences in most languages of this zone, usually with some modification of the prefix. For example, in KAGULU (iz) a single prefix is used, as in ino suke inoga 'this is a good cloth' (cf. isuke 'cloth'), as also in $\underline{\underline{K}}$ IDGA (65), e.g. aka masuta 'this is oil' (cf. amasuta 'oil'). In DJGAZIJA (44a) there is a prefixed element, e.g. ngomro mhu 'it is a big river' (cf. mro 'river'); while sometimes the prefix is unchanged, e.g. in KUTU (37) gano gamafinga gangu 'these are my eggs' (cf. gamafinga 'cggs'), or in PHEMBA (43a) nti ule lle 'this tree is a long onc', (cf. nti lle 'a long tree'). The regular use of the prefixed element ni- is apparently confined to Group 20 and SWAHILI (42).
8. The suffix *-ILE occurs in most languages except those in Groups 20 - 0 . A peculiar feature of some of these, however, is that although this suffix does not occur in affirmative tenses, it does in negative tenses, e.g. in VIDUNDA (38) hatukolile 'we did not work', where the base -kolile is not used in any affirmative tense. HEHE (62) is unique in this zone in using -ile and -ite almost interchangeably, e.g. -long'speak', tualongite or tualonzile 'we spoke'.
9. A suffix -e is used in dependent tenses in all the languages, but its use in principal tenses is very rarc.
10. In parts of Group to an indeterminate vowel occurs as a suffix, e.g. in TUMBATU (43b) -tambuy- 'understand', nitambuyu 'I have understood', -toygoy'speak', nitongoyo 'I have spoken', or in DGAZIJA (44a) -som- 'read', risomo 'we have read', -fung- 'shut', rifungu 'we have shut'.
II. There are negative tenses in most groups, e.g. KAGULU (12) ciaponhola 'we pierced', neg. cisaponhole ; TUBETA (21) tuhira 'we shall work', neg. setukahire ; DJGAZIJA (44a) ggariwahao 'we are building', neg. kariciwaha ; KIJGA (65) yptuik kona 'we are going to lie down', neg. situkakone. The principal exception is GOGO (II) which regularly prefixes si-to affirmative tenses as the sign of the negative.
11. In many languages of this zone there is no formal sign for relative clauses, word order alone indicating the nature of the syntactical relationship, e.g. in DGAZIJA (44a) hawono esio nahula 'he has seen the book I bought' (cf. nahula esio 'I bought a book'). ASU (22) uses a difference in tone-pattern to characterize relative
clauses, e.g. mugeni eneza ( -- - $^{-}$) 'the stranger who will come' (cf. mugeni eneza (..- - --) 'the stranger will come'). KAGULU (i2) is unusual in having tenses in relative clauses which do not occur in main clauses, e.g. gano mabiki gonihandile 'these are the trees I planted' (go- is a special relative prefix, and the base -handile is apparently not used in principal tenses). The relative construction used in SWAHILI (42) is not characteristic of this zone but of Group E.70.

I3. Most of the languages of this zone have simple consonant alternances.
14. There is a five-vowel system throughout the zone, except in SADGO (61) and KIDGA (65), which have a seven-vowel system.
15. Apart from Group 60, which has two quantities of vowel in radicals, a single quantity is characteristic of the zone.
16. There is a tendency to some form of penultimate prominence in certain languages of Groups 20 and 30 . This feature, which is somewhat rare in Bantu languages, is, however, regularly present in the form of stress only in SWAHILL (42); even in the PEMBA Dialect Cluster (43) it is by no means the general rule, e.g. in TUMBATU (43b) he'neneza 'he has not replied', ako'za 'he will sell'.
17. In Groups 30 and 40 the junction of a nasal consonant with a voiceless plosive is sometimes heard in speech without the plosive, but with strong aspiration, e.g. in RUGURU (35) -kulu 'big', inguwo inhulu 'a big cloth'; occasionally a voiceless nasal is heard instead of the aspirated nasal. In Group 60 there is frequently neither a plosive nor any aspiration in the pronunciation of such junctions, e.g. in BENA (63) -tali 'tall', indege inali 'a tall bird'.
18. Lexical tone on the radical occurs only in Groups 20 and 60 , while nominal suffixes have a lexical tone only in Groups io and 20 . There is grammatical tone in each of these three groups; e.g. in GOGO (in), where the fact that any given tense of a certain shape can only have one tone-pattern shows that there is no lexical tone on the radical, there are three tenses distinguished by tone-pattern alone, as ciawuya ( - - ) 'we returned (long ago)'; ciawuya ( - $^{--}$) 'we returned (yesterday)'; ciawuya $(-)^{-}$' 'we have just returned'. In Groups 30 and 40 there is neither lexical nor grammatical tone in most cases.

## Summary

There is a clear boundary between parts of this zone and the adjacent ones, as, for example, between Group G.10 and Group F.30, or between Group G. 40 and Group P.io. In other cases, however, the relationship across the zone boundary is much closer, as between Group G. 20 and Group E. 70 ; nevertheless a considerable measure of linguistic homogeneity is achieved by the formation of this zone.

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16e N.E. KODGO
16f KODGO
16 g S. KODGO
16h ZOMBO

GROUP 20
2 I NDODGO
22 Mbamba
23 Sama
24 Dgola
25 Bolo
26 Soŋgo

GROUP 30 GROUP 40
31 YAKA 41 Mbala
32 Suku 42 HUDANA

33 Hurgu
34 Tembo
35 Mbangala, \&ic.
35 a Mbaygala
35b Yongo
36 Sinji

## Characteristics of the Zone

The difficulties of this zone are great, in view of the peculiar one-sidedness of the available data. On the one hand the KODGO (i6) dialects are well known, as to both vocabulary and structure, but apart from NDODGO (2I) we are faced on the other hand with an almost complete lack of information. This means that the grouping is unreliable, and also that any description of the zone must be scrappy. From what we do know about these languages it seems reasonable to put these four groups into one zone, and here are some of the features which may be said to characterize it.

1. There is a high proportion of vocabulary peculiar to these languages.
2. There are many series of related nominals; an example from KODGO (16) was given in Chapter II, and here is one from NDODGO (21): -sal- 'sieve', musari/ asari 'sifter(s)', musalu/misalu 'sicve(s)', risarilu/masarilu 'sifting-place(s)'. (Cf. Zone B.)
3. Extended radicals are of very frequent occurrence, in most cases being much more common than simple radicals. (Cf. Zone K.)
4. In most languages there are genders which regularly contain words indicating smallness or bigness, c.g. in NDODGO (2x) kanzo/tunzo 'small house(s)' (cf. nzo/nzo 'house(s)'). As in this example it is usual for the stem of these words to commence with an element similar in shape to that of the prefix of another class. In KODGO (i6f) there is the peculiar prefix fi- which forms a gender with no plural, e.g. finzo 'small house'. (Cf. Zone B.)
5. The independent nominals have a single prefix in all these languages except S. KODGO ( 16 g ) where we find forms like ediaki/omaaki ' $\mathrm{egg}(\mathrm{s})$ '.
6. There are extra independent prefixes in this zone, e.g. YAKA (3r) has ha-, ku-, and mu-. KODGO (16) is an interesting border-line case, since it uses the prefixes ba-, ku-, and mu-, as in bantu 'on the head' (cf. ntu 'head'), but it also forms more commonly peculiar compounds which behave like one word, e.g. bana-ntu 'on the head', where bana- is identical in shape with the self-standing word bana 'that place there'.
7. Groups 10,30 , and 40 frequently have nasal consonants in dependent prefixes such as mi-, e.g. in YAKA (3r) miinda miama mimi 'these lamps of mine'. (Cf. Zone K.)
8. The second person plural prefix is lu- or nu- throughout the zone, e.g. in KODGO ( I 6 f ) lutanga 'you read'; in NDODGO (2 1 ) nuaniana 'you have stolen'; in YAKA (31) luzayi 'you know'. (Cf. Zones B and R.)
9. Nominals used as sentences have invariable particles prefixed to them, e.g. in KODGO (16) ibata diami 'it is my village' (cf. bata/mabata 'village(s)'). In NDODGO (2I), however, the invariable nominal can stand as a sentence without any
change of shape, e.g. ina ialu iami 'those are my chairs' (cf. ialu 'chairs'). In HUDANA (42) there is a modification of the prefix of nominals used as sentences, e.g. musini wu aamukufi 'this string is a long one', pl. misigi mi miamikufi (cf. musini mukufi 'long string', pl. misini mikufi).
10. The suffix *-E does not occur in dependent tenses in Groups io and 30, but is found in Group 20. For example, in KODJGO (I6f) luavutuka '(that) you should return', and in YAKA (31) tuakota '(that) we should enter'; but in NDODGO (21) tukune '(that) we may plant'. (Cf. Zone L.)
II. The suffix *-JLE occurs in all parts of this zone, and is heard as -ile, -ine, -ele, or -ene according to the vowel of the radical. (Cf. Zone B.)
11. In general true negative tenses do not occur in the languages of this zone. In KODGO (16f) the negative sign is ka . . . ko, c.g. katusumbidi ntumbu ko 'we have not bought a calabash' (cf. tusumbidi 'we have bought'); in NDODDGO (21) the negative sign is kii . . ee, and this is sometimes associated with a difference in the dependent prefix, e.g. kii kaasuririee 'he has not forged' (cf. uasurire 'he has forged'); and in YAKA (31) the sign of the negative is the extra suffix -ko, e.g. tuzayi 'we know', neg. tuzayi-ko.
12. The consonant alternances are not unusual, but, as in some other zones, there is an alternance $\mathbf{k}^{\prime} / \mathbf{g}$ only in junction with nasal consonants. For example, in KODGO (16f) -kamb- 'speak' does not have to be distinguished from -gamb-, but $\mathbf{y} k a \eta \mathrm{ga}$ 'kindness' is distinct from yganga 'medicine-man'.
13. 'There is a five-vowel system throughout the zone.
14. An alternance of vowel quantity appears to occur in most of these languages, e.g. in HUDANA (42) -beet- 'strike' has a different quantity of vowel from -tek'sell'. (Cf. Zones B and R.)
15. There is radical stress in these languages.
16. The tonal systems of this zone are fairly complicated, syntactical tone being very common. One characteristic of Groups io and 40 , at least, is that although there is lexical tone on the radical, there is none on the nominal suffix. This means that for nominals of any given shape there are never more than two possible tone-patterns in a given context.

ZONEK

GROUP IO
II CIOKWE
12 LUIMBI
13 LUCAZI
14 LUENA
15 MBUNDA
16 Nyengo
17 Mbwela
18 Dkangala

GROUP 20
21 LOZI

GROUP $3^{\circ}$
3I LUYANA
32 MBOWE
33 Mpukusu
34 Masi
35 Simaa
36 Sanjo
37 Kwangwa

GROUP 40
41 TOTELA
42 SUBIA

## Characteristics of the Zone

In some respects this zone is half-way between $G$ and $L$, but there is still good reason for making it, in spite of its curious geographical distribution. One of the weak points of the classification is Group 30, where the available data are altogether inadequate. However, apart from this, the remainder is fairly reliable. It proves most convenient here to describe first the features which are common to all the groups, and then those that are peculiar to one or more of the groups.

## I. Features common to all the Groups

1. Most of the languages of this zone appear to have a gender ka/tu which regularly includes words indicating smallness.
2. There does not seem to be an extension $\mathbf{- u}$ - in these languages, or even true passive verbals.
3. Three extra independent prefixes ha- (or ba-), ku- and mu- occur in all these languages.
4. Nominals are used as sentences, but there are various types of prefix occurring in such words. For example, in LUIMBI (I2) aa mazi 'this is oil' (cf. mazi 'oil'); in LOZI (21) ze kilitipa 'these are the knives' (cf. litipa 'knives'); in LUYANA (3I) ici ciisamu ecile 'this is a tall tree' (cf. ecisamu 'tree'); in SUBIA (42) aa makonde 'these are bananas' (cf. amakonde 'bananas').
5. A suffix -e occurs in affirmative dependent tenses.
6. The range of tense signs is very varied, and there is little that can be said to be common even to one group. For example, in LUYANA (31), which only has one verbal base, there are these four simple tenses, tunookayupa 'we heard', tunakuyupa 'we heard (to-day)', tuliakayupa 'we shall hear (soon)', tunambakuyupa 'we shall hear (after to-day)'; but in MBOWE (32) there are these quite different tenses on a similar base: tunakuyuva 'we heard', natukuyuva 'we heard (yesterday)', tuayuva 'we have heard', kamatuyuva 'we are hearing', matukayuva 'we shall hear'.
7. There are true negative tenses, and in any given language the negative sign is usually constant. For example, in MBUNDA (15) the negative has the prefixed element ku-, as in kututungu 'we shall not build' (cf. tuturga 'we shall build'); in TOTELA (4I) the negative sign is ta-, but the negative tense corresponding to tuakatenda 'we worked' is tatunakutenda.
8. There is a five-vowel system.
9. The radical has lexical tone.

## II. Features peculiar to some Groups

I. The independent nominals have single prefixes in Groups 10-20, but double prefixes in Groups ${ }^{3} 0-50$. For example, in MBOWE(32) esitondo/eyitondo 'tree(s)'; and in TOTELA (41) ecikumba/ezikumba 'skin(s)'.
2. In parts of Group 20 there is a double dependent prefix in nominals, e.g. in MBUNDA (15) moko iayihi 'a long knife', pl. bimoko biabihi.
3. 'The suffix *-ILE occurs in Groups io and 20 only, where it often forms part of the base of simple past tenses, e.g. in MIBUNDA (15) -kok- 'pull', tuakokele 'we pulled', -şan- 'call', tuaşanine 'we called'.
4. In Group 10 there is a suffix consisting of an indeterminate vowel, which is
distinct from -a. Fior example, in CIOKWE (it) -lim- 'cultivate', tunalimi 'we have just cultivated', -tumb- 'plant', tunatumbu 'we have just planted' (cf. mutulima 'we are cultivating', mututumba 'we are planting'); in LUCAZI ( 13 ) -neh'bring', tuanehe 'we brought', -hit- 'pass', tuahiti 'we passed' (cf. tuaneha 'we have just brought', tuahita 'we have just passed'); or in MBUNDA (15) -tung'sew', tukatuggu 'we usually sew', -zol- 'laugh', tukazolo 'we usually laugh' (cf. tucitunga 'we are still sewing', tucizola 'we are still laughing').
5. There is an alternance of two quantitics of vowel in radicals in Groups 30 and 40 only. For example, in TOTELA (41) the quantity of the vowel in -bool- 'return' is distinct from that in -bon- 'see'.
6. Although none of the languages of the zone has any stress, there is a slight lengthening of the penultimate vowel in some languages of Group ro, particularly CIOKWE (11) and MBUNDA ( 15 ).
7. There are one or two features to note about the pronunciation of junctions of nasal consonants with voiceless plosives. In Group to the nasal is not usually pronounced in this case, but the plosive is aspirated, e.g. in LUCAZI (13) likombo/ khombo 'broom(s)'. In LUYANA (3I) a voiceless plosive in junction with a nasal consonant is voiced, which means that the alternance voiceless/voiced does not occur in plosives in this position, e.g. -cana 'small', umbongo unjana 'a small goat'.
8. In Group to there is no lexical tone on nominal suffixes. (Cf. Zone H.)
9. Grammatical tone is used to characterize the different forms, but rarely to distinguish them. Here is an exceptional example from MBOWE (32), katualima ( -- -) 'we did not cultivate (before yesterday)', katualima ( - $^{-}$) 'we did not cultivate (yesterday)', where the corresponding affirmative tenses are different in shape, tunakulima ( - -..-) 'we cultivated (before yesterday)', natukulima (-----) 'we cultivated (yesterday)'.

| Group io | Group 30 | GROUP 40 |
| :---: | :---: | :---: |
| 11 PENDE | 31 LUBA-LULUA | 41 KAONDE |
| 12 Samba | 31a LUBA-KASAI |  |
| 13 KWESE | 3rb LULUA | GROUP $5^{\circ}$ |
|  | 3 rc Lange | 51 SALAMPASU |
|  | 32 KANYOKA | $52 \text { LUNDA }$ |
| Grour 20 | 33 LUBA-KATADGA | 53 LUWUNDA |
| ${ }_{21}$ Kete | 34 HEMBA | 53 LUWUNDA |
| 22 Binji | 35 SADGA |  |
| 23 SODGE |  |  |
| 24 LUNA |  | 61 Mbwera <br> 62 DKOYA |

## Characteristics of the Zone

There is a striking similarity between the languages in these groups, although it is less marked in the case of those in Groups 50 and 60 . In general the grammatical features of these languages are those which are usually considered to be typical of

Bantu languages. Here again it proves to be simplest to describe the characteristics in two sets, taking first those which are common to all the groups.

## I. Features common to all the Groups

r. There is a single prefix in independent nominals.
2. Extra independent prefixes pa- (or ha-), ku-, and mu- are in general use, and regularly govern both nominal and verbal agreements.
3. Nominals are rarely used as sentences, some kind of copula being used in most cases. For example, in LUNA (24) there is the element -i, which takes a dependent prefix, as in bai baefi (pr. bee beefi) 'they are thieves'; or in SALAMPASU (51) adi aponyi 'they are thieves'.
4. 'There is the suffix *-ILE throughout the zone, though it appears to be missing in SOIJGE (23).
5. There is no alternance $g /$ - in these languages, since $-g$ - only occurs in junction with a nasal consonant, while zero consonant only occurs in junction with vowels. The absence of the alternance is clearly seen in the following pair of words from LUBAKASAI (3Ia) lueeso/ggeeso 'pot(s)', where the prefixes can be shown to be lu/a. (The symbol a stands for an indeterminate nasal consonant.)
6. There is a five-vowel system in all languages.
7. There is no stress or other form of word prominence in any language of this zone.
8. When the second radical consonant is a simple nasal, the alternance $1 / \mathbf{n}$ in some extensions is obscured. For example, -tumin- 'send to' is not distinct from -tumil- in any of these languages.
9. There is an alternance of tone on radicals right through the zone.
10. There is a difference in the tonal behaviour of the dependent verbal prefixes and those for the ist and 2nd persons. For example, in KAONDE (41) uapitile ( $-\ldots$ ) 'he passed' (where u- agrees with muntu 'person'), uapitile (-_-.) 'you (sing.) passed'.

## II. Features peculiar to some Groups

r. An extension -u-occurs in most of the groups, but it is not found in 60 . In Group 10 it occurs in the form -eu- (-iu-), e.g. in KWESE (13) -val- 'give birth', -valeu- 'be born', -tum- 'send', -tumiu- 'be sent'; in Group 20 it occurs as part of -ibu- (-ebu-), e.g. in SODGE (23) -lel- 'give birth', -lelebu- 'be born', -tum'send', -tumibu- 'be sent'; in Group 60 it appears as a long vowel, e.g. in DKOYA (62) -hem- 'give birth', -hemuu- 'be born'.
2. In Groups 50 and 60 there are double dependent prefixes in some nominals. For example, in LUNDA (52) mutondu uawuwahi 'a good tree', pl. mitondu iayiwahi ; or in DKOYA (62) mutondo wautali 'a tall tree', pl. bitondo biabitali.
3. Extra suffixes to verbals, such as -ko and -mo, occur regularly in Groups 50 and 60, and here and there in Group 30. For example, in DKOYA (62) uaikala-mo (pr. weekalamo) 'he sat in it'.
4. Dependent tenses are formed with a suffix -e (-i in Group 50) in all groups except 20 , where a suffix -a is used. Other tenses rarely make use of a suffix -e in this zone.
5. The tense systems of most of these languages are simple. Usually there are not
more than two distinctions of past and two of future time expressed by means of tense signs. For example, in KAONDE (41) we find tuapotele 'we bought (before to-day)', tuapota 'we have just bought', tusakupota 'we shall buy (to-day)', tukapota 'we shall buy (after to-day)'. This is by no means without exceptions, as in LUNDA (52), where there are four distinct past tenses referring to simple actions.
6. Negative tenses occur in Groups 10-30, but not in $40-60$. For example, in KWESE ( 13 ), where the negative sign is -ko, the negative sometimes corresponds in form to the affirmative, as in ŋgajiyile 'I knew', neg. ngajiyile-ko, but in other tenses there is a special negative form, e.g. mbanguvutuke 'I will return', ngusiko gguvutuka 'I will not return'. The principal exception occurs in LUBA-KA'TA BGA (33) and SADGA (35), where the sign of the negative is ke which may be used with any tense. In the other languages of Group 30, although the sign of the negative is ka- there are true negative tenses which have no corresponding affirmative. In KAONDE (41) the negative sign is keci . . . ne which is apparently not even attached to the verbal. In LUNDA (52) the negative sign is hi- . . . -ku, where the first element is affixed to the verbal and the second to the last word in the clause, e.g. tukuzata mudimu 'we will do the work', neg. hitukuzata mudimu-ku. In DKOYA (62) the special base -fua-ko receives the dependent prefix, and is followed by the nomino-verbal in ku- to express the future negative, e.g. tukulaba 'we shall count', neg. tufua-ko kulaba ; but in other tenses there is the negative sign ki- . . . -ha, e.g. tualaba 'we counted', neg. kitualaba-ha.
7. Relative clauses are often constructed by means of dependent suffixes, except in Groups 20, 30 , and 50. For example, in LUNA (24) aakamona 'he saw', biakamonayi 'when he saw'; or in LUWUNDA (53) asadil 'they do', yisadila-u '(things) which they do'.
8. There is an alternance of quantity in radical vowels in all of these languages, except those in Group 60.
9. In Group 50 there is no alternance $\mathbf{i} / \mathbf{e}$ or $\mathbf{u}_{\mathbf{o}} \mathbf{o}$ in suffixes. For example, in LUWUNDA (53) ipepu 'wind' is not distinct from ipepo.
10. In each group except 60 there is an alternance of tone on nominal suffixes.
11. Although there are tone-patterns to characterize the tenses in all these languages, it is rare for the grammatical tones to be the sole distinguishing feature. One example of such a distinction does occur, however, in LUNDA (52), e.g. uakama ( - - ) 'he went to sleep (yesterday)', uakama ( _- $^{-}$) 'he is asleep'.

ZONE M
grour 10
if PIMBWE
12 Rungwa
13 FIPA
14 RUDGU
15 MAMBWE

GROUP 20
21 WANDA
22 MWADGA
23 NYIHA (Nyika)
24 Malila
25 SAFWA
26 Iwa
27 Tembo

GROUP 30
3 I NYIKYUSA
group to
4I TAABWA, \&c.
4Ia TAABWA
4Ib Sila
42 BEMBA, \&c.
42a BEMBA
42 B Dgoma
42c Lomotua
42d Nwesi
42e Lembue

GROUP 50
51 BIISA
52 LALA
53 SWAKA
54 LAMBA
55 Seba

Group 60
6r LENJE
62 SOLI
63 ILA
64 TODGA, \&c.
64 TOIJGA
64b 'Toka
$6+c$ Leya

## Characteristics of the Zone

This zone is much less homogeneous than the preceding one, but some of the groups in it may equally be said to display most of the typical Bantu features. For descriptive purposes it is most convenient to take various differentia and indicate the distribution of each of them in turn.

1. Almost all of these languages appear to have a gender such as aka/utu (or ka/tu) which regularly, though not exclusively, contains words indicating things of small size.
2. An extension -u-, which expresses a passive, occurs throughout the \%one.
3. Double independent nominal prefixes occur in all groups except 60.
4. The extra independent prefixes pa-, ku-, and mu- appear to be used throughout the zone, and to control both nominal and verbal agreements.
5. Extra suffixes, such as -po, $-\mathrm{ko},-\mathrm{mo}$, are used with verbals throughout the zone, and in Groups 30 and 40 they are used with nominals also. For example, in NYIKYUSA (31) pabutali 'at a distance', pabutali-po 'at a distance from it'.
6. Nominals are regularly used as sentences. In Group ro the nominal has the same shape as when used with a verbal, e.g. in RUDGU (i4) icisu 'a knife', cii icisu 'this is a knife'. In Groups 20 and 30 a single prefix is used instead of a double one, e.g. in MALILA (24) ulukusa 'a rope', lukusa 'it is a rope'; the principal exception to this is MWADGA (22), which replaces the first part of the double prefix with a-, e.g. icitala 'bed', acitala 'it is a bed'. In Groups 40 and 50 there is a single prefix with a long vowel, e.g. in TAABWA (4ia) ubusansi 'mat', buusansi 'it is a mat'. In Group 60, where there are no double prefixes, another element is often prefixed, e.g. in ILA (63) bantu 'people', mbantu 'they are people'.
7. There is a verbal suffix -e throughout the zone, and normally this is the sign of affirmative dependent tenses. Rarely it also occurs in principal tenses, e.g. in SOLI (62) nitukalime 'we shall cultivate'.
8. A suffix such as -ile occurs in all groups except 60 , but its actual nature varies. In Groups 10 and 20 it is -ile (or -ile), but bases formed with it have fewer alternances in the second radical consonant, e.g. in MWADGA (22) -let- 'bring' and -lek'leave', both have the same -ile base, -lesile. In Group 30 the suffix is -jle, but there is no difference in the alternances of the radical consonants. In Groups 40 and 50 the suffix has an indeterminate vowel, being heard as ele in sequence with -e- or -0-, but otherwise as -ile, e.g. in BIISA (5I) -pet- 'bend' has -petele, and -pat- 'hate' has -patile.
9. Tense signs tend to be numerous in these languages, though BEMBA (42a)
is probably an extreme case with about thirty by means of which distinct one-word affirmative tenses may be formed. One striking feature is the rarity of any element like -nga regularly indicating actions in progress. There is such an element in SOLI (62), e.g. tulalimi 'we have cultivated', tulaliminga 'we are cultivating', but as will be seen from this example its use is peculiar, since it appears to be added not to a simple tense, but to one indicating a completed action.
10. In most of the groups there are special negative tenses, but in 10 there is a negative element, such as -ta- or -si-, which appears to form negative tenses corresponding to the affirmative. Elsewhere the negative tense is often quite distinct from the affirmative, e.g. in NYIKYUSA (3I) afjkjle 'he has arrived', neg. akafika; or in LENJE (61) tulaakulima 'we will cultivate', neg. teetukaliime.
11. There is an alternance $\mathbf{g} /$ - in radical consonants in Groups io-30 but not in the others, the chief exceptions being that it is missing in MAMBWE ( 15 ) and 21-3, and is present in TODGA (64). For example, in SAFWA (25) -gog- 'kill' is distinct from -og- 'wash', but in a language like BEMBA (42a) there is nothing like this.
12. There is no alternance $\mathbf{f} / \mathbf{v}$ or $\mathbf{s} / \mathbf{z}$ in Groups 30 and 40 (or in most of Group 50 and 61, 62). For example, in NYIKYUSA (31) -sjmb- 'write' is not distinct from -zjmb-, but in Group 20 these might be different radicals.
13. Other alternances which are absent throughout the zone are $1 / \mathrm{d}, 1 / \mathrm{r}, \mathrm{s} / \mathrm{f}$.
14. There is a five-vowel system in radicals in Groups 40-60, and a seven-vowel system in Group 30. In the two remaining groups there is a mixture; thus there are seven-vowel systems in 11-14, but a five-vowel system in 15, and 21-3 have five vowels but 24,25 have seven.
15. There is an alternance of quantity in radical vowels in Groups $30-50$ but none in Groups 20 and 60 . In Groups io there is a mixture, since PIMBWE (in) has no such alternance but $13-15$ have.
16. In Groups $40-60$ there is an indeterminate alveolar consonant in some postradical syllables, but in the other groups there is not. For example, in LENJE (6r) -tey- 'prepare', -teyel- 'prepare for', -tem- 'cut', -temen- 'cut for', which means that this extension has a consonant which is heard as -n - or -1 - according to whether the second consonant of the radical is a nasal or not.
17. In general these languages have no form of word prominence, but although stress appears not to be used anywhere, WANDA (21) and MWADGA (22) have a slight increase in length in the penultimate syllable, e.g. in WANDA (21) tuakala 'we have just bought' is pronounced twa:ka-la, and tuakazile 'we bought' twa:kazi-le.
18. The syllable arising from the junction of two vowels usually contains a long vowel, even in those languages which have no alternance of vowel quantity in radicals. For example, in LENJE (61) muana 'child' is pronounced mwa na. Similarly vowels in junction with nasal compounds are always pronounced longer, e.g. in TODGA (64a) -samb- 'wash' is heard as -sa-mb-.
19. NYIKYUSA (31) makes no use of tone, either lexical or grammatical, but elsewhere there is an alternance of tone in radicals, except in FIPA ( 13 ) and RUDGU (14), and on nominal suffixes except in PIMBWE (ri). In LAMBA (54) and the whole of Group 6o, however, there are only three tone-patterns for dissyllabic nominal stems instead of the four that might have been expected if there were a full double alternance.
20. Grammatical tone is frequently the only way of distinguishing tenses which
have identical shape, although Group 60 appears not to have this feature. For example, in MWADGA (22) tuaiza (---) 'we have just come', tuaiza (--_) 'we came (before yesterday)', tuaiza (--_) 'we shall come (soon)'; or in FIPA (13) tualimjle (----) 'we cultivated (before yesterday)', tualimjle (- -_-) 'we cultivated (yesterday)'.
21. Dependent verbal prefixes, agreeing with a nominal, have a different tonal behaviour from those of the first and second persons. For example, in MAMBWE (15) amalola ( - --) 'they will look' (a- agreeing with antu 'people'), tumalola (--_-) 'we will look'; or in LENJE (6r) baatafuna (--_-) 'they will chew', tuatafuna (----) 'they will chew'.

## Summary

Although some isoglosses which are important in separating groups elsewhere cut right through the groups in this zone, yet the boundaries are well defined. In some respects too, as will have been noted, there is much in common between these groups, in spite of an apparent lack of homogeneity. For all that, this zone probably illustrates more clearly than others the basic fact that the sorting of groups into zones is primarily geographical, though with as much linguistic justification as possible.

ZONE N

GROUP 10
II MANDA
12 DGONI
13 Matedgo
14 MPOTO

- 15 TODGA

GROUP 20
21 TUMBUKA, \&c. 21a TUMBUKA
2rb POKA
21c KAMADGA
21d Senga
2re Yombe
2If Fungwe
2ig Wenya
2Ih Lambia
2rk Wandia
group 30
3I NYANJA, \&c.
3ra NYANJA
3rb CEWA
3Ic MADANJA
32 Mbo
33 Mazaro

GRoup 40
4I NSEDGA
42 KUNDA
43 NYUDGWE
44 SENA
45 Rue
46 Podzo

## Characteristics of the Zone

The groups which constitute this zone have many similarities to one another, and in most cases they are quite different from the neighbouring ones in other zones. In spite of this it proves to be of little value to attempt to distinguish the features which are common to every group from those which are not. Instead the distribution of certain differentia will be described in turn.

1. In Group io the independent prefix which serves as the singular of mi- is an indeterminate nasal consonant. For example, in MPOTO (14) ykoygo/mikongo
'tree(s)'. In the other groups this prefix is usually m-, e.g. in 'IUMBUKA (2ra) mlomo/milomo 'lip(s)'.
2. The independent prefix governing the agreement $\mathbf{I} \mathbf{i}$ - is itself $\mathbf{l} \mathbf{j}$ - in Group 10 , e.g. in MPOTO (14) lịhbaili 'this broom'. In the other groups it is usually zero, but not infrequently gives rise to modifications in the pronunciation of the first radical consonant. For example, in NYUDGWE (43) phiri/mapiri 'hill(s)', tsomba/ masomba 'fish(es)'.
3. An extension -u- occurs in each group, but it is used by itself in Groups 10 and 20 only, e.g. in TUMBUKA (21a) -kom- 'kill', -komu- 'be killed'. In Group 30 it occurs in the longer form -iu- (or -eu-), e.g. in NYUDGWE (43) -gur- 'buy', -guriu- 'be bought'. In Group 30 it is part of the compound extension -idu- (or -edu-), e.g. in NYANJA (3ra) -mang- 'tie', -mangidu- 'be tied'.
4. Independent nominals have single prefixes throughout the zone.
5. There are extra independent prefixes capable of governing both nominal and verbal agreements, such as pa-, ku-, and mu-, in each language.
6. Double dependent prefixes occur here and there, but without any regularity. For example, in NYANJA (31a) certain stems behave like -tari in these examples, but others do not, cintu cacitari 'a long thing', pl. zintu zazitari.
7. The first person plural verbal prefix is ti- right through the zone. The only exception occurs in MATEDGO (13), where the prefix tu- is used with future tenses, but even here ti- is used with past tenses, e.g. tusenga 'we shall build', tisengite 'we have built'.
8. Nominals are used as sentences, but usually have ni- or ndi- prefixed to them in this case. In Group 10 the use of ni- is by no means without exception, e.g. in MPOTO (14) lugoye 'a rope', nilugoye or lugoye 'it is a rope'. In TUMBUKA (21) a nasal consonant is prefixed in most cases, e.g. cijaro 'a door', ncijaro 'it is a door'.
9. A suffix -e is the usual sign of the dependent tense, and in some cases it is also used to form the base of principal tenses.
10. There is no suffix like -ile in Groups $20-40$. In Group 10 there is a mixture of suffixes, but -ile only occurs in a few bases in MPOTO (i4). In MANDA (ir) there is a suffix - $\mathfrak{i t j}$, e.g. -tot- 'sew', titotjt $j$ 'we sewed'; in DGONIT (iz) there is $-\mathfrak{j}$, e.g. -jeng- 'build', tijengi 'we built'; while in MATEDGO (土3) there is regularly -jte, e.g. -phal- 'pull', tiphaljte 'we pulled'.
11. In most of these languages there are few distinctions of time expressed by the tense signs, the principal exception being MANDA (II), where there are four distinct past tenses and four future.
12. Actions in progress are mostly referred to by means of the nomino-verbal in ku- together with a copula -li, e.g. in NYANJA (3ra) -fun- 'search', tinafuna 'we searched', tinali kufuna 'we were searching'.
13. True negative tenses are uncommon, elements either being affixed to the verbal or occurring elsewhere in the clause as self-standing words. NYANJA (3 ra) provides examples of the former type, e.g. tinapita 'we passed', neg. sitinapita. The second type occurs in MANDA (II) tiletj̣tj kibiga 'we brought a pot', neg. tiletjtj kibiga lipa; and in TUMBUKA (2ra) tikawona zovu 'we saw an elephant', neg. kuti tikawona zovu cara.
14. There is usually no special word or element to indicate the relative construction, though in some languages there is a special tone-pattern for tenses in relative clauses.
15. Alternances of the type $\mathbf{p} / \mathbf{p h}$ occur in first radical position in most of these languages. For example, in TUMBUKA (21a) -par- 'scrape', -phar- 'tell', or in NYANJA (3ra) -pit- 'pass', -phik- 'cook'.
16. An alternance $1 / d$ is found in this zone, as, for example, in NYMNJA (31a), where -lul- 'froth up' is distinct from -dul- 'cut across'.
17. Radicals commencing with nasal compounds are found in verbal bases in some of these languages. This is rare in Bantu languages. For example, in TUMBUKA (21a) - ŋgir- 'enter', or in NYANJA (3ia) -mver- 'obey'.

IS. TUMBUKA (2ıa) is peculiar in having the alternances $p / b / \underline{\mathbf{b}}$ and $\mathbf{k} / \mathbf{g} / \mathbf{g}$, e.g. -par- 'scrape', -bab- 'give birth to', -bab- 'irritate'.
19. In Group io there are seven-vowel systems, but elsewhere only five vowels are found in radicals.
20. 'There is no alternance of quantity in any of these languages.
21. The languages of this zone are notable for the different voiced labial sounds that occur in them. In MANDA (II) there is a labio-dental semi-vowel, e.g. -vik'put', where the first consonant appears to be distinct from -w-. In TODGA (15) there is a labio-dental plosive which is distinct from the bilabial plosive, e.g. -dar'shine', -bar- 'give birth to'. In POKA (2Ib) there is a ' $v$ ' without friction, which is distinct from both $w$ and $\mathbf{v}$, as in -vur- 'lack'. In NSEDGA (4I) there is a fricative 'w' which has to be distinguished from the pure w, e.g. -wir- 'proclaim', -wir'sew'.
22. There is no form of word prominence in Groups $10-20,40$, but in Group 30 there is penultimate vowel length, which is confined to the last word in the sentence. For example, in NYANJA (3 ra) tadula 'we have cut', pr. tadu-la; tadula gkuni 'we have cut firewood', pr. tadula $\eta k h u \cdot n i$; tadula $\eta k u n i$ kumudzi 'we have cut firewood by the village', pr. tadula gkhuni kumu-dzi.
23. In the languages of this zone syllables arising from the coalescence of two or more vowels do not usually contain long vowels, c.g. in TUMBUKA (21a) muana 'child' is pronounced mwana. 'This is not without exception, especially when the two vowels are similar and both are grammatical elements, e.g. in NYANJA (3 1a) the following two words have the same number of syllables, but the first syllable in the first is distinctly longer than that in the second: aaseka 'they have laughed', aseka 'they laugh'. On the other hand, vowels in junction with nasal compounds are never pronounced with increased length in these languages; thus the first vowel in these two words has the same length in MPOTO (14) njoka 'snake', 刀kongo 'tree'.
24. A nasal compound containing a voiceless consonant is usually aspirated in these languages. For example, in NYANJA (31a) mpasa 'mats' (pl. of lupasa) is pronounced mphasa. In Group ro this also happens in the singular of the $\mathbf{m} / \mathbf{m i}$ gender, e.g. in MANDA ( x ) ) ykongo 'tree' (sing. of mikongo) is pronounced gkhongo.
25. In TODDGA (15) and TUMBUKA (21) there are some special speech sounds which arise from double junctions of the following kinds, as in TUMBUKA (21a) kupua 'to dry up', pr. kupxa; kupia 'to get burnt', pr. kupça.
26. There is an alternance of tone on the radical in MANDA (Ir) only in this zone. In NYANJA (3Ia) there is an alternance of tone on nominal suffixes, giving rise to two
tone-patterns in nominals with disyllabic stem. In TUMBUKA (2I) tone is not used at all, but in most of the other groups grammatical tone plays a not inconsiderable part in distinguishing tenses, as, for example, in MANDA (ri) tapitjte ( -- $^{--}$) 'we passed (before yesterday)', tapitite ( --- $^{-}$) 'we passed (yesterday)'; yatipitaye ( .-.--) 'we shall pass (later to-day)', yatipitaye ( .-- -. ) 'we shall pass (to-morrow)'.

## ZONE P

GROUP IO
II NDEDGEREKO
12 RUIHI
13 MATU̧MBI
14 DGINDO
15 MBUDGA

GROUP 20
21 YAO
22 MWERA
23 MAKONDE
${ }_{2} 4$ NDONDE
25 MABIHA
group 30
31 MAKUA
32 LOMWE
33 DGULU
34 Cuabo

## Characteristics of the Zone

Although this zone is made up of three groups only, the relationship between them is by no means uniform. Between Groups io and 20 it is fairly close, but 30 is in many respects a group on its own. On the other hand, the languages of these groups have more in common with one another than with those in adjacent zones, and it is this fact that justifies the formation of the zone.

1. There are high percentages of related words in the standard vocabularies of Groups 10 and 20 , but one notable thing about the lexical characteristics of these languages is the occurrence of common words which appear to have no counterparts elsewhere. For example, the words kiribi/jribi 'thing(s)' are found in Group ro, but are not known to be related to words in any language outside the group. The word ncece (or mceece) for 'four' is characteristic of the whole zone, and is peculiar to it, but at the same time it illustrates the danger of using isolated words for purposes of classification. NDEDGEREKO (II) and RUłHI ( 12 ), which are very closely related to the rest of the group in other ways, happen not to have this word, while POGOLO (G.51), which has little in common with the languages of this zone, does use mcece for 'four'.
2. There is an extension -u-serving to express the passive in Group 20 only. In Group 30 there is also an extension - $\mathbf{u}$-, but since this forms radicals which express the neuter of those with -ul- it may be held to correspond to the -uk- of other languages. For example, in DGULU (33) -wahul- 'tear', -wahu- 'get torn'.
3. Independent prefixes are single throughout the zone, but in Group 20 some double dependent prefixes occur, e.g. in YAO (2I) litala lialijipi 'short path', pl. matala gaamajipi.
4. The independent prefix which serves as the singular to mi- is either m - or an indeterminate nasal consonant in each of these languages. For example, in MAKUA (3I) mhuko/mihuko 'bag(s); and in MAKONDE (23) nnandi/milandi 'tree(s)'. In some of the languages of Group 30 a longer prefix mu - is also used, e.g. in DGULU (33) muteko/miteko 'work(s)'.
5. Throughout the zone extra independent prefixes occur, but in Group 30 they
are usually accompanied by an extra suffix -ni, e.g. in LOMWE (32) muhice 'river', mmuhice-ni 'in the river'.
6. The nomino-verbal prefix is ku- in Groups io and 20, but in 30 it is u-or o-.
7. The verbal prefix for the first person plural is tu-in Groups 10 and 20 , but ni- in 30.
8. Nominals are frequently used as sentences in these languages. Sometimes there is an additional element, as in MAKONDE (23), e.g. citale 'iron', ncitale 'it is iron'; sometimes the nominal has the same shape as in other cases, e.g. in MAKUA (3I) ila inupa ikina 'this is a small house', inupa ila ikina 'this house is a small one'.
9. A suffix -e is the sign of the dependent tense in all the languages of this zone. It frequently occurs, however, in other tenses too, e.g. in MWERA (22) situtote ngubo 'we shall sew the cloth'.
ro. There is a suffix -ile in Group 20, although in some cases as MAKONDE (23) it only occurs in negative tenses. In Group 30 there is only the one base, formed with -a, used in principal tenses. In Group io-ile does not occur, but -jte is common, though RUఏHI (12) uses the very unusual - $\mathbf{j k e}$, e.g. -son- 'sew', tusonike 'we sewed', and in some cases even uses -e as an alternative, e.g. -pit- 'pass', tupitjke or tupite 'we passed'.
ir. There are negative tenses in most of these languages. Their form is sometimes related to that of the affirmative, but any relationship varies from tense to tense, and rarely is there a negative corresponding to each affirmative tense. Here is an example from MWERA (22) which may be considered as typical: situcenge 'we shall build', neg. tukacenga ; tuacengile 'we built', neg. tukanaacenga.
10. Infixed elements serve as substitute objects in each group, but in 30 they are confined to the $\mathbf{m} / \mathbf{a}$ gender, c.g. in LOMWE (32) yamphwanya 'they found him', but yaphwanya ela 'they found it' (i.e. 'house' empa).
${ }^{13}$. Relative clauses are usually identical in shape and tone-pattern with principal clauses, the word order alone indicating whether the clause is relative or not.
11. In Groups 10 and 20 there is no alternance $\mathbf{s} / \mathbf{z}$, e.g. in YAO (21) -sito 'heavy' does not have to be distinguished from -zito. In MABIHA (25) and in the whole of Group 30 neither $\mathbf{s}$ nor $\mathbf{z}$ occurs.
12. In Group 30 only is there an alternance $1 / r$ in radicals, e.g. in MAKUA (31) -lik- 'try' is distinct from -rik- 'draw (water)'.
13. An unusual alternance $\mathbf{t} / \mathrm{t} s$ occurs in parts of Group 30 , as well as the aspirated th/ tsh , in which the affricates are really predental. For example, in MAKUA (3I) itaya 'earth', itşala 'hunger', ithala 'veranda', itşhapa 'trap'.
14. In Group 10 there are seven-vowel systems in the radical, but in Groups 20 and 30 only five-vowel systems.
15. There is an alternance of vowel quantity in the radical in Group 20 only, for example, in YAO (21)-jim- 'refuse' is distinct from -jiim- 'stand'. The only exception is DGINDO (14) which also has an alternance of quantity, cf. litoosi 'banana' and lugoji 'rope'.
16. The junction of a nasal consonant with the first radical consonant involves the following things in most of Groups 10 and 20 . The nasal is not heard before -s-, e.g. in YAO (2I) lusasa/sasa 'wall(s)', where sasa is really \#sasa. The alternance between a voiceless and a voiced plosive is masked, e.g. in YAO (2I) lukosi/ngosi
'neck(s)', lugoji/ngoji 'rope(s)', where ŋgosi and ngoji are really $\ddagger \mathbf{k o s i}$ and mgoji respectively.
17. The only form of word prominence occurs in the languages of Group to where there is a slight stress on the radical.
18. There are no lexical tones in Groups io and 30. In Group 20 there is an alternance of tone on radicals and also on nominal suffixes.
19. Grammatical tone is used to characterize tenses in Groups io and 20, but no case has yet been observed where it serves to distinguish them.
20. In Group 20 there is a correlation between tone-patterns and syntactical relationships in some cases, e.g. in YAO (21) saasu sijaasiice (-- _---) 'the firewood is lost', acila saasu cila sijaasiice ( - - - - - - -- $^{-}$) 'that firewood is lost'.

> ZONE R

GROUP IO II MBUNDU
12 Ndombe
13 Nyaneka
group 20
21 KUANYAMA
22 NDOIJGA

GROUP 30
31 HERERO, \&c. 3ra HERERO
3 rb Mbandieru
3ic Cimba
GRoup 40
41 YEEI

## Characteristics of the Zone

This zone is sharply distinguished from its neighbours, but it is not easy to indicate the features which are peculiar to it. This is largely because the characteristics which separate it from the languages on the north (i.e. in Zone H) are different from those which separate it from those on the east (i.e. Zones K and S ). For this reason no attempt is made to divide up the differentia into two sets.
I. In every language there is a gender which regularly, though not exclusively, contains words indicating small things. In MBUNDU (II) it is oka/otu, in Groups 20 and 30 it is oka/ou, and in YEEI (41) it is ka/tu.
2. In most of these languages extended radicals are commoner than simple radicals. Thus in the standard vocabularies of Groups 10 and 20 there are less than 20 per cent. of simple radicals among those used for forming verbals, against the more usual 35 per cent. Examples of these may be seen in the following radicals which do not seem to occur in the unextended form: in MBUNDU (ir) -pitahal- 'pass', -talabay- 'do'.
3. An extension-u-appears to occur in all of the languages of the zone, and to express the passive. For example, in KUANYAMA) (2r) -dal- 'give birth to', -dalu'be born', or in HERERO (3 ra) -hind- 'send', -hindu- 'be sent'.
4. Double independent prefixes occur throughout the zone. In Groups io-30 the first part of the prefix is usually o-, but there are the following exceptions. In every case the class which governs the dependent prefix li- has e-as its independent prefix, e.g. in NDODGA (22) eyego lioye 'your tooth'. In MBUNDU (11) the singular of the omu/oba and the omu/obi genders and the plural of the omu/oba and the
e oba genders only have double prefixes when the stem is monosyllabic or commences with a vowel, e.g. omuine/obiine 'finger(s)' but utima/obitima 'heart(s)'. In Group 20 there are some classes with double prefixes consisting of two identical vowels with no intervening consonant, e.g. in KUANYAMA (2x) onjila/eenjila 'path(s)', or in NDODGA (22) osinima iinima 'thing(s)'. In YEEI (4r) double independent prefixes are apparently used only with monosyllabic stems or with those commencing with a vowel, and even then the same vowel is used in both parts of the prefix, e.g. umuya/imiya 'thorn(s)'.
5. Extra independent prefixes, pa-, ku-, and mu- are used in each language. In Groups ro-30 they are added to the double prefix, e.g. in HERERO (3ra) ondundu 'hill', kuondundu (pr. kondundu) 'to the hill'. In YEEI (4) in addition to the simple prefix there is also a compound form, e.g. sikali 'chief', kusikali 'to the chief', but muzi 'village', kuokumuzi 'to the village'.
6. In Groups $10-30$ extra dependent prefixes also are added to the double prefix, e.g. in MBUNDU (iI) obiti 'trees', obianja biobiti 'branches of the trees'. In YEEI (41), which does not ordinarily use double prefixes in independent nominals, a similar kind of word occurs through the use of an indeterminate vowel to link the extra dependent prefix. This vowel is heard as $\mathrm{a}, \mathrm{e}$, or o according to whether the vowel of the prefix is -a- (or zero), -i-, or -u- respectively, e.g. murumi/barumi 'man/men', sipuna siomurumi 'the man's stool', pl. zipuna ziabarumi (pr. zabarumi).
7. Double dependent prefixes in certain kinds of nominals regularly occur in Groups 30 and 40 . For example, in HERERO (3 ra) omuti omusupi 'a short tree', pl. omiti omisupi, or in YEEI (41) sipuna sisikuru 'an old stool', pl. zipuna zizikuru. Otherwise they only occur in NDODGA (22), e.g. olutu olunene 'a big body', pl. omalutu omanene.
8. Nominals of one type or another are regularly used as sentences in each group. For example, in MBUNDU (ri) obiti 'trees' or 'they are trees'; or in NDODGA (22) oygulu 'house', ongulu yianje 'it is my house'; and in YEEI (41) dipamba 'hoe' or 'it is a hoe'.
9. There is a suffix -e which serves regularly as the sign of the affirmative dependent tense, but which is rarely used in principal tenses.
10. A suffix -ile occurs in each language, but sometimes, as in YEEI (41) apparently, it is more characteristic of relative than of principal clauses.
iI. An indeterminate vowel suffix occurs as a tense formative in some of the groups, e.g. in KUANYAMA (2i) ohatuloygo 'we work' (-long- 'work'), ohatutungu 'we build' (-tung- 'build').
12. A copula - li is rarely used as a tense auxiliary in these languages.
13. The tense signs of the languages in these groups are not numerous, it usually being possible to refer only to one past time and one future time without the use of actual time words.
14. Negative signs are fairly consistent in each language, but the form of the negative tense is often different from that of the affirmative. For example, in MBUNDU (iI) ka-. . . -ko is the sign of negative, as in katuakokele ukolo-ko 'we did not pull the rope' (cf. tuakokele ukolo 'we pulled the rope'), but the negative of tukoka ukolo 'we are pulling the rope' is katukoki ukolo-ko, and the base -koki does not
occur in any affirmative tense. Similarly in HERERO (3 ra) ka- is the negative sign, as in tumunine 'we found', neg. katumunine, but the negative of matumuna 'we find' is katumuna.
15. Relative clauses in Group 10 may or may not be introduced by a linking word, e.g. in MBUNDU (ir) esala (elina) tuasayga litito 'the egg we found is small', elsewhere there are extra prefixes agreeing with the antecedent used with relative verbals. The chief exception to this is in NDO1)GA (22) which uses a special link word formed from the stem -oka with $A$ - prefixed to the dependent prefix, e.g. osilonga sioka omuhongi esiningi 'the work the teacher has done', pl. iilonga mbioka aahongi yeyiningi.
16. There are some unusual alternances in radical consonants in these languages. In Group 20 there is $\mathbf{1} / \mathbf{d}$, e.g. in KUANYAMA (2r) -lil- 'weep', -dil- 'be taboo'; as well as the rare d/nd, e.g. -dudum- 'growl', -ndudum- 'thunder'. In Group 30 there is $\mathbf{t} / \mathbf{t}$ (and $\mathbf{n} / \mathbf{n}$ ), e.g. -tak- 'shake', -tar- 'look out'.
17. The consonant alternances in radicals are markedly different from those in prefixes in some cases. For example, in MBUNDU ( 1 I $) \underline{b}$ is distinct from both $\mathbf{p}$ and $\mathbf{m}$ in radicals, as in -banj- 'look at', -pal- 'run away', -mal- 'finish', but baonjila (pr. bonjila) is not distinct from paonjila 'on the path', similarly abanu 'people' is not distinct from amanu.
18. There is a five-vowel system in the radicals of each language.
19. There is no alternance of quantity in radicals in these languages, but if the vowel of a radical is in junction with a similar vowel in an extension, this may simulate a long vowel. For example, in KUANYAMA (21) where -fu-ul- 'strip' appears to have a different quantity from -ful- 'rub', but has in fact one syllable more.
20. There is a slight lengthening of the penultimate vowel in MBUNDU (II) but no stress.
21. Tonal data are only available for MBUNDU (ix), where there is an alternance of tone on radicals, so that -kul- 'plant' and -kut- 'tie up' have different tonal behaviour. There is, however, no tonal alternance on nominal suffixes, with the result that nominals have only two possible tone-patterns. Those with disyllabic stem are represented by the typical words onjila (---) 'path' and onjila (---) 'bird'.

| ZONES |  |
| :---: | :---: |
| group io | Group 30 |
| I VENDA | 31 XHOSA |
|  | 32 ZULU, \&c. |
|  | 32a ZULU |
| GROUP 20 | 32 b DGONI |
| 21 TSWANA | 33 SWAZI, \&c. |
| 21 a ROLOD | 34 NDEBELE |
| 21 b Kgatla |  |
| 21 c Maygwato |  |
| 22 PIDIf |  |
| 23 SUTHU |  |

## Characteristics of the Zone

This zone is different in many ways from most of the others, since it contains only three groups, and these are much better documented than most. 'The most useful way of dividing up the features would have been to deal first with those common to at least two of the three groups, and then with those peculiar to one group. 'To do this, however, would have meant duplicating some of the data, so instead the occurrence of each of the features is indicated in turn.
I. In these languages there are a number of radicals consisting of a single consonant only, but no vowel. For example, -n- 'rain' occurs in almost every language. Such radicals are not unknown in other zones, but elsewhere there are rarely more than three of them, whereas the average number in this zone is ten. VENDA (II) is exceptional in having about sixteen, while some of the languages of Group 20 have only six in common use.
2. In Groups 20 and 30 there are no genders which regularly include words indicating small or large things. In VENIPA (II) there is a gender ku/zwi in which are found words to refer to small things, e.g. kuçi/zwiḑi 'small village(s)' (cf. muḑi/miḑi 'village(s)'). A type of word-building which is not common in the other zones described so far gives rise to words of the following type in Groups 20 and 30. In PIDI (22) maruana 'little clouds' (cf. maru 'clouds'), or in XHOSA (31) indluana 'little house' (cf. indlu 'house'), are examples of what are loosely called 'diminutives', but like all other cases where the relationship between words is on the lexical level, it is quite impossible to predict what the so-called diminutive of any given word will be.
3. There is an extension -u- in each group, but in VENDA (11) it usually occurs as part of the compound extension -iu-, e.g. -ţơ- 'seek', -todiu- 'be sought'. The peculiar way in which junctions containing -u- are heard in Groups 20 and 30 will be referred to in a later section.
4. Extensions -el- and -is- do not have indeterminate vowels as they do in so many other groups outside this zone. For example, in ZULU (32) -thung- 'sew', -thuygel- 'sew for', -ngen- 'enter', -ngenis- 'cause to enter'.
5. Double independent prefixes occur in Group eo only, e.g. in DGONI (32b) umthi/imithi 'tree(s)'.
6. Extra independent prefixes are not used with any regularity in the languages of this zone. In VENDA (II) they do not occur at all, the extra suffix -ni being used to express a similar meaning, e.g. masimu-ni 'in the gardens' (cf. masimu 'gardens'). In Group 20 there is usually an extra suffix $-\eta$, but in some cases an extra prefix is used as well, e.g. in ROLOD (21a) luapi 'sky', muluapi-y 'in the sky'. 'The agreement governed by such words is peculiar in that it is similar to that governed by the nomino-verbals, as muti-y kapjtsa 'inside the pot' (cf. pitsa 'pot', kutlala kapitsa 'the filling up of the pot'). In Group 30 the first part of the double prefix is usually replaced by e-when the extra suffix -ni (or -ini) is used, e.g. in DGONI (33b) emgwajeni 'in the path' (i.e. emgwapa-ini, cf. umgwapa 'path').
7. Double dependent prefixes occur in Group 30 only, but the vowel of the first part of the prefix differs from that of the corresponding independent prefix, e.g. in ZULU (32) umuthi omude 'a tall tree', pl. imithi emide.
8. Nominals are used as sentences in most of these languages. In VENDA (II) ndi- is usually prefixed to the nominal, e.g. micelo 'fruits', ndimicelo 'they are fruits'. In Group 20 independent nominals usually have an element prefixed, but dependent nominals may sometimes have a double prefix, e.g. in ROLOD (21a) kimulapo mukulu 'it is a big river', but mulapo mumukulu 'the river is a big one'. In Group 30 there are various ways in which the prefix of nominals is modified when they are used as sentences, but the adding of an extra element is the least common of these.
9. A suffix -e is the sign of the dependent tense in the affirmative in every group, and in Group 10 it also occurs in the negative, e.g. -ful- 'pluck', rifule '(that) we should pluck', neg. risafule.
10. Bases formed with a suffix -ile occur in Groups 20 and 30, but not in VENDA (II).
ir. There are relatively complex tense systems in these languages, but few tense signs. It is rarely possible to indicate a distinction of past or of future time by means of tense signs alone. The number of tenses is increased by the use of the copula to form two-word tenses, as in VENDA (II) -ţoç- 'seek', roba roţoça 'we were seeking', but also by means of other auxiliaries. Some of the bases used to form the auxiliary verbals are similar to those used in other full words, such as ukuya 'to go' and ukuza 'to come' in ZULU (32). Others, on the other hand, appear only to occur in the form words, as -sali in ROLOD (21a), e.g. risali rireka 'we bought some time ago' (-rek- 'buy').
12. The negative sign in verbals occurs regularly in most of these languages, but often there is no affirmative tense which corresponds in form to a given negative. For example, in VENDA (iI) a- is the negative sign, as in riḑibona ( $\left(^{---}\right.$) 'we usually see' (-bon- 'see'), neg. ariḑibona ( ${ }^{---}$) ; not only are there usually different tonepatterns for the negative tenses, however, but in most cases distinct tense signs too, as in baseha ( ${ }^{---}$) 'they are laughing' (-seh- 'laugh'), neg. abasehi ( $\mathbf{-}^{---}$), or in bad̦oseha ( ${ }^{----}$) 'they will laugh', neg. abangaḑoseha ( ------ $^{\text {) }}$.
13. Verbals in relative clauses usually have a special form in these languages. For example, in XHOSA (31) there is no link word to introduce a relative clause, but the verbal has a special fixed suffix -yo, and a prefixed element which consists of an indeterminate vowel heard as $\mathbf{a}$, e, or o according as the verbal prefix has $\mathbf{a}$, $\mathbf{i}$, or $\mathbf{u}$ respectively, as in into esifuna-yo 'the things we seek', into abafuna-yo 'the things they seek'. In TSWANA (2I) the verbal has the extra suffix $-\eta$ as well as an extra prefix which agrees with the antecedent, e.g. tshimu iluilima- $\eta$ 'the garden you are
 word to introduce relative clauses, which appears to depend in form upon the tense of the verbal, consisting of either -ne or -e with a prefix to agree with the antecedent.
14. In the languages of this zone the consonant alternances in radicals are far more numerous than in any other group. VEND, (in) probably has the most with at least thirty-seven distinct single consonants in junction with -a-in first radical position, and in addition about eight more in which a nasal is combined with the consonant.
15. Click consonants occur in radicals in Group 30. In SUTHU (23) there is also the alternance $c / c h$, but in Group 30 there are three series of the type $\mathbf{c} / \mathbf{c h} / \mathrm{gc}$ (in which the third member is voiced). In DGONI (33b), an almost extinct member of
the group spoken in northern Nyasaland, this particular series does not occur. Instead there is one in which the clicks have a sort of double sound, being released from a retroflex position and then flapping against the lower teeth.
16. There are seven-vowel systems in Group 20, but five-vowel systems in the other groups. In most cases the number of vowels in speceh is two in excess of that in the alternance.
17. There is no alternance of quantity in radical vowels in any of these languages.
18. A striking feature of Groups 10 and 20 is the masking of the alternances of the first radical consonant in junction with certain prefixes. For example, in VENDA (iI) alternances such as $t / r$ and $k / h$ are obscured in junction with the indeterminate nasal consonant, as in lutanga/thanga 'reed(s)' (where the plural is really atanga but is heard as thaŋga) luraŋga/thanga 'pumpkin plant(s)' (where the plural is really aranga but is also heard as thanga). In junction with zero prefix, which forms words that serve as the singular of others with ma-, other alternances such as $\mathbf{r} / \mathbf{h}$ and $d z / l$ are masked, as in Jaho/maraho 'buttock(s)', Jada/mahaḑa 'shoulder(s)' (where $\int$ aho and faḑa are really $\chi$ raho and haḑa respectively, using the symbol $\chi$ for the zero prefix). An example of the masking of the alternance $\mathbf{p} / \mathbf{b}$ in junction with the indeterminate nasal infix is seen in these radicals from SUTHU (23) -pat'bury', -mpat- (i.e. -\#pat) 'bury me', -bat- 'strikc', -mpat- (i.e. -zbat-) 'strike me'.
19. In Groups 20 and 30 double junctions in which the middle sound is $-\mathbf{u}$ - are sometimes heard with quite different consonants. For example, in SUTHU (23) hulifua 'to be paid' (cf. hulifa 'to pay') is heard as hulifwa; and in XHOSA (31) ukulumua 'to be bitten' (cf. ukuluma 'to bite') is heard as ukulunywa.
20. There is a marked type of word prominence in the languages of this zone, which consists in the lengthening of the penultimate vowel. In Group 20 this is normally confined to the last word in the sentence, but in others it usually occurs in each word.
21. There is an alternance of radical tonc in each of these languages, but in Groups 10 and 30 there is a type of alternance which appears to be without parallel in other Bantu languages. Although these are two-tone languages, there are three possible tone-patterns for verbals with simple radicals in certain tenses. Thus in VENDA (in) -lim- 'hoe' and -rum- 'send' have quite distinct tonal behaviour, and in addition -baḑ- 'carve', which is usually similar tonally to -lim-, has its own patterns in three or four tenses. In XHOSA (3I) also there are three kinds of radical from the point of view of tonal behaviour, thus -lim- 'cultivate' and -thum- 'send' are tonally quite distinct, but -6oph- 'bind' which usually behaves like -thum- has different patterns in some tenses. This type of threefold tonal alternance distinguishes these groups from all others. ${ }^{1}$

[^0]22. There is a difference in the tonal behaviour of the dependent verbal prefixes and those for the first and second persons in each of these languages. For example, in VENDA (II) bafula (---) 'they forge', rifula ( - $^{--}$) 'we forge'; in SUTHU (23) utlabona (-_--) 'he will see', utlabona ( - $^{--}$) 'you (sing.) will see'; or in XHOSA (3I) Ba6alile (- - ) 'they have counted', si6alile ( $-\ldots$ ) 'we have counted'.
23. In Group 10 the nominal suffix has an alternance of tone but extensions do not; this means that there is a maximum of four patterns for nominals of all lengths. In the other groups there is a tonal alternance both on extensions and on suffixes in nominals, which gives rise to a larger number of possible tone-patterns the longer the stem.

GROUP 10
I KOREKORE, \&xc.
IIa Sangwe
IIb KOREKORE
IIc 'Tabara
IId Bū̄ya
12 ZEZURU
13 MANYIKA, \&xc. 13a MANYIKA 13b Tebe
14 NDA $\bar{U}$
I5 KARADGA
16 KALADA

ZONE T

GROUP 20
21 TSWA, \&c.
21a Heygwe 2Ib TSWA
22 GWAMBA
23 THODGA 23a HLADGANU
23b Tsonga
23c Jonga
23d Bila
24 RODGGA

GROUP 30
31 COPI
32 TODGA

Characteristics of the Zone
In some ways there is a fairly close relationship between Group 20 and the languages of the previous zone. Since, however, the arranging of the groups into zones is largely dictated by convenience of reference, it is preferable to put these three groups into a zone by themselves. The following description of the characteristics follows the same plan as that used in the previous zone.

1. As in the languages of Zone $S$, there are about ten radicals in most of these languages which consist of a consonant only, as -n- 'rain'. In Group 30, however, there are only seven or eight of these radicals, although even this is greatly in excess of the two or three of other zones.
2. There are genders which regularly include words referring to small things in a number of these languages. In $11-13$ there is a $\mathbf{k a} / \mathrm{tu}$ gender, and in KARADGA (15) swi/bu, e.g. swingurube/bungurube 'small pig(s)' (cf. ngurube/ngurube 'pig(s)'); while in some of the languages of Group 20 there is $\int \mathrm{i} / \mathrm{swi}$ (or zwi), e.g. in TSWA (2I) fimutana/zwimitana 'small village(s)'; comparing these with muti/ miti 'village(s)', it will be scen that the stem of the first pair is different as well.
3. There is an extension - $\mathbf{u}$ - in each language. It serves to express the passive, and is used by itself only in Groups 10 and 30, e.g. in ZEZURU (12) -ras- 'throw away',
-rasu- 'be thrown away'; or in COPI (31) -wong- 'deceive', -woygu- 'be deceived'. In Group 20 the extension usually occurs as part of the compound -iu-, e.g. in HLADGANU (23a) -kum- 'find', -kumiu- 'be found'.
4. Extensions -el- and -is- occur in Groups 20 and 30 with these vowels, e.g. in RODGA (2 4 ) -yis- 'carry', -yisel- 'carry for'; -bon- 'sec', -bonis- 'show'. In Group 10 , on the other hand, both of the corresponding extensions have the same indeterminate vowel, e.g. in NDAU (14) -par- 'scrape', -parir- 'scrape for', but -pet- 'bend', -peter- 'bend for'; and -kur- 'grow', -kuris- 'cause to grow', but -pon- 'get well', -pones- 'cure'.
5. Independent nominals have single prefixes throughout the zone.
6. Extra independent prefixes occur regularly only in Group 10, where they govern both nominal and verbal agreements. In the other two groups nominals with the extra suffix -ni govern the same agreements as nomino-verbals, which have the prefix ku- or gu, e.g. in TODGGA (32) nyumba-ni guamuntu 'in the house of the man'. COPI (3I) in addition to the extra suffix sometimes has the extra prefixes haand mu-, but these make no difference to the agreements, e.g. munyumba-ni kuakue 'in his house'.
7. Double dependent prefixes appear to occur in COPI (31) only, e.g. mndoyga wawunene 'a good tree', pl. mindonga yayinene.
8. In Groups 20 and 30 the extra dependent prefix is linked to the nominal with the common -a-, but in Group io by an indeterminate vowel. This is heard as a, e, or $\mathbf{o}$ according as the vowel of the prefix is $\mathbf{a}, \mathrm{i}$ (or zero), or $\mathbf{u}$ respectively, before the zero prefix which serves as the singular to ba- it is heard as with a, e.g. in ZEZURU (i2) musue uetsoko 'the monkey's tail' (tsoko/tsoko 'monkey(s)'), rutsoka ruomunhu 'the person's foot', pl. tsoka dzabanhu, but rutsoka ruatenzi 'the master's foot', pl. tsoka dzabatenzi. The principal exception to this is in MANYIKA (13) where the linking vowel is usually -e-.
9. Nominals are used as sentences in Group 10 with no modification of the prefix, e.g. in ZEZURU (I2) rukoba rupami 'a wide river' or 'the river is a wide one'. The principal exception in this group appears to be NDAU (14) which apparently prefers the copula -ri in such cases, e.g. iyi iri mhatso yaygu 'this is my house', pl. idzi dziri mhatso dzaygu. In the other groups there is usually an additional element prefixed to the nominal, e.g. in RODGA (24) bafambi 'travellers', ibafambi 'they are travellers'; in COPI (31) the element is different for independent and dependent nominals, e.g. mndonga 'a tree', imndonga 'it is a tree', cilo ncacinene 'the thing is a good one', pl. silo nsasinene.
10. A suffix -e is the sign of the dependent tense in the affirmative in Group 10, and in TOIDGA (32) also. In Group 20, however, this suffix is not used, as in COPI (31), e.g. -dzib- 'know', micidziba '(that) you should know', i.e. -ci- -a is the sign of the dependent tense.
II. There is a suffix -ile in Groups 20 and 30 , but in $\operatorname{COPI}$ (3r) -ite is used with those radicals which consist of a consonant only, e.g. -pf- 'hear', hipfite 'we have heard'.
11. The tense systems of these languages are not very complex, and there are relatively few tense signs. At most a double distinction of past time appears possible and a single future time reference, without the use of time words, e.g. in ZEZURU (12) -pind- 'enter', tapinda 'we entered (to-day)', takapinda 'we entered (before to-day)'.
12. The tense signs used in Group 30 are unusual for this zone, e.g. in COPI (31) -hum- 'come out', hidihumile 'we came out', i.e. -di- -ile ; hinahuma 'we shall go out', i.e. -na- -a.
13. 'There are negative tenses in each of the groups of this zone. For example, in 'TODGA (32) the negative sign is kha-, as in hinabala 'we shall count', neg. khahinabala, but there is often a different tense sign as well in the negative, as higgubala 'we are counting', neg. khahibali.
14. Relative clauses are introduced in Group io by a special link word consisting of -a with the dependent prefix to agree with the antecedent, e.g. in KALADA (16) cinu ca banu bakayeta 'the thing the people did', pl. zwinu zwa banu bakayeta. In the other groups there is a special fixed suffix to the verbal in many cases, and the clause is introduced by link word. One peculiarity in many of these languages is that some of the tense signs used in relative verbals do not occur in ordinary tenses, e.g. in TODGA (32) nadiwona 'I saw', ningawona-go '(which) I saw', where the tense sign - yga- -a is peculiar to relative verbals.
15. There are very large series of consonant alternances in radicals in these languages, TODGA (32) having about thirty distinct single consonants in first radical position.
16. There are five-vowel systems in each of the languages of this zone, but seven different vowel qualities are frequently heard in speech.
17. In Groups 10 and 30 the alternances in the first radical consonant are often masked in junction with certain prefixes. For example, in ZEZURU (r2) the alternance $\mathbf{s} / \mathrm{ts}$ is obscured in junction with the zero prefix which has ma- as its plural, as in tsero/masero 'basket(s)', but tsara/matsara 'line(s)', where tsero and tsara are really $\chi$ sero and $\gamma$ tsero respectively. Or in TODGA (32) alternances such as $\mathbf{k h} / \underline{\underline{g}}$ are masked in junction with the prefix li-, e.g. likhoha/makhoha 'bat(s)', but likhokho/magokho 'coconut(s)' where likhokho is really ligokho.
18. In Groups 10 and 30 the pronunciation of double junctions with -u-frequently involves the use of special consonant clusters. For example, in NDAU (14) muana 'child' is heard as myana, while in TODGA (32) gubua 'to dry up' is heard as gubgwa.
19. Adequate tonal data is only available for Group 10 , where there is tonal alternance on the radical, and on nominal suffixes. Grammatical tone also occurs, and sometimes is the only distinguishing feature in tense formation, e.g. in ZEZURU ( 12 ) ticafamba ( _-_) 'we shall travel', ticafamba ( _--_) 'we are still travelling'.

## General Conclusion

Many of the gaps in these descriptions of the characteristics of the different zones are due to the incompleteness of the available data. Others, however, have arisen owing to the limitations imposed by the size of this work. This meant that from the large amount of information collected careful selection had to be made.

In making this selection two main purposes were kept in mind. It was clearly desirable that those who are interested should be able to draw the most important of the isoglosses on their maps. For this reason corresponding features have been described from zone to zone as far as possible.

The main intention of the descriptions and examples, however, was to demonstrate
the linguistic basis of the classification. From those which have been given it should have become clear that the group is a unit with a purely linguistic significance, whereas the zone is not. Moreover, they have thrown into relief the element of arbitrariness in the choice of differentia which is inescapable in any grouping of languages. Any who may have looked in vain for some indication of the closeness of the relationship between one group and another should bear in mind that there is no standard against which to measure such relationships. It was, therefore, necessary to avoid expressing any ideas on this subject, since they could not have a truly objective basis.

As has been emphasized from the outset of the work, it is avowedly tentative and experimental. This means chiefly that it lays no claim to finality, but is to be treated as a foundation on which something more permanent may in time be built.

## FULL CLASSIFIED LIST OF THE BANTU LANGUAGES

In the following list the first name given for each language is the one which is used by the speakers of that language as far as is known. The others given in parentheses include the most important of those names which have been used at some time or other to refer to it.

Where the prefix to be attached to the form of the name shown here is known, it is placed immediately after it. The fact that in some cases no prefix is given must not be interpreted as meaning that none is used, but simply that up to the present there is no evidence on the point.

GROUP 10
A.ri Dgolo
A. 12 KUNDU
A. 3 Mbonge (Rombi)
A. 14 Lue (W. Kundu)
A. 15 LUNDU (Rondo)

GROUP 20
A. 21 Mbuku
A. 22 KWIR!
A. 23 SUBU, j-
A. 24 DU̧ALA (Wuri)

GRoup 30
A. 3 I BU̧BI, i- (Ediya)

GROUP 40
A. 41 Bati (Cenga)
A. 42 BO (Borkey)
A. 43 Koko
A. 44 BASA (Mvela)
A. 45 Sjkj
A. 46 DGUMBA
A. 47 Gbea

GROUP 10
B.ri NZABI, bi-
B. 12 Sebo (W. Kota)
B. 13 Tsogo, u-

ZONE A
A. 51 NOHU (Limba)
A. 52 Naka (Puku)
A. 53 Langi
A. 54 Dgumbi (Kombe)
A. 55 BEDGA
A. 56 Seke (Bulu)
group 60
A. 61 YAUUNDE (Eundu)
A. 62 BULLU
A. 63 Ntum
A. 64 Maka
A. 65 Zjmu ( Njiem )
A. 66 FAD
A. 67 Make

GROUP 70
A. 71 MYENE, u-
A. 7 ra MPUDGWE, u- (Mpongwe)
A. 7 Ib Rungu, u- (Dyumba)
A.7IC GALWA (Dkomi)
A. 72 DUMA, 1 j -
A. 73 KELE, dj- (Dgomo)
A. 74 KUTA, j- (Kota, Sake)

ZONE B
GROUP 10
B. 14 Cira, i- (Sango)
B. 15 Punu, yi-
B. 16 LUMBU

GROUP 20
B. 21 MBEDE, le- (Mbete, N.E. Teke)
B. 22 Mbamba, le-
B. 23 'I'saya, le-

GROUP 40
B. 4 I MFINU, e- (Funika, Mfunuŋga)
B. 42 BOMA, e- (Buma)
B. 43 TIENE, ke- ('Tende)
B. 44 SAKA'I'A, ki- (Lesa, Tete)
B. 45 YANZI, ki-
B. 46 Dgoli (Dgulu)
B. 47 Dina (Dzin)
B. 48 MBUNU, gi- (Mbunda)
B. 3 I FUMU, i- (Dgung
B. 32 Tege, i-(W. Teke)
B. 33 Boma, i-
B. 34 YAKA
B. 35 TIO, i- (S.W. Teke, Lali)
B. 36 DEE, esi-
B. 37 WUMU, e- (Wumbu, Mbunu)

## ZONE C

GROUP 10
C.í BUDGILI
C. 12 Bukojgo
C. 13 Kaka (Yaka, Yayga)
C. 14 Gundj
C. 15 Pande
C. 16 Nzelj, li- (Ndzali)
C. 17 Kota

GROUP 20
C. 21 BADGIT-LOI
C. 2 ra LOI
C. 2 rb BUBADGI̧ (Rebu)
C.2Ic Nu̧nu
C. 22 SEDGGELE, ke-
C. 23 Tu̧mba
C. 24 Bulja
C. 25 NTUMBA, \&c.
C. $25^{\text {a }}$ NTUMBA, lu-
C.25b Waŋgata
C. $25^{c}$ Mpama
C. 26 LUSEDGO
C. 26 a POTO, $\mathrm{l}_{\mathrm{j}}$ -
C. 26 b MPESA
C. 26 c MBU̧DZA, lj-
C.26d MAŋGALA (Lingala)

GROUP 20
C.26e BULUKI
C. 26 f Kangana
C. 26 g LIKU, i-
C. 27 BUJA, i-

GROUP 30
C. 31 DGOMBE, lj-
C. 32 Buela (Lingi)
C. 33 Batj (Beŋge)

## GROUP 40

C. 4 I $B U A, l i$ - (Bali, Bango)
C. 42 A 1 BA, li- (Dgelima, Bco, Tungu, Buru)

GROUP 50
C. 51 Mbesa
C. 52 SO, hi- (Soko)
C. 53 PUKI, tu- (Topoke)
C. 54 LUMBU, tu- (Turumbu)
C. 55 KILI, i- (Lokele)
C. 56 Foma, li-

GROUP 60
C.61 MODGO-DKU̧NDU
C.6ıa MODGO, lu- (Lolo)
C.6rb DKUNDU, lu-
C.6ic Paŋga, i-
C.6Id Tjtus
C.6re Buulj
C.6ıf Bukala
C.6ıg Yailjma
C. 62 Lalja
C. 63 DGANDU

GROUP 70
C. 71 TETELA, o- (Sungu)
C. 72 Ku̧su (Kongola, Fuluka)
C. 73 DK YTY (Dkucu)
C. 74 Yela, bo-
C. 75 KELA, o- (Lemba)
group 80
C.8ı Dengese (Dkutu)
C. 82 Songomeno
C. 83 BUSODO (Kuba)
C. 84 Lele, usi-
C. 85 Wongo (Tukongo)

ZONE D
GROUP IO
D.II Mbole
D. 4 I KONZO, olu- (Konjo)
D. 42 NDANDIf, oru- (Su)
D. 43 Nyanga

GROUP 50

GROUP 20
D. 21 Balf (Bua, Bango)
D. 22 Amba, ku-(Hamba)
D. 23 Kumu
D. 24 Songola
D. 25 LEGA, ki- (Rega)
D. 26 Zjimba
D. 27 Bangubangu
D. 28 HOROHORO, ki- (Guha)

GROUP 30
D. 31 PERI (Pere)
D. 32 BIRA, lu-(Sese, Sumburu)
D. 33 Huku, li- (Mbuba, Nyari, Bvanuma)

GROUP 60
D. 6 I NYARUANDA, uru-
D. 62 RUNDI, iki-
D. 63 FULIRO
D. 64 SUBI, uru-
D. 65 HADGGAZA
D. 66 HA, iki-
D. 67 Vinza

## ZONE E

GROUP 10
E.ir NYORO, oru- (Gupgu, Kyopi)
E. 12 TORO, oru-
E. 13 NYADKOLE, olu- (Hima)
E. 4 CIGA, olu-
E. 15 GANDA, \&c.
E.i5a GANDA, olu-
E.r5b Sese, olu-
E.r6 SOGA, olu-
E.i7 GWERE, olu-
E. 18 NYALA, olu-

GROUP 20
E. 21 NYAMBO, eki- (Karagwe)
E. 22 HAYA, eki-
E.22a ZIBA, eki-
E.22b Hamba
E.22c Hangiro
E.22d Nyakisaka
E.22e Yoza
E. 22 f Endangabo
E. 22 g Bumbira
E.22h Mwani
E. 23 DZINDZA, eci- (Jinja)
E. 24 KEREBE, eki-
E. 25 JITA, eci- (Kwaya)

GROUP 40
E. 41 RAGOLI, ulu-
E. 42 GUSSII, iki- (Kisii)
E. 43 KUR】A, iki-
E. 44 ZANAKI, \&c.
E.44a ZANAKf, iki-
E.44b $\ddagger$ SENYई, iki-
E.44c Ndali
E.44d Sjora
E.44e Sweta
E. 44 Kiroba
E.44g Ikjzy
E.44h Girango
E.44k Simbjitj
E. 45 NATA, iki- (Ikoma)
E. 46 Sonjo (Sonyo)

GROUP 50
E. 51 KIKUYU (Gikuyu)
E. 52 EMBU, ki-
E. 53 MERU, ki-
E. 54 SARAKA
E. 55 KAMBA, ki-
E. 56 DAł̧SO, ki-

GROUP 30
E. 3 I MASABA
E.3ıa GISU, lu-
E.3rb KISU, ulu-
E. 3 rc BUKUSU, ulu-
E. 32 HADGA, olu- (Luhya)
E.32a WADGA, olu-
E.32b Tsotso
E. 33 NYORE, olu-
E. 34 SAAMIA, olu-
E. 35 NYULI, olu-

GROUP 60
E. 61 RWO, ki- (Meru)
E. 62 CAGA
E.62a HAI, ki- (Mosi, Macame)
E.62b WUNJO, ki- (Marangu)
E.62c ROMBO, ki-
E. 63 Rusa
E. 64 KAHE, ki-
E. 65 GWENO, ki-

## GROUP 70

$$
\text { E. } 72 \mathrm{e} \text { RABAI, ki- }
$$

E. 73 DIGO, ki-
E. 74 TAITA
E.74a DABIDA, ki-
E. 74 b SAGALA, ki-

ZONE F
GROUP Io
F.ir TODGWE, ki-
F. 12 Bende

GROUP 20
F. 21 SUKUMA, ki-
F. 22 NYAMWESİ, ki-
F. 222 NYANYEMBE, ki-
F.22b Takama
F.22c Kiya
F.22d Mwerj

GROUP 20
F. 23 SUMBWA, ki-
F. 24 KIMBU, ki-
F. 25 BUDGU, iki-

GROUP 30
F. 31 N
F. 32 RIMI, ki- (Nyaturu)
F. 33 LADGİ, ki- (Irangi)
F. 34 Mbugwe

ZONE G
Group 30
G. 37 KUTU, ki-
G. 38 VIDUNDA, ci-
G. 39 SAGALA, ki-

GROUP 20
G. 21 TUBETA, ki- (Taveta)
G. 22 AŞU, ci- (Pare)
G. 23 SAMBAA, ki- (Sambara)
G. 24 BONDEI, ki-

GROUP 30
G.3I ZIGULA, ki-
G. 32 DHWELE, ki-
G. 33 ZARAMO, ki- (Dzalamo)
G. 34 DGULU, ki-
G. 35 RUGURU, iki-
G. 36 Kami, ki-

GROUP 40
G. 41 Tikulu, \&cc.
G.4ra Tikulu, ki-
G.4rb Mbalazi, ki-
G. 42 SWAHILI, ki-
G.42a AMU, ki-
G.42b MVITA, ki-
G. 42 c MRIMA, ki-
G.42d UNGUJA, ki-
G. 43 PEMBA, \&c.
G.43a PHEMBA, ki-
G.43b TUMBATU, ki-
G.43c HADIMU, ki-
G. 44 KOMORO
G. 44 a DGAZIJA, ki-
G.44b Njuani, ki-

GROUP 50
G. 5 I POGOLO, ciG. 52 Ndamba

GROUP 60
G.6ı SADGO, esi-
G. 62 HEHE, eki-
G. 63 BENA, eki-
G. 64 PADGWA, eki-
G. 65 KIDGA, eki-
G. 66 Wanji
G. 67 Kisi

ZONE H
GROUP Io
H.I $\operatorname{Vili}$, ki-
H. 12 Kunyi
H.i3 Bembe
H. 44 Ndiggi
H.r 5 Mboka
H.ı6 KODGO
H.ía E. KODGO, ka- (Fiote)
H.ı6b YOMBE, ki-
H.i6c SUNDI
H.rod BWENDE
H.r6e N.E. KODGO, ki-
H.iff KODGO, ki-
H.r6g S. KODGO, kisi-
H.r6h ZOMBO, ki-

GROUP 20
H. 2 I NDODGO, ki- (Mbundu)
H. 22 Mbamba

GROUP 10
K.in CIOKWE, ci- (Cioko)
K. 12 LUIMBI, ci-
K. 13 LUCAZI, ci- (Ponda)
K. 14 LUENA
K. 15 MBUNDA, ci-
K.i6 Nyengo
K. 17 Mbwela
K. 18 Dkajgala

## GROUP 20

K. 21 LOZI, si- (Kololo)

GROUP 40
H. 41 Mbala, ki-
H. 42 HUDANA, ki- (Huana)

ZONE K
GROUP 30
K. 31 LUYANA, esi- (Luyi)
K. 32 MBOWE, esi-
K. 33 Mpukusu (Goba)
K. 34 Masi
K. 35 Simaa
K. 36 Sanjo
K. 37 Kwangwa

GROUP 40
K. 4 I TOTELA, eci-
K. 42 SUBIA, eci-
ZONE L

GROUP 10
L. I I PENDE, ki- (Pindi, Pinji)
L. 12 Samba, u-
L. 13 KWESE, u- (Pindi)

GROUP 20
L. 21 Kete, lu-
L. 22 Binji
L. 23 SODGE, lu- (Yembe)
L. 24 LUNA (Inkongo)

GROUP 30
L. 34 HEMBA, kiL. 35 SADGA

GROUP 40
L. 4 I KAONDE, ci- (Kahonde)

GROUP 50
L. 5 I SALAMPASU
L. 52 LUNDA, ci-
L. 53 LUWUNDA, ci-

GROUP 30
L. 3 I LUBA-LULUA
L.3ェa. LUBA-KASAI, ci-
L.3ib LULUA
L.3ic Lange, cisi-
L. 32 KANYOKA
L. 33 LUBA-KATADGA, ki-

GROUP 60
L. 6 I Mbwera, si-
L. 62 DKOYA, si-

## ZONE M

GROUP 10
M.in PIMBWE, ici-
M. 12 Rungwa
M. 13 FIPA
M.I4 RUDGU
M. 15 MAMBWE, ici-

## GROUP 20

M. 21 WANDA, ici-(Wandia)
M. 22 MWADGA, iciina-
M. 23 NYIHA, isi- (Nyika)
M. 24 MALILA, isi-
M. 25 SAFWA, isi-
M. 26 Iwa
M. 27 Tembo

GROUP 30
M. 3 I NYIKYU̧SA, iki- (Konde, Kukwe, Sokili)

## GROUP 40

M. 41 TAABWA, \&c. (Ruŋgu)
M.41a TAABWA, iciM. 4 Ib Sila
M. 42 BEMBA, \&c.
M.42a BEMBA, ici- (Wemba)
M.42b Dgoma
$\mathrm{M}_{4}$.2c Lomotua
M.42d Nwesi
M.42e Lembue

GROUP 50
M. 5 I BIISA, ici-(Wisa)
M. 52 LALA, ici-
M. 53 SWAKA, iciM. 54 LAMBA, iciM. 55 Seba

GROUP 60
M.61 LENJE, ci- (Ciina Mukuni)
M. 62 SOLI, ci-
M. 63 ILA, ci- (Sukulumbwe)
M. 64 TOIJGA, \&c.
M. 64 a TODGA, ci-
M.64b Toka
M.64c Leya

ZONE N
GROUP 30
N. 3 I NYANJA, \&c.
N.3Ia NYANJA, ci-
N. 3 ib CEWA, ci- (Peta)
N. 3 rc MADANJA, ci-
N. 32 Mbo
N. 33 Mazaro

## GROUP 20

N. 21 TUMBUKA, \&c.
N. 2 Ia TUMBUKA, ci-
N. 21 b POKA, ci-
N.21c KAMADGA, ci- (Henga)
N.2Id Senga
N.2ie Yombe
N. 2 If Fungwe
N. 21 g Wenya
N. 21 h Lambia
N.2ik Wandia

## ZONE P

GROUP 10
P.in NDEDGEREKO, ki-
P. 12 RUŋ̧Hf, ki- (Rufiji)
P.r3 MATUMBI, ki-
P.I4 DGINNDO, kiP.I5 MBUDGA

GROUP 20
P. 21 YAO, ci-
P. 22 MWERA, ci-

GROUP 40
N. 41 NSEDGA, ci-
N. 42 KUNDA, ci-
N. 43 NYUDGWE, ci- (Tete)
N. 44 SENA, ci-
N. 45 Rue, ci-
N. 46 Podzo, ci-

GROUP 20
P. 23 MAKONDE, ci-
P. 24 NDONDE, ci-
P. 25 MABIHA, ci- (Mavia)

GROUP 30
P. 31 MAKUA, i-
P. 32 LOMWE, i-
P. 33 DGULU, i-
P. 34 Cuabo, ci- (Cuambo)

GROUP 10
R.ir MBUNDU, u- (Nano)
R. 12 Ndombe
R. 13 Nyaneka

GROUP 30
R. 31 HERERO, \&c.
R.3ia HERERO, oci-
R.3rb Mbandieru R.3Ic Cimba

GROUP 20
R. 21 KUANYAMA, oci- (Humba)
R. 22 NDODGA, oci- (Ambo)

GROUP 40
R. 41 YEEI (Yeye)

> ZONE S
group io
S.ir VENDDA, ci-

GROUP 20
S. 21 TSWANA, si- (Cwana)
S. 2 Ia ROLOD, si-
S.2rb Kgatla, si-
S.21c Mangwato, si-
S. 22 PIDI, si- (Pedi)
S. 23 SUTHU, si-

ZONE T
GROUP Io
T.ir KOREKORE, \&c.
T.ria Sangwe
T.irb KOREKORE, ci-
T.irc Tabara, ci-
T.rid Budya
T.iz ZEZURU, ci-
T. 13 MANYIKA, \&c.
T.iza MANYIKA, ci-
T.13b Tebe, ci-
T. 14 NDAU, ci- (Sofala)
T. 15 KARADGA, ci-
T.i6 KALADA, ci-

GRoup 30
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S. 32 ZULU, \&c. S.32a ZULU, isiS.32b DGONI, isi-
S. 33 SWAZI, \&c.
S. 34 NDEBELE, isi- (Tebele)

GROUP 20
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T.2ra Hlengwe, si-
T. 2 rb TSWA, si-
T. 22 GWAMBA
T. 23 THODGA
T. 23a HLADGANU (Sangaan)
T.23b Tsonga
T.23c Jonga
T.23d Bila
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GROUP 30
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T. 32 TODGA, gi-

## INDEX TO THE LANGUAGES

In the following alphabetical index the approximate geographical location of the languages has been indicated by reference to the territory where they are spoken. Here is a list of the abbreviations used:
A. Angola
B. Bechuanaland
C. Cameroons
C.B. Belgian Congo
C.F. French Middle Congo
G. Gaboon
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N. Nyasaland
N.R. Northern Rhodesia

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R.U. Ruanda-Urundi
S.A. Union of South Africa
S.R. Southern Rhodesia
S.W. South-West Africa
T.T. Tanganyika Territory
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Pokomo (K.) E. 7 I
Ponda (A.) K.r3
Mpongwe (G.) A.7ıa
Poto (C.B.) C.26a
Mpoto (T.T.) N. 14
Mpovi (G.) B.r3
Puki (C.B.) C. 53
Puku (R.M.) A. 52
Mpukusu (A.) K. 33
Mpungwe (G.) A. 7 Ia
Punu (G.) B. 15
Putsu (P.E.) T. 26
R- See also L-
Rabai (T.T.) E. 72 e
Ragoli (K.) E. 41
Rebu (C.B.) C. 2 Ib
Rega (C.B.) D. 25
Mrima (T.T.) G.42C
Rimị (T.T.) F. 32
Rolon (B.) S. 21 a
Rombi (C.) A. ${ }_{3}$
Rombo (T.T.) E.62c
Rondo (C.) A. 15
Ronga (P.E., S.A.) T. 24
Rori (T.T.) G.6I
Rotse (N.R.) K. 3 I
Ruanda (R.U.) D.6r
Rue (P.E., S.R.) N. 45
Rufiji (T.T.) P.iz
Ruguru (T.T.) G. 35

## THE BANTU LANGUAGES

Rujhij (T.T.) P.I2
Rumbu (C.B.) C. 54
Rundi (R.U.) D. 62
Rungu (G.) A. 7 rb
Rungu (T.T., N.R.) M. 14
Rungu (C.B., N.R.) M.41
Rungwa (T.T.) M.iz
Rusa (T.T.) E. 63
Rwo (T.T.) E.6I
Saamia (U.) E. 34
Safwa (T.T.) M. 25
Sagala (K.) E.74b
Sagala (T.T.) G. 39
Sagara, N. (T.T.) G.I2
Sakata (C.B.) B. 44
Sake (G.) A. 74
Salampasu (C.B.) L. 5 I
Sama (A.) H. 23
Samba (C.B.) L. 12
Sambaa, Sambara (T.T.) G. 23
Sanga (C.B.) L. 35
Sangaan (P.E., S.A.) T.23a
Sango (T.T.) G.6r
Sango (G.) B. $x 4$
Sangwe (S.R.) T.ira
Sanjo (N.R.) K. $3^{6}$
Saraka (K.) E. 54
Sasi (T.T.) F. 2 I
Seba (N.R.) M. 55
Sebo (G.) B.12
Seke (G.) A. 56
Sena (P.E.) N. 44
Senga (N.R.) N.2rd
Nsenga (N.R.) N. 41
Sengele (C.B.) C. 22
Sengeju (T.T.) E. 56
Sengo (C.B.) C. 26
Sese (U.) E.15b
Sese (C.B.) D. 32
Sh- is written $\mathrm{S}-$ and indexed as S -
Sjkj (C.) A. 45
Sila (C.B., N.R.) M. 4 Ib
Silele (C.B.) C. 84
Simaa (N.R.) K. 35
Sjmbjitj (T.T.) E.44k

Sinji (A.) H. 36
Sjiora (T.T.) E.44d
Sira (G.) B. 14
Siska (N.) N. 15
So (C.B.) C. 52
Sofala (S.R., P.E.) 'T. 14
Soga (U.) E.i6
Sokili (T.T.) M. 31
Soko (C.B.) C. $5^{2}$
Soli (N.R.) M. 62
Sona (S.R.) T.11-15
Songe (C.B.) L. 24
Songo (A.) H. 26
Songola (C.B.) D. 24
Songomeno (C.B.) C. 82
Sonjo, Sonyo (T.T.) E. 46
Sojo (C.B.) C. 83
Su (C.B.) D. 42
Subi (T.T.) D. 64
Subia (B.) K. 42
Su̧bụ (C.) A. 23
Suku (C.B.) H. 32
Sukulumbwe (N.R.) M. 63
Sukuma (T.T.) F. 2 I
Sumburu (C.B.) D. 32
Sumbwa (T.T.) F. 23
Sundi (C.B.) H.i6c
Sungu (C.B.) C. 7 r
Suthu (S.A.) S. 23
Sutu (T.T.) N. 13
Swahili (K., T.T., Z.) G. 42
Swaka (N.R.) M. 53
Swazi (Swaziland) S.33a
Sweta (T.T.) E. 44 e
Tabara (S.R.) T.ıre
Taabwa (C.B., N.R.) M.4ıa
Taita (K.) E. 74
Taveta (T.T.) G. 21
Tebe (P.E.) T.13b
Tebele (S.R.) S. 34
Tege (C.F.) B. 32
Teke, E. (C.F.) B. 31
Teke, N. (C.F.) B. 23
Teke, N.E. (C.F.) B. 21
Teke, S. (C.B.) B. 37

Teke, S.W. (C.F., C.B.) B. 35
Teke, W. (C.F.) B. 32
Tembo (A.) H. 34
Tembo (N.R.) M. 27
Tende (C.B.) B. 43
Tengo (T.T.) N. 13
Tete (C.B.) B. 44
Tete (P.E.) N. 43
Tetela (C.B.) C. 7 I
Th- (for $\theta$-) see \$-
Thonga (P.E.) T. 23
Tiene (C.B.) B. 43
Tikulu (K.) G. 4 I
Tio (C.F., C.B.) B. 35
Titụ (C.B.) C.6rd
Toka (N.R.) M.64b
Tomba (C.B.) C. 25
Tonga (N.R., S.R.) M. $64{ }^{a}$
Tonga (N.) N. 15
Tonga (P.E.) T. 32
Tongwe (T.T.) F.ir
Topoke (C.B.) C. 53
Toro (U.) E.12
Totela (N.R.) K. 41
Tsaya (C.F.) B. 23
Tsh- See C-
Tsogo (G.) B. 13
Tsonga (P.E., S.A.) T.23b
Tsotso (K.) E.32b
Tswa (P.E.) T. 2 rb
Tswana (B., S.A., S.R.) S.2I
Tubeta (T.T.) G. 21
Tukongo (C.B.) C. 85
Tuku (C.B.) D. 13
Ntum (C.) A. 63
Tymba (C.B.) C. 23
Ntumba (C.B.) C. 25
Tumbatu (Z.) G. 44
Tumbi (T.T.) P.I3
Tumbuka (N.) N. 2 ra
Tungu (C.B.) C. 42
Turu (T.T.) F. 32
Turumbu (C.B.) C. 54
Tusi (R.U., T.T.) D.61, 66
Ulij (C.B.) C.6íe

Unda (C.B.) L. 53
Unguja (Z.) G.42d
Mvela (C.) A. 44
Venda (S.A., S.R.) S.ir
Vili (C.F.) H.ir
Vinza (T.T.) D. 57
Mvita (K.) G.42b
Wanda, Wandia (T.T.) M. 21
Wandia (N.R.) N.2 Ik
Wanga (K.) E. 32 a
Wangata (C.B.) C. 25 b
Wanji (T.T.) G. 66
Wemba (N.R.) M. 42
Wenya (N.R.) N. 2 Ig
Wisa (N.R.) M. 5 I
Wongo (C.B.) C. 85
Wumu, Wumbu (C.B.) B. 37
Wungu (T.T.) F. 25
Wunjo (T.T.) E.6zb
Wuri (C.) A. 24
Xhosa, Xosa (S.A.) S. 3 I
Yaiļ̧ma (C.B.) C.6ıg
Yaka (G.) B. 34
Yaka (C.B.) H. 31
Yaka (C.F.) C.I3
Yanga (C.F.) C.x
Yanzi (C.B.) B. 45
Yanzi (C.B.) C.21, B. 26
Yao (T.T., P.E., N.) P. 21
Yaunde (C.) A. 61
Yeei (B.) R. 4 I
Yela (C.B.) C. 74
Yembe (C.B.) L. 24
Yeye (B.) R. 4 I
Yombe (C.B.) H.ı6b
Yombe (N.R.) N.2re
Yongo (A.) H.35b
Yoza (T.T.) E.22e
Nzabi (G.) B.in
Zanakj (T.T.) E.44a
Zaramo (T.T.) G. 33

Nzelj (C.F.) C. 16
Zezuru (S.R.) T. 12
Ziba (T.T.) E.22a
Zigmba (C.B.) D. 26
Zimba (C.B.) D. 15

Zjimu (C.) A. 65
Zinza (T.T.) E. 23
Zombo (A.) H. 16 h
Nzuani (Comoro Is.) G.44b
Zulu (S.A.) S. 32
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By c. DOKE
(Published by Percy Lund, Hunphiries, © Co., Ltd.)

THE DISTRIBUTION OF THE SEMITIC AND CUSHITIC LANGUAGES OF AFRICA

An Outline of Available Information Compiled by m. A. BRyan
(Published by the O.xord University Press)


[^0]:    1 This curious fact may be explained historically by assuming that radicals like the Venda -badand the Xhosa -6oph-originally had long vowels, as indeed related radicals do in those languages which have an alternance of vowel quantity. It is found that the tone-patterns of verbals with these radicals are identical with those that are obtained by telescoping similar patterns for radicals with one extension. Thus in Vença robaḍa (--_) 'we carved' has a tone-pattern distinct from that of rolima (---) 'we hoed', but if the second and third tones of the patterns of rollmela ( $--_{-}$) 'we hoed for' are merged, then a similar pattern is obtained. If then -bag-originally had a long vowel and behaved tonally like a radical with an extra syllable (as actually happens in many languages of other zones), it is easy to see how the present tonal behaviour arose. An exactly similar explanation will account for the cases where the behaviour of radicals like - boph - in Xhosa differs from those like -thum -. This means that though the alternance of quantity disappeared at some time, the persistence of the extra tone-pattern due to it has caused the emergence of an extra member in the alternance of radical tone in verbals.

