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THE ROLE OF TONE  
IN THE  
SOUTHERN SOTHO LANGUAGE

by

Gladstone Llewellyn Letele

(Thesis presented for the Degree of Doctor of Philosophy  
in the University of London)

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# INTRODUCTION.

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## I N T R O D U C T I O N .

Scholars in the field of Bantu languages have from an early stage drawn attention to the tonal features in various Bantu languages and to the possibility that tone might be an important factor in the system of these languages. But it was not until recently that any appreciable effort was made to study tone in Bantu languages.<sup>1)</sup>

In the field of Sotho, apart from odd references to tone in grammar books and dictionaries,<sup>2)</sup> the first real study was made by Professor Daniel Jones in conjunction with Mr. Sol. T. Plaatje in "A Sechuana Reader" (dated 1916), and "Tones of Secwana Nouns" (dated 1929). Dr. A. N. Tucker's work on tone contained in "A Comparative Phonetics of the Suto-Chuana Group of Bantu Languages" went a step further.<sup>3)</sup> These preliminary works point the direction and give a basis for further investigation.

But even if there were not so much direction as that given by these earlier works, it is not difficult for the observer to discover that any particular act of speech in Sotho is characterised, among other things by tone, that in the same sentence there is a high degree of consistency in tonal pattern, and that despite slight variations from one individual speaker to another or from one set of circumstances to another, the basic pattern is consistently maintained. For instance:-

It is obvious from this that the immediate considerations are:

(1) The choice of suitable units.  
nta'te 'ua^ngola father writes

(2) The analysis of the tonal features and tonal behaviour of such units.  
nta'te 'u 'abala father reads

(3) The description of the sentence in terms of these units.  
In each of the Sotho examples the tonal pattern is constant. For some reason these two examples which appear to be the same kind of sentence have different tonal patterns. The validity of the choice must be judged by the suitability of the units for such description. These units have been arrived at by employing certain criteria of grammatical form, namely, composition (e.g. the nature of the elements composing the unit) and behaviour in context, emotional state of the speaker, etc. Secondly, to discover these features are amply demonstrated in the body of this thesis.

The object then is, first to establish the consistent tones which appear to be an integral part of the sentence and are not due merely to subjective factors such as the the elements composing the unit) and behaviour in context, emotional state of the speaker, etc. Secondly, to discover these features are amply demonstrated in the body of this thesis.

Field. I have chosen Southern Sotho (SS) as my field. The essential basis of analysis is by observing the All the data is drawn from my personal experience with this language which is my mother tongue, and has been confirmed by the application of this principle of substitution the units can be classified according to tonal characteristics, visited London at different times during the last three years.

Method. In order to establish the system underlying the tonal patterns of the sentence it proves to be convenient to make use of smaller units, and then by determining the tonal make-up and behaviour of such units to establish the system. Tone is indicated in three different ways, as follows:

It.....  
Graphical ly...

It is obvious from this that the immediate considerations are:

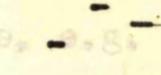
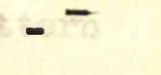
- (1) The choice of suitable units.
- (2) The analysis of the tonal features and tonal behaviour of such units.
- (3) The description of the sentence in terms of these units.

Since the choice of units is dictated primarily by the need for a method of describing the tonal features of the sentence, the validity of the choice must be judged by the suitability of the units for such description. These units have been arrived at by employing certain criteria of grammatical form, namely, composition (e.g. the nature of the elements composing the unit) and behaviour in context. These features are amply demonstrated in the body of this thesis.

The essential basis of analysis is by observing the tonal features of comparable units in identical contexts. By the application of this principle of substitution the units can be classified according to tonal characteristics, and certain inferences can be drawn about their tonal behaviour. From these inferences it proves to be possible to describe the tone patterns of the sentence.

Tone-marking and Orthography. As a preliminary to this study it is necessary to have a suitable method of indicating tones.

Tone. Tone is indicated in three different ways, as follows:

1. Graphically, by means of short horizontal lines showing the relative tonal levels, e.g. ba<sup>ˆ</sup>nana (girls)   
 ba<sup>ˆ</sup>nana (where the last two syllables are <sup>ba</sup>ba'na (children) 

Curved brackets round these marks show that they represent the tones as they actually occur in speech. Square brackets then could be used to show that the marks represent essential tones.<sup>4/</sup> Gliding tones are indicated by oblique lines drawn from the point of origin of the tone; thus ↘ for a high tone falling to low, ↙ for a low tone falling to a still lower level, and ↗ for a mid rising tone.

2. By means of symbols: It is often necessary to refer to tones individually. At a later stage when the tones are assigned such reference names as low tone, high tone, mid tone, the first letter in each name will be used to denote the tone: the lower case letter to denote speech tones and the upper case letters for essential tones.<sup>4/</sup> To represent a tonal pattern the symbols are separated by dots, e.g. ba'na l.h or L.H.

To represent gliding tones the symbols marking the end points of the tone are used without interspacing dots, e.g.

'twa<sup>1</sup>(<sup>5</sup> ) hl or HL, 'hlooho<sup>6</sup> (head) (↘ -) mh.m or HH.M

3. By means of diacritics: Where it is necessary to indicate tone in the body of the written word the following convention is used: A vertical stroke before a syllable denotes a high tone on that syllable, e.g. ba'na (where the syllable na has high tone). A circumflex is used instead of

TOPE LEVELS.

a vertical stroke when the high syllable is immediately followed by a syllable with mid tone, e.g. ba^nana (where the last two syllables form a pattern high-mid).

Except in the case of the mid tone syllable which is shown by the circumflex before the preceding syllable, absence of a tone mark implies low tone, e.g. masa'ka (kraals) where the first two syllables have low tone.

Orthography: In a description of tone such as this one the orthography adopted must be of such a kind that tone can be indicated simply and clearly. The current SS

orthography is already encumbered with too many diacritics and the addition of further diacritics to indicate tone

would be confusing. For the purpose of this description, therefore, a special orthography is used. It is a modified form of the orthography suggested by Dr. Tucker in "Sotho-Nguni Orthography and Tone Marking." (1949). Its main features are indicated in Appendix I.

It will be observed in the course of this study that the junction of words in a sentence is marked by a tone-step (cf. Tonal Transition on pp. 13 - 14 ). This characteristic is made use of in determining a method of dividing and linking words. In this orthography therefore, a space or hyphen between words implies a tone-step.

The hyphen is used where, for various reasons, one of the components giving rise to the tone-step cannot be regarded as a word.

What person

TONE LEVELS.

In order to describe the tonal features of the SS sentence three tone levels have to be recognised, namely low level, high level and mid level. Since tone is relative, the interval from one tone level to another varies. The variation is due to objective as well as to subjective factors as will become clear later. Ordinarily the interval from low to high level would be about five or six musical semitones while that from mid to high level would be about one to two semitones, as the following diagram illustrates:

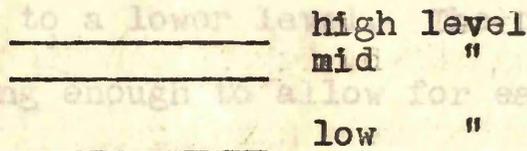


Figure I.

The low and high tones contrast sharply enough to be always distinguishable from one another in one and the same pattern. The mid tone, as an Essential Tone, only occurs after a high tone. In all other positions the occurrence of a tone at mid level is usually a speech realisation of what is essentially a low or high tone.

TONE PATTERNS: All words, phrases and sentences of SS are characterised by Tone Patterns. That is to say, each syllable of a word has tone. The succession of individual tones on the syllables of a word constitute the Tone Pattern of that word.

SPEECH TONES: Tone Patterns in actual speech are determined to some extent by various factors in each context. The determining factors may be the proximity of one tone to another, the rate of speaking, the intensity of the voice, stress or emphasis. The following is an account of some of these factors, the circumstances in which they regularly occur and the part they play in determining Speech tones.

LENGTH: It is a natural phenomenon in SS speech that the speaker can hold a syllable at a given tone level for only a certain duration beyond which the voice tends to lose pitch and to drift downward to a lower level. The optimum duration (i.e. the norm) is long enough to allow for each syllable to be pronounced easily and yet not so long that downward drifting is observed. In SS the speech tones are generally static, but on long syllables they are realised as gliding tones. (Long syllables are those which have a duration about twice the duration of the average syllable in normal speech. In the same way the term Length is used here to denote longer duration than that of the average syllable).

Length regularly occurs in the following situations:

(a) On the penultimate syllable of a sentence, e.g.

'ki-mure:na (he is a chief) - where the sign : denotes that the preceding syllable has length.

u'ma:ng? (who are you?)

Where interrogative words as 'mang? are not used absence of Length on the penultimate syllable distinguishes interrogative sentences from non-interrogative sentences, e.g.

\*ki-murena? (Is he a chief?) cf. \*ki-mure:na (He is a chief).

(b) On Long Vowels: When two <sup>or more</sup> identical vowels occur in juxtaposition the tendency in speech is to pronounce them as one long vowel. e.g.

phoomela (cf phohomela) realised as pho:mela ( \_ \_ )  
(loud crying)

aatamela (he approached) " " a:tamela ( \_ \_ )

'ba'si:'le mila'mu " " 'ba'si:'le ( \_ \_ )  
(they have left the sticks behind)

'ba'atsamaya (they are going) " " 'ba:tsamaya ( \_ \_ )

ha'aa'ya (he is not gone) " " ha: 'ya ( / )

ha'a'atlu'ha (he has not left) " " ha: 'tlu'ha ( / )

(In the last two examples, ha: 'ya and ha: 'tlu'ha, the iang wawax gliding tones on the long vowels are not indicated by the diacritic tone-marks).

In all the above examples there is the alternative of pronouncing the juxtaposed vowels as separate syllables, although in instances such as the last two examples this alternative is not easily achieved.

There are some words which have an essentially long vowel, which is not the result of juxtaposition of two vowels, though they may without ambiguity be written with two vowel letters. These are of the following. The following are typical examples. 6)

phooko (wether) realised as pho:ko ( / - )

kweetsa (whirlpool) " " kwe:tσα ( / - )

does not allow for the adjustment necessary for the voice  
 to reach fully from one tone level to another. In such  
 ^kɪ:lɑ (gizzard) realised as ^kɪ:lɑ ( / - )  
 li^tuupe (the shakes) " " li^tu:pe ( - / - )  
 (For such words the essential tone on the long vowel is  
 marked with an oblique line /, or with the symbols HH (see p. 4)  
 e.g. ^phooko 6) [ / - ], or HH.M ).

Some Ideophonic and Interjective words (Categories V  
 and VI) have long vowels. 5) e.g.

- 'twa:!! (white) ( \ ) (Ideophone)
- tsu:!! (swoop) ( - )
- e:!! (yes) ( - ) (Interjective)

Some of the Demonstratives (Category II type 3) occur  
 with Ideophonic 7) length in some circumstances. e.g.  
 thaba 'tsela:!! ( \ ) (those mountains far away).

It is clear from these instances that Length, either  
 as a regular feature of the sentence construction or as a  
 lexical feature of the word, plays a part in determining  
 speech tones. It will also be observed that Length plays a  
 part in the other situations (described below) which  
 determine speech tones.

The Proximity of different tones to one another under certain  
 circumstances is a factor in determining speech tones. The  
 extent to which such proximity determines speech tones depends  
 largely on the rate of speaking. In rapid speech, for  
 instance, it is as if the decreased duration of the syllables

does not allow for the adjustment necessary for the voice to reach fully from one tone level to another. In such circumstances, therefore, the interval between tonal levels is comparatively small, as in the following instances:

An essentially low tone is realised at about mid level,

(1) When it occurs between two high tones. e.g.

ba'sima'ni 'ba'kai? (where are the boys?)

ba'sima'ni... [ \_ - - ] realised as ( \_ - - )

ha'kimu'tsi'bi ha'ntle (I do not know him well)

ha'kimu'tsi'bi... [ u' - - ] realised as ( \_ - - )

(ii) In the Tone Pattern L.H.M the tone on the initial syllable is normally realised as a mid tone in most speech contexts. e.g. ba'sadi (women) [ \_ - - ] realised as ( - - - )

An essential high tone immediately following a long syllable of low tone is usually realised in speech as a mid tone. e.g. the final syllable of lisa'ka (kraal) [ \_ - - ]

is realised as a mid tone in kietsa lisa'ka ( - - - ) (I am putting up a kraal). cf. lisa'ka 'livile ( - - - )

(the kraal has fallen) where the final syllable of lisa'ka is realised as a high tone since the preceding syllable has no penultimate length.

A low tone occurring on a long syllable is realised as a low falling tone (i.e. falling from low level to a low level).

Under the following circumstances the interval from one tonal level to another is comparatively greater than it is in other circumstances:

From this account it should be clear that in most of the circumstances that determine the speech realisation of tones length is an important factor. /Before.....

Before a down-step tonal transition (cf p 14) of a high tone is slightly higher than it is in most other circumstances e.g. 'u're'ki'sitse diphahlo (he has sold the goods) 'u'reki'sitse 'pe're 'lisali (he has sold horse and saddle)

It is also clear from this account that the realisation of tones and Tone Patterns in speech depends on a large variety of factors. Some of these factors, as Length, are a shade higher than preceding high syllables in the same word. A succession of high tones in a word, as in Proximity of tones to one another, are objective and consistent enough to be treated as integral features of the language. But there are also other factors, as rate of speaking, intensity, emphasis, which are mainly subjective. These vary considerably from one situation to another and cannot be predicted. The Speech realisation of the Tone Pattern of a word can therefore be represented only for a particular act of speech.

A low tone occurring after a long high tone (i.e. a high falling tone) is lower than in other circumstances e.g. 'ki-mu'su:thu (he is a Mosotho) cf 'ki-mu'suthu? (Is he a Mosotho?)

A low tone occurring on a long syllable is realised as a low falling tone (i.e. falling from low level to a still lower level) e.g. ha'ba'riba:tli (they do not want us).

From this account it should be clear that in most of the circumstances that determine the speech realisation of tones Length is an important factor. In the first set of circumstances (described on pp 7 - 6) Length is the ..

~~Length is the~~ main determining factor. In the second set of circumstances (pp 9 - 10) the absence of Length seems to be a necessary condition. In the last set of circumstances (p 11) the occurrence of Length is again the main determining factor.

It is also clear from this account that the realisation of tones and Tone Patterns in speech depends on a large variety of factors. Some of these factors, as Length, Proximity of tones to one another, are objective and consistent enough to be treated as integral features of the language. But there are also other factors, as rate of speaking, intensity, emphasis, which are mainly subjective. These vary considerably from one situation to another and cannot be predicted. The Speech realisation of the Tone Pattern of a word can therefore be represented only for a particular act of speech.

By comparing the Tone Patterns of a word as they are realised in a number of similar<sup>s</sup> speech contexts, it is found that although the interval from one tone to another differs from one context to another, the outline of the Tone Pattern is practically the same in all these contexts.

Essential Tone: It is clear then that the constant feature of a Tone Pattern is the relative position of the individual tones in it. Thus, for example, if the Tone Pattern of a word (e.g. n'tho - thing) is realised as low-high in a particular act of speech - i.e. the first tone lower than

the second - it may be concluded that in any other similar act of speech, the Tone Pattern of that word will be realised as low-high (i.e. the first tone will always be lower than the second tone), but that the interval between these tones will not be the same in any two acts of speech.

This feature of consistency in outline - i.e. in the relative position of the individual tones in a Tone Pattern - provides a convenient means of representing essential Tone Patterns of words. By simply indicating schematically the relative level of each tone (as low, high, or mid) without giving any indication of the actual interval from <sup>one</sup> tone level to another, the Essential Tone Pattern is thus represented. 'Hau (the children are yours)

TONAL TRANSITION.

The up-step transition is shown by doubling the tone mark on the higher syllable, e. <sup>essential</sup> "hau (those children) consist of not more than three tone levels. The average SS sentence pattern may consist of as many as five, six or even more <sup>actual</sup> ~~distinct~~ tone levels. It stands to reason therefore that the word patterns occur in different keys in the sentence. For example the sentence

nta'te 'u're'ki'le ^pere "tse-'tharu (father has bought three horses)

[- - ] [- - - - ] [- - ] [- - ] which has an over-all pattern of at least six tonal levels can be represented tonally as a succession of three-level

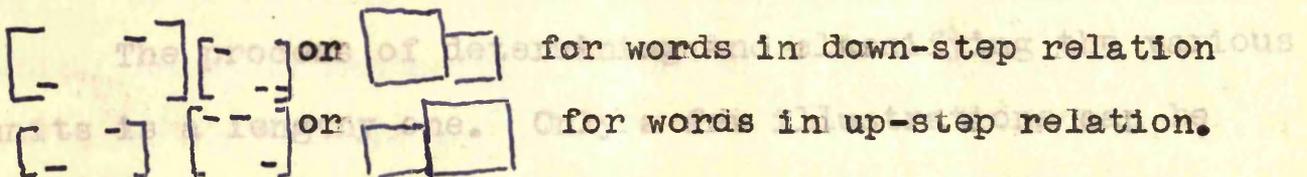
Tone Patterns occurring in different keys, thus :-

( - - ) ( - - - - ) ( - - ) ( - ) ( ^ - )

This changing from one key to another is what is meant by tonal transition or tone-step.

A transition from a higher to a lower key is called a down-step transition, and a transition from a lower to a higher key is called an up-step transition.

Transitions may be indicated graphically by brackets or rectangles of unequal height, as in the following diagrams:



In the written sentence a space or hyphen separating two words denotes a down-step transition, e.g.

ba'na 'ki-'ba'hau (the children are yours)

The up-step transition is shown by doubling the tone mark on the higher syllable, e.g. ba'na "bau (those children)

(where the syllable "ba- of 'bau is higher than the syllable 'na of ba'na).

There are also the ideophones and interjectives which can be distinguished by their peculiar form and behaviour.

(of pp/36-44) Interjectives for instance do not as a rule occur in syntax relation with other words. Neither interjectives nor ideophones occur in conjunction with inflectional elements such as occur in nominal words.

WORDS AND WORD-CATEGORIES: In order to describe the tonal features of the sentence it is best to make use of smaller units. (cf pp 2-3). Whatever units are adopted they must be suitable for this purpose.

The units adopted here are determined by employing certain criteria of grammatical form, namely, the nature of the elements composing the unit, and the behaviour of the unit in contexts.

The process of determining and classifying the various units is a lengthy one. Only a few illustrations can be given here.

DIVISIONS OF THE SENTENCE: The first step is to divide the sentence up into units which seem to have distinctive grammatical characteristics. For instance it is obvious that one kind of unit (cf verbs on pp 88-135) has a large variety of forms whose incidence is determined by such circumstances as grammatical time, mood, aspect, implication etc (cf tense forms pp 97-117), a feature which other words do not possess.

There are also the ideophones and interjectives which can be distinguished by their peculiar form and behaviour.

(cf pp 136-144) Interjectives for instance do not as a rule occur in syntax relation with other words. Neither interjectives nor ideophones occur in conjunction with inflectional elements such as occur in nominal words.

These characteristics, as well as other peculiarities of tone, length, stress, distinguish ideophonic and interjective word-units from other words. Of the remaining kinds of units (or words) it is found that the large majority are what may be called nominal words. These may be further sub-divided into Independent nominals (nouns), Dependent nominals, and Classless nominals. (see pp 21 -87).

By proceeding in this way the various kinds of units which occur in sentences are established. Such units are referred to here as words.

Basic forms: As an illustration, a word, 'ba'buhlaswa (they are care~~l~~ess) is taken at random. Then a list is made of all the free-forms <sup>10)</sup> which appear to be regular variants of this word, thus: 'ba-buhlaswa (careless ones), 'ka-buhlaswa (with carelessness), 'li'buhlaswa (and carelessness), 'ha'buhlaswa (carelessly), 'ki-buhlaswa (it is carelessness), buhlaswa (carelessness), ha'ba-buhlaswa (they are not careless), buhlasweng (in carelessness), etc.

~~For various reasons which are too lengthy to be gone into here~~ Such a series of related words as this one is regarded <sup>here</sup> as a grammatical series. This means ~~among other things~~, that all the forms in such a series can be described in terms of one of the forms in the same series. Supposing the minimum or smallest form in the series (i.e. buhlaswa) is selected as the basic form, then all the other forms would be described as grammatical variants of this form. e.g.

'ba'buhlaswa (they are care~~l~~ess) could then be described as

Basic Form buhlaswa occurring in conjunction with the prefixal concord element 'ba-' ('ba is the subject concord of class 2). The variants of the Basic form are referred to here as Inflected Forms, and the prefixal or suffixal elements which distinguish them from the Basic Form are called Inflectional elements.

The following list of the six principal word-categories does not include all the possible kinds of words which occur in SS. There are a few words which require special classification since they do not conform to the general characteristics of any of the categories listed here. For the purpose of tonal description, however, it is not necessary to distinguish all the sub-categories except where such distinction is relevant to tonal description.

<u>Category IV.</u>	<u>Category V.</u>	<u>Category VI.</u>
'ja (eat)	'go! (sold)	táre'nd (no)
'raa (buy)	'nye'le! (quiet)	o' (is it so?)
'sáetsa (work)	'tle'le'le'le!	ee! (yes)
tis (come)	'twaa! (white)	'nele (oh! alas!)
halla (seek)	ri! (be even)	'jo! (ah! wool!)
tsamaya (walk)	lore! (burst to ashes)	

In each Category the words are shown in their basic form. In the abbreviations C.I. for Category I, C.II for Category II, and so on, are occasionally used to refer to these Categories.

The mark ! of exclamation is used in Categories V and VI to show that these words have peculiar tonal and other features which

TONAL GROUPING WORD CATEGORIES.

Tonal grouping of words is made from two different aspects. On the basis of grammatical form (see pp 15-17) words may be divided into the following main categories:

<u>Category I.</u>	<u>Category II.</u>	<u>Category III.</u>
<u>Nouns:</u>	1. bo'na (they)	1. 'ifo (on the hearth)
me'tsi (water)	2. ^bohle (all)	hu'dimu (above, up)
bu'hllali (wisdom)	3. 'bau (those)	2. ha'raru (three times)
^hlooho (head)	4. 'ba'hai (his)	'hangata (often much)
<u>Nomino-verbs:</u>	5. ba'fi? (which?)	3. 'hae'su (in my coun- mu'ng? mu'ng)
hu'ja (to eat)	6. bangata (many)	'kwanu (this way) ^jwalo (like that)
hutsamaya (to walk)	7. 'thata (hard)	4. 'thuko (aside)
husi'tsibi (not to know)	8. 'ba-l'lang (mourners)	'kai? (where?) 'ka^jenu (today) 'kgale (long ago)

The importance of this grouping becomes clear later

<u>Category IV.</u>	<u>Category V.</u>	<u>Category VI.</u>
'ja (eat)	'po! (cold)	t'she'e! (no)
'reka (buy)	'nye'le! (quiet)	e'u! (is it so?)
'sebeta (work)	'tle'ke'le'le!	ee! (yes)
tla (come)	'twaa! (white)	'hele (oh! alas!)
batla (seek)	ri! (be even)	'jo! (ah! woe!)
tsamaya (walk)	lore! (burnt to ashes)	

In each Category the words are shown in their basic form.

The abbreviations C.I. for Category I, C.II for Category II, and so on, are occasionally used to refer to these Categories.

The mark ! of exclamation is used in Categories V and VI to show that these words have peculiar tonal and other features which cannot be indicated by these tone marks

TONAL GROUPING. will be observed that tone is studied on three aspects. Tonal grouping of words is made from two different aspects. The first grouping is mainly lexical and applies to all categories. It is made by comparing the tonal level of the first syllable of the radical or stem of words in similar contexts. From this comparison two major Tone Groups emerge: X-words which consist of a high tone on the first syllable of the radical or stem e.g. li'fa (wealth), 'reka (buy), 'ifo (on the hearth), 'tlere! (of red). Y-words which consist of a low tone on the first syllable of the radical or stem e.g. muthu (person) bo'na (they, them) bala (read, count) etc.

The importance of this grouping becomes clear later on, particularly in the section on inflection and word-formation.

The second tonal grouping is based mainly on the behaviour of words in contexts.<sup>14)</sup> Each category, as far as this tonal grouping is concerned, is a separate system. But for practical purposes the categories are treated in three main divisions, namely, (a) Categories I - III (i.e. nominal words). (b) Category IV (verbal words), (c) Categories V and VI (Ideophonic and Interjective words).

In the analysis of the individual word categories

that follows, it will be observed that tone is studied on three distinct planes:

1. On the lexical plane concerning the role of tone in word-formation. The word is analysed in order to establish the tonal relationship of its constituent elements to one another and to those of corresponding words.
2. On the inflectional plane concerning the tonal behaviour of the Basic word when it occurs in conjunction with various inflectional elements.
3. On the Syntactical plane concerning the tonal behaviour of words (Basic and Inflected forms) in syntax relation with other words.

*Here he is again regarding an inflected form not as a word (as hence entitled) but as a list of inflexions.*

PART II.

NOMINAL WORDS (Categories I - III).

As a preliminary to this section a table is given here, showing the tonal groups into which nominal words are divided. The arrangement of the table is based on, and illustrated from, words of Category I since it is in this Category that the largest variety of tonal patterns is to be found.

Tonal Grouping of Nominal Words

X-words: (difficulty)

Tone Group:

I.	<u>li'tsha</u> , <u>n'tho</u> (lake) (thing)	[ - - ]		
II.	<u>li'tshana</u> , <u>n'thwana</u> (little lake) (little thing) } <u>mu'suthu</u> (a Mosotho) <u>'tshimu</u> (field) <u>'phoo'felo</u> (animal)	[ - - - ]	[ - - - ]	[ - - - ]
III.	<u>li'tsha<sup>^</sup>nyana</u> , <u>n'tho<sup>^</sup>nyana</u> (little lake) (little thing) } <u>mu'su<sup>^</sup>thwana</u> (little Mosotho) <u>'tshi<sup>^</sup>ngwana</u> (little field) <u>mu<sup>^</sup>sadi</u> (woman) <u>'hlooho</u> (head) <sup>6)</sup>	[ - - - ]	[ - - - ]	[ - - - ]

/IV-1 .....

IV-2.....

X-words (continued)

Tone  
Group:

IV-1 n'thwananyana  
(tiny little thing) [ \_ \_ \_ ]

mu'su'thunyana  
(little Mosotho) [ \_ \_ \_ ]

'tshi'munyana  
(small field) [ \_ \_ \_ ]

mu'sajana (little  
woman) [ \_ \_ \_ ]

'hlohwana  
(little head) [ \_ \_ \_ ]

IV-2. mu'simani (boy) [ \_ \_ \_ ] [ \_ \_ \_ ]

'tsjetsi (difficulty) [ \_ \_ \_ ] [ \_ \_ \_ ]

mu'dikwa'dikwani  
(giddiness) [ \_ \_ \_ ] [ \_ \_ \_ ]

Y-words:

Tone  
Group:

I. lisa'ka (kraal) [ \_ \_ \_ ]

kgo'mu (cow) [ \_ \_ \_ ]

likulwa'ni  
(youth after initiation) [ \_ \_ \_ ]

II. lisa'kana (small kraal) [ \_ \_ \_ ] [ \_ \_ \_ ] [ \_ \_ \_ ]

kgo'ngwana (heifer) [ \_ \_ \_ ] [ \_ \_ \_ ] [ \_ \_ \_ ]

likulwa'nyani  
(as for likulwa'ni) [ \_ \_ \_ ] [ \_ \_ \_ ] [ \_ \_ \_ ]

III. lisa'ka^nyana (small kraal) [ \_ \_ \_ ]

kgo'mu^nyana (heifer, etc) [ \_ \_ \_ ]

IV-1. mufita'katsila (passer-by) [ [ \_ \_ \_ ] [ \_ ] ] (I have built a wall)

IV-2.....

Y-words (continued)

IV-2. sina'kangwedi (glow worm) [ \_ \_ - \_ ] [ \_ \_ - \_ - \_ ]

hlohlo'dingwani (somersault) [ \_ \_ - \_ ] [ \_ - - \_ - \_ ]

V. muthu (person) [ \_ - ]  
ntlu (house) [ \_ - ] (i.e. the end pattern

muthwana (small person) [ \_ - - - ] in Contexts 1, 2 and 3

murena (chief) [ \_ - - - ] if any other noun of Tone Group II

mathunyana (little person) [ \_ - - - ] above Contexts

mufirifiri (trouble) [ \_ - - - ] above Contexts IV-2

The end pattern will occur as H.L., H.H and H.M in Contexts

1, 2 and 3 respectively. (In Categories II and III nominal

The main division of words into X and Y Tone Groups is based on the tonal level of the inti initial syllable of the stem, as explained on page 19. Further grouping into Tone Groups I to V is primarily based on the end pattern of words, (i.e. on the tone pattern described by the last two syllables of a word) (See pp 68 - 70). For instance, in Tone Group I all words in the basic form occur in an end pattern L.H in all syntax contexts. (See p 69 et seq.).

In Tone Group II a word of Category I may occur in any of three distinct tonal patterns, depending on the kind of syntax context in which it occurs. There are three kinds of syntax contexts, each requiring a particular tonal pattern in nouns of Tone Group II; thus:

Context 1: ki'a'hi'le li'rako [ \_ - \_ ] (I have built a wall)

Context 2: li'ra'ko liwile. [ \_ - - ] (the wall has fallen)

Context 3: ki'ahi'le li'rako "leu [ \_ - - ] (I built that wall)

It will be observed that the tone patterns of li'rako in these three contexts differ from one another in respect of the tonal level of the last syllable. This syllable has high low tone in the first Context, high tone in the second Context, mid tone in the third Context. (i.e. the end pattern of this noun is H.L, H.H, and H.M in Contexts 1, 2 and 3 respectively). Similarly if any other noun of Tone Group II (X or Y) is substituted for li'rako in the above Contexts its end pattern will occur as H.L, H.H and H.M in Contexts 1, 2 and 3 respectively. (In Categories II and III nominal words of Tone Group II occur in tone patterns which end as H.L and H.H, but never in the third tone pattern which ends H.M).

Words of Tone Group IV-2, e.g. mu'tlotlwani (hut), occur with an end pattern L.L in Context 1, L.H in Contexts 2 and 3. (see pp 68 - 75)

It is necessary to explain Tone Group IV in greater detail.

Tone Group IV is sub-divided into Tone Groups IV-1 and IV-2. The following table shows how these groups compare with one another and with Tone Group V.

		Pattern 1*	Patterns 2 & 3*
IV-2	<u>mu'simani</u>	[ _ - _ ]	[ _ - _ ]
IV-1	<u>mu'rwetsana</u>	[ _ - _ ]	[ _ - _ ]
V.	<u>muthunyana</u>	[ _ - _ ]	[ _ - _ ]

\*) Pattern 1, Pattern 2, Pattern 3 denote the Tone Pattern of a word in Contexts 1, 2, 3 respectively

It is obvious that Tone Groups IV-1 and V have the same end pattern, L.L, and on this basis should be grouped together. It is also obvious that Tone Group IV-2, with an end pattern L.H in Contexts 2 & 3, is a group by itself. A more logical arrangement then would be to number IV-2 as Tone Group IV, and IV-1 as Tone Group V. Such an arrangement, however, is not adopted here because it is not always possible to draw a sharp dividing line between Tone Group IV-1 and Tone Group IV-2. Many words which one speaker regards as belonging to Tone Group IV-1 are regarded as belonging to IV-2 by another speaker, or by the same individual <sup>on</sup> different occasions. e.g. ba'sitsana 'ba'kai? or ba'sitsa'na 'ba'kai? (where are the girls?). The examples ba'sitsana (girls), ba'disana (herd-boys), ma'fu'mahadi (ladies), mi'fu'tafuta (many kinds), are typical of the greater proportion of words in Tone Group IV as a whole, in so far as they consist of high tone on the pre-penultimate syllable (i.e. they have an ending ...H.L.L. in Context 1). A comparatively small number in Tone Group IV-1 have an ending ..H.L.L.L (e.g. ba'sitsanyana), or even ..H.L.L.L.L (e.g. ba'disananyana); in such examples an alternative grouping under IV-2 is not possible. But the vast majority of words in Tone Group IV consist of an ending H.L.L. It is more practicable to group all these words simply as Tone Group IV (which implies further sub-grouping into IV-1 or IV-2 or both), and to indicate the sub-group where it has been definitely established

CATEGORY I. (Nouns and Nomino-verbs).

This category consists of two main kinds of words. e.g.

Nouns

Nomino-verbs

- |                    |                             |
|--------------------|-----------------------------|
| bathu (people)     | hu'ja (to eat)              |
| m'pho (gift)       | hu'se'betsa (to work)       |
| mu'se'betsi (work) | husi'se'betsi (not to work) |
| 'pula (rain)       | hu'tshwa'ra-bathu/-ha'ntle  |
| m'me (mother)      | (to treat people well)      |

Both nouns and nomino-verbs have a basic form consisting of two components: a class prefix and a stem. e.g.

Class certain classes the noun may occur without its prefix

prefix      stem

- |     |        |                         |   |
|-----|--------|-------------------------|---|
| ba- | refi-  | thu                     | is followed by another word which is in |
| mu- |        | 'se'betsi               |   |
| hu- |        | 'se'betsa               |   |
| hu- | conco- | 'tshwa'ra-bathu-ha'ntle | noun (see pp 73-74)                     |

Each and every noun belongs to one or other of the twelve classes or concord agreement series shown in Table I. (These classes are set out in the order given by Meinhof.)

Nomino-verbs belong to class (15). Each class has its kgadi characteristic class-prefix and words of this Category usually have, as their initial component, the characteristic prefix of the class to which they belong. For instance in the noun bathu (see class 2 in Table I) the characteristic prefix is ba-, and all nouns of class 2 consist of this prefix as their initial component.

A comparatively small number of nouns do not appear to have a class prefix. e.g.

- |                              |                                      |
|------------------------------|--------------------------------------|
| jwa'la (beer) - class 14.    | ngwa'na (child) - class 1.           |
| jwa'ng (grass) - class 14.   | (cf. ba'na (children) cl. 2)         |
| lutl (mountain range) cl. 5. |                                      |
| (also lilutl -- cl. 5)       | the purely lexical features of nouns |

In class 9, the class-prefix as<sup>a</sup> distinct syllable only occurs in conjunction with monosyllabic stems, e.g.

- m'pho (gift)
- nkwe (leopard)
- ntsɔ (eagle)

(where the initial consonant is a syllable representing the class-prefix). In all other nouns which have a stem of more than one syllable the class prefix does not occur as a separate syllable.

In certain classes the noun may occur without its class-prefix. This happens in syntax contexts where the noun is immediately followed by another word which is in direct concord agreement with such noun (see pp 73-74)

e.g. one may say sa'ka "la'dikgomu instead of la lisa'ka "la'dikgomu for "cattle kraal"

In class 1a nouns do not, as a rule, have a class-prefix. e.g. m'me (mother), ma'lume (maternal uncle/aunt), ra'kgadi (paternal aunt)

**LEXICAL FEATURES:** From the foregoing account it should be clear that the basic forms e in this category consist of only two components: the class-prefix and the stem. These two components together constitute a single unit with characteristics of form, tone and behaviour which belong to it as a unit. These characteristics which distinguish the unit as a whole are more appropriately examined on the plane of grammatical form (see from p 58... ..)

In this section the purely lexical features of nouns

and nomino-verbals are examined with a view to establishing the part<sup>played</sup> by tone on the lexical plane.

The Class-prefix, is generally a distinct syllable with low tone, as in the examples below (see also pp 58 - 59).

The stem: Taking the stem to be the part immediately after the class prefix, then the underlined element in the following examples is the stem:

muthu (person), masa'ka (kraal), muthwana (little person),  
masa  
masa'kasaka (many kraals)

kgo'mu (cow), Kgo'ngwana (little cow), kgo'mu'hadj (large cow)

mulimi (farmer), timo (agriculture), silimo (year) etc.)

ti'ma (plot, pattern), ti'mana (little plot), ti'ma'nyana  
(little plot)

buru'na (ourselves) buha'ufi (nearness) bu'ka'jenu (this day)  
bu'kau'fela (total, entirety), lihu'dimu (heavens, sky),

buma'di-mabi (misfortune), tsje-ba'dimu (locust),

kulube-mu'ru (bushpig), si'rwala-n'kgwana (praying mantis),

ma'lala-"ala'utswi (recruits in the army).

These examples show that the stems vary considerably in their composition. In some examples the stem is a primary element e.g. (muthu). In others it corresponds to parts of other words, as may be seen from the analysis given below.

In the following analysis the structure of the stem is examined in order to determine the elements which compose it, their tonal relationship to one another and to equivalent elements in other words.

NOUN-STEMS: The basis on which stems are studied could be illustrated by considering groups of words such as the following:

- (a) mulimī (farmer), balimī (farmers), timo (agriculture)  
siliho (year, Spring Season), dilimo (years), ti'ma (plot), lima (plough, plant)
- (b) ta'u (lion), ta'wana (lion-cub), ta'u'nyana (little lion), ta'u'hadi (lionness).

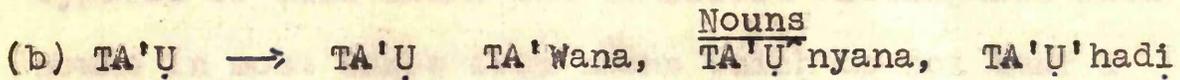
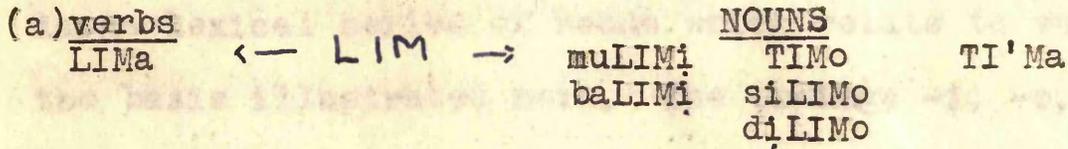
Allowing for slight differences in phonological shape which are determined by established phonological laws, it is possible to abstract from each group of words a common element or root which occurs in all the words of such a group. This common root, as it may be called, is LIM in group (a), TA'U in group (b). By making use of such a root as a common reference, words can be compared, and from such comparison a system of correspondence between various words and kinds of words is established. For instance, in group (a) all the words are described in terms of their similarity or dissimilarity to the common root LIM. e.g. the nouns consist of stems which may be described as forms in which the root LIM occurs in conjunction with a nominal suffixal formative -i, -o, or -a. Similarly in the verb lima the root LIM occurs as a verbal-radical (where the tense-suffix is -a).

In group (b) where the common root is TA'U the stem of the noun ta'u'hadi for example, is described as a form in which the root TA'U occurs in conjunction with the

\* See Tucker "Comparative Phonetics of the Suto-Chwana Group of Bantu Languages."

formative suffix -hadi. Similarly in the stem of the noun ta'u the root TA'U occurs as a noun stem.

The same inter-relationship may be indicated diagrammatically as follows:



For practical purposes, however, it is usual to simplify such a description by expressing one word in terms of another as if the relationship were direct and not through the medium of a common root. In this way the noun stems in (a) above would simply be described as forms in which the verbal radical -lim- (as found in the verb lima) occurs in conjunction with the suffixal formatives -i, -o, or -a. (See pp 37 - 39.)

Purely as a descriptive device it is convenient to regard one of the words in such a series as basic or primary and to describe the other words in the same series as lexical variants of the primary word. The most suitable word to take as the primary form is the one that differs least from the common root. Thus in group (a) the verb lima is taken as the primary form and the nouns are then described in terms of the radical of this verb. Similarly in group (b) the primary form is taken as the stem of the noun ta'u. The other nouns ta'wana, ta'u^nyana, ta'u'hadi

may then be described as occurrences of the stem ta'u in conjunction with the lexical formative suffixes -ana, -nyana, -hadi, respectively.

The nouns in group (a) are characteristic of a large lexical series of nouns which relate to verbs on the basis illustrated here. The endings -i, -o, -a are typical of such nouns and therefore distinguish such nouns in most cases from nouns which do not bear a similar relationship with verbs. The verb lima, on the other hand, has no such distinctive features to indicate a possible relationship with nouns. The same may be said of the stems of ta'wana, ta'u<sup>h</sup>nyana, ta'u'hadi. Their endings (-ana, -nyana, -hadi) distinguish them as belonging to a large lexical series of nominal words which may be compared with other nominal words in the same way as these words are compared with the primary word ta'u. the word ta'u, on the other hand, lacks such distinctive features.

In the following analysis noun-stems are classified as Primary stems and Secondary stems on the basis illustrated above.

PRIMARY STEMS are usually simple forms which cannot be further reduced to simpler or smaller components on any systematic basis. They consist of not more than two syllables in most instances. (There are a small number of

primary stems which consist of more than two syllables).

Monosyllabic stems fall into two tone groups only:

X-stems: those which have high tone. e.g. the underlined syllable in the following nouns: mu'ra (son), li'tsha (lake),

Y-stems: those with a low tone. e.g. mthu (person),  
ntlu (house).

Monosyllabic noun stems always occur in conjunction with the class-prefix. Since the class-prefix is basically (i.e. in the basic form of the noun) a syllable of low tone it stands to reason that:

X-stems in conjunction with the class-prefix will occur in nouns of a Tone Pattern [ \_ - ]

Y-stems in conjunction with the class-prefix will occur in nouns of a Tone Pattern [ \_ \_ ].

Dissyllabic noun stems: The greater proportion of primary noun stems consist of two syllables. e.g.

X-stems (i.e. those with high tone on the first syllable):  
mu'suthu (a Mosotho), mu'futa (kind), ma'riha (winter),  
'pula (rain); mu<sup>~</sup>nna (man), li<sup>~</sup>hapy (melon), <sup>~</sup>tshutso (suet),  
<sup>~</sup>hlooho <sup>6)</sup> (head), <sup>~</sup>nyooko (gall).

Y-stems (i.e. those with low tone on the first syllable):  
sibaka (space, chance), mulala (neck), sitlama (weed),  
phufu (meal, powder), taba (affair, matter), nama (meat);  
mula'mu (stick), lina'ka (horn), pi'tsa (pot), thi'pa (knife).

Nouns with monosyllabic and dissyllabic stems consist

of the following Tone Patterns:

- Tone Group.      X-stems
- I.      [ \_ - ]      e.g. li'tsha (lake) the
- II.      [ \_ - \_ ] [ \_ - - ] [ \_ - - ]      e.g. mu'suthu (a Mosotho)
- II.      [ - \_ ] [ - - ] [ - - ]      the initial 'pula (rain) the
- III.      [ \_ - - ]      the secondary stem i mu'mna (man) what is
- III.      [ - - ]      as a doubled form - i.e. i'tshutso (suet)

Y-stems

- V.      [ \_ \_ ]      the part shown in e.g. muthu (person)
- V.      [ \_ \_ \_ ]      the common root. The ci sitlama (weed) the
- V.      [ \_ \_ ]      corresponds to the initial s taba (a matter)
- I.      [ \_ \_ - ]      Since the tone e.g. v'lisa'ka (kraal)
- I.      [ \_ - ]      is really low (cf. p 58) it sta pi'tsa (pot) that
- (See p 21 et seq. Also p.52, p.54) pp tone on the initial

SECONDARY STEMS: As the illustrations given above show, (pp.26- ),

secondary stems are regarded as regular or systematic variants of other units and are expressed in terms of such units.

On the basis of their relationship to other units

secondary stems may be grouped in the following way: (difficulties)

1. Reduplicated stems: These are equivalent to extension of a unit by the process of doubling. (many pleasures) (pleasures)

(a) <u>Tone Group I(X)</u>	<u>Common Root</u>	<u>Tone Group IV-2(Y)</u>	'PUTA (many kinds) (kinds)
N'KO (nose)	ba'HUL N'KO	diN'KONko	(large nose)
N'THO (thing)	(ancest N'THO	diN'THOntho	(variety of things)
M'PA (stomach)	ba'NOL M'PA	diM'PAMPa	(large stomach)
N'TSA (dog)	(great N'TSA	maN'TSAntsa	(many breeds of dogs)
<u>Tone Group V(Y)</u>	ba'SUTHU suthu	ba'SUTHU	
	proper Mosotho	<u>Tone Group V(Y)</u>	sotho people)
NTSHI (fly)	ba'SIU siu	NTSHI	
	(at dead	ba'SIUSiu	NTSHIntshi (flies)
	night)	ba'SIU	(nights)

In the above examples the common root is equivalent to a complete noun (including the class prefix). In the first example the common root is N'KO. In the primary word it occurs as n'ko (where the initial element n is the class prefix). In the secondary stem it occurs in what is best described as a doubled form - i.e. it is as it were, extended by repeating itself. In both the primary and secondary words the part shown in upper case letters corresponds to the common root. The class prefix of the primary word corresponds to the initial syllable of the reduplicated stem. Since the tonal level of the class prefix is basically low (cf. p 58) it stands to reason that the reduplicated stem will have low tone on the initial syllable - i.e. will be a Y-stem.

(b) non-duplicated

re d u p l i c a t e d

non-duplicated

Group II (X)

III (X)

IV-1 (X)

II (X)

bu'THATA  
(difficulty)

bu'THATA<sup>h</sup>thata  
(the difficulty)

ma'THA'TA<sup>h</sup>thata  
(many difficul-  
ties)

ma'THATA  
(difficulties)

mu'NATI  
(pleasure)

mu'NATI<sup>h</sup>nati  
(very pleasant  
taste, etc)

mi'NA'TI<sup>h</sup>nati  
(many pleasures)

mi'NATI  
(pleasures)

mu'FUTA  
(kind)

- -

mi'FU'TA<sup>h</sup>futa  
(many kinds)

mi'FUTA  
(kinds)

ba'HULU  
(elders)

ba'HULU<sup>h</sup>hulu  
(ancestors)

- -

bu'NOLO  
(softness)

bu'NOLO<sup>h</sup>nolo  
(great softness)

- -

mu'SUTHU  
(Mosothe)

mu'SUTHU<sup>h</sup>suthu  
(proper Mosothe)

- -

ba'SUTHU  
(Basothe people)

bu'SIU  
(night, at  
night)

bu'SIU<sup>h</sup>siu  
(at dead of  
night)

ma'SIU<sup>h</sup>siu  
(many nights)

ma'SIU  
(nights)

Tone (The figures after each word indicate the tone group)			
Group III(X)	III (X)	III (X)	III (X)
li <sup>ˆ</sup> FEELA (vanity)	li <sup>ˆ</sup> FEELA <sup>ˆ</sup> feela (vanity)	ma <sup>ˆ</sup> FEELA <sup>ˆ</sup> feela (vanities)	ma <sup>ˆ</sup> FEELA (vanities)
si <sup>ˆ</sup> DIKWE (circle)	si <sup>ˆ</sup> DIKWE <sup>ˆ</sup> dikwe (circle)	di <sup>ˆ</sup> DIKWE <sup>ˆ</sup> dikwe (circles)	
n <sup>ˆ</sup> NITI (truth)	n <sup>ˆ</sup> NITI <sup>ˆ</sup> niti (the real truth)		di <sup>ˆ</sup> NITI (facts, truths)

Tone			
Group I (Y)	III (Y)	IV-2 (Y)	I (Y)
mu <sup>ˆ</sup> LA <sup>ˆ</sup> TU (trouble) (debt)	mu <sup>ˆ</sup> LA <sup>ˆ</sup> TU <sup>ˆ</sup> latu (the real trouble)	mi <sup>ˆ</sup> LA <sup>ˆ</sup> TU <sup>ˆ</sup> latu (many faults or debts)	mi <sup>ˆ</sup> LA <sup>ˆ</sup> TU (faults, debts)
li <sup>ˆ</sup> SA <sup>ˆ</sup> KA (kraal)	li <sup>ˆ</sup> SA <sup>ˆ</sup> KA <sup>ˆ</sup> saka (kraal)	ma <sup>ˆ</sup> SA <sup>ˆ</sup> KA <sup>ˆ</sup> saka (several kraals)	ma <sup>ˆ</sup> SA <sup>ˆ</sup> KA (kraals)
li <sup>ˆ</sup> TSA <sup>ˆ</sup> TSI (day, sun)		ma <sup>ˆ</sup> TSA <sup>ˆ</sup> TSI <sup>ˆ</sup> tsatsi (many days)	ma <sup>ˆ</sup> TSA <sup>ˆ</sup> TSI (days)

Tone			
Group IV (Y)	III (Y)	V (Y)	V (Y)
TABA (matter affair)	TABA <sup>ˆ</sup> taba (the crux of the matter)	di <sup>ˆ</sup> TABA <sup>ˆ</sup> taba (many matters)	di <sup>ˆ</sup> TABA (matters, affairs)
mu <sup>ˆ</sup> HLOLO (wonder)		mu <sup>ˆ</sup> HLOLO <sup>ˆ</sup> hlolo (great wonder)	
		mi <sup>ˆ</sup> HLOLO <sup>ˆ</sup> hlolo (strange things)	mi <sup>ˆ</sup> HLOLO (wonders)
li <sup>ˆ</sup> TSHWILI (crowd)		ma <sup>ˆ</sup> TSHWILI <sup>ˆ</sup> litshwili (several crowds)	ma <sup>ˆ</sup> TSHWILI (crowds)

In all the above examples the non-duplicated stem consists of two syllables, and the corresponding reduplicated stem consists of four syllables. In the examples in (c) below the non-duplicated stems consist of more than two syllables.

(c) (The figures after each word indicate the tone group)

Non-duplicated (confusion) of verb -reduplicated (some confused)(Y)

'tšhelete (IV-2)(X) di'tšhe'le'tetšhelete (IV-1)(X)  
(money) ma'tšhele'tetšhelete (IV-1)(X)  
(various sums of money)

'phoo'felo (II)(X) di'phoo'fo'lophofolo (IV-1) (X)  
(animal) (many/different animals)

di'ti'mana (II)(Y) di'ti'ma'natimana (IV-1) (X)  
(verse) (several verses)

dihlotshwana (V)(Y) dihlotshwanahlotshwana (V)(Y)  
(small groups) (many small groups)

marantha (V)(Y) maranथarantha (V)(Y)  
(rags, ragged thing) (rags and tatters, very ragged thing)

matsaranka (V)(Y) matsarankatsaranka (V)(Y)  
(jagged edge) (jagged edge)

(d) The following are some of several words which appear to be reduplicated but for which corresponding non-duplicated forms either do not occur or may be traced in other word categories.

Tone Group II (Y)  
TSIKI'tsiki (muddle headed person) of verb -TSIKIla (be dizzy) Y  
liPUTLA'putla (haste) cf. verb -PUTLaka (hurry) (Y)

Tone Group III.(X)  
ma'IDI^idi (unconsciousness) cf verb 'i'DIbana (become unconscious) (X)  
mu'TWAI^twai (vagabond) cf ideophone TWAI'(slow walk)

si'LAL^lani (cry baby) cf. verb -LLA (cry) (X)  
Tone Group IV-2 si'BUTSWA'butswani (roasted pumpkin) cf.

verb -'BUTSWA (ripen) (X). Tone Group V (Y)....

Tone Group V (Y)

muFIRIfiri (confusion) cf verb -FIRikana (become confused)(Y)

muTHEKetheke (giddiness) cf verb THEKeseia (waver, reel)(Y)

siKGURUKguru (noisy vehicle, tractor) cf. KGURU' (a sound imitative of the noise of a tractor).

In all the examples given above there is no instance of a duplicated stem corresponding to a nonduplicated unit of less than two syllables. In the examples in (a) the non-duplicated unit consists of a class prefix and stem. The odd examples mu'SISI (dress) cf mu'SI (dress), si'THWathwa (epileptic fit), could possibly be regarded as instances of a duplicated stem corresponding to a monosyllabic unit.

The main tonal grouping (X or Y) of the reduplicated stem depends on the tonal level of the syllable in the non-duplicated unit which corresponds to the initial syllable of the reduplicated stem. For instance, a non-duplicated unit of two syllables A-B corresponds to a stem A-b-a-b<sup>B</sup> (reduplicated). The tonal level of syllable A which is always the same in corresponding stems determines the grouping. The tonal levels of A and a or B and b are not necessarily the same. (The example in (d) above of the stem in si'lal<sup>^</sup>iani corresponding to a verb -lla --- i.e. an X-stem corresponding to a Y-verb --- is obviously a case of dropping the initial syllable: thus

si'lal<sup>^</sup>iani (Y) occurs as si'lal<sup>^</sup>iani (X).

Under (b) above there are examples where there are two distinct reduplicated stems corresponding to one non-reduplicated stem. With regard to notion, the first reduplicated word generally denotes a particularised or more specific notion as compared with the notion conveyed by the corresponding non-duplicated word. The second reduplicated word generally denotes a collective or quantitative notion, e.g.

taba (matter, subject) → taba<sup>ˆ</sup>taba (the crux of the matter, the specific point of the subject)  
 ↓  
 ditaba (matters, subjects) → ditabataba (several matters)

A similar notion to the one expressed in (i) is alternatively conveyed by repetition of a word, e.g.

u'bu<sup>ˆ</sup>lela li'kgu'wa li'kguwa? (do you mean a proper European?)  
 or by qualifying words, e.g.

u'bu<sup>ˆ</sup>lela li'kgu'wa ha'ntle? (do you mean a European proper?)  
u'bu<sup>ˆ</sup>lela li<sup>ˆ</sup>kguwa "lan<sup>ˆ</sup>niti? (do you mean a genuine European?)

Similarly the collective or quantitative notion which is conveyed by reduplication as in (ii) may be expressed alternatively by means of qualifying words, e.g.

mi'fu'tafuta (many varieties) or mi<sup>ˆ</sup>futa "e-mingata, or mi'fu'ta 'ka-mi'futa, (all meaning many varieties). The

class 6 prefix ma- in some words conveys a similar notion. e.g. li'bisi (milk) cf. ma'bisi (several quantities/kinds of milk).

It stands to reason that the second type of reduplicated words (denoting collective or quantitative notions) will correspond to words which denote plurality or quantity, while the first type of reduplicated words will correspond in most cases to words (non-duplicated) which denote a singular object or a quality. This means then that a word such as bu'thata<sup>h</sup>thata (III) (X) the specific point of difficulty) corresponds to the word bu'thata (a/the difficulty), and that ma'thata<sup>f</sup>thata (many difficulties) (IV)(X) corresponds to ma'thata (II) (difficulties). It is not enough merely to compare the stem -'thata with the stems -'thata<sup>h</sup>thata, -'tha'tathata, without taking the word as a complete unit into consideration.

2. Noun stems corresponding to noun-stems plus suffix -ana, -nyana, or -hadi:

In these examples the common root (realised as the stem of the word shown in the first column) occurs in the secondary stem in conjunction with the formative suffix -ana, -nyana or -hadi, e.g.

li'TSHA	'TSHA	li'TSHA <sup>h</sup> nyana	li'TSHANA	li'TSHA'hadi
(lake)		(little lake)	(little lake)	(large lake)

(where the element in upper case letters in each word represents the realisation of the common root 'TSHA).

In the following examples the meaning is given for the first word only. The correspondence in meaning of the other words in the series is as illustrated by the above series, i.e. the words ending in -ana, -nyana express the diminutive of

the meaning expressed by the first word, while the word ending in -hadi expresses the augmentative. Occasionally where the first word denotes animate objects, the corresponding word ending in -hadi denotes the female, e.g. ta'u (lion)-ta'u'hadi (lioness). Where this is the case, or where correspondence in meaning is not as illustrated above, indication is given.

X-stems:

Tone

Group I

	TSIE' TS	II	III	le' tsi' nyana	II e' tsi' hadi
li' tsha (lake)	TSHA	li' tshana	li' tsha <sup>^</sup> nyana	li' tsha' hadi	
n' ku (sheep)	'KU	ko' nyana (lamb)	n' ku <sup>^</sup> nyana (little sheep)	n' ku' hadi (big sheep)	
n' kgo (water pitcher)	'KGO	n' kswana	n' kgo <sup>^</sup> nyana	n' kgo' hadi	
(mu' kgwe)	'KGWE		mu' kgwenyana (IV-1) (son-in-law)	mu' kgwehadi (IV) (mother-in-law i.e. wife's mother)	
Tone			IV-1	IV-1	
Group II		III	IV-1	IV-1	
li' sapo (bone)	'SA'PO	li' sa <sup>^</sup> pšana	li' sa' ponyana	li' sa' pohadi	
li' rako (wall)	'RA'KO	li' ra <sup>^</sup> kwana	li' ra' konyana	li' ra' kohadi	
mu' suthu (Mosothe)	'SU' THU	mu' su <sup>^</sup> thwana	mu' su' thunyana	mu' su' thuhadi	
'phoo' folo (animal)	'PHOO' FO' LO	'phofo <sup>^</sup> tswana	'phoo' fo' lonyana	'pho' fo' lohadi	
Tone			IV-1	IV-1	
Group III		IV-1	IV-1	IV-1	
mu' nna (man)	'NNA	mu' nnana	mu' nnanyana	mu' nnahadi	
mu' sadi (woman)	'SADI	mu' sajana	mu' sadinyana	mu' sadihadi	
ba' nana (girls)	'NANA	ba' nananyana	ba' nananyana	ba' nanahadi	
mu' disa (herdboy)	'DISA	mu' disana	mu' disanyana	mu' disananyana	
care taker)					

Tone  
 Group IV-1      IV-1      IV-1      IV-1  
 mu'rwetsana      'RWETSANA      mu'rwetsanyana      mu'rwetsanyana      mu'rwetsanahadi  
 (maiden)

'pha'ello      'PHA'ELLO      'pha'ellonyana      'pha'ellohadi  
 (profit, interest)

Tone  
 Group IV-2      II      III      II  
 li'fielo      'FIELO      li'fie'lwana      li'fie'lo'nyana      li'fie'lo'hadi  
 (broom)

mu'simani      'SIMA'NI      mu'sima'ni'nyana      mu'sima'ni'hadi  
 (boy)

'tsietsi      'TSIE'TSI      'tsie'tsi'nyana      'tsie'tsi'hadi  
 (problem)

Y-stems:  
 (eater)      (food)

Group V      V      V      V  
 muthu      THU      muthwana      muthunyana      muthuhadi  
 (person)  
 ntlu      TLU      ntlwana      ntlunyana      ntluhadi  
 (house)

'KG      n'kgopu  
 (water - water)      (water pitcher)

II.      II.      III.  
 'TSHE'P      mu'tshepi      'tshepa      li'tshepa  
 (aspirer)      (hope)      (hope)

'RAT      'ratu      lirato, thato  
 (lover)      (love)

'BU'W      'busu      'busu, m'busu  
 (speaker, orator)      (speech) (manner of speaking)

'KEU'H      'keura  
 (society)

'BI'IS      'bitse      m'bitse  
 (attraction)      'pitse (gathering)

3. Noun stems corresponding to a verbal radical plus suffix.

In the following examples the noun stem corresponds to a verbal radical (primary or secondary) plus a suffix, -i, -o, -a, or (-u).

For this particular comparison the verbal stem (rather than the verbal radical) is given in the form and Tone Pattern in which it is realised in A-tense forms (see pp. 98-99).

X-stems:

<u>Verbs</u>	<u>Nouns</u>			
Tone				
Group	I.	I.	I.	I.
-ja (eat)	I. si'ji (eater)	I. di'jo (food)		I. Ma'ja (name of person - shown by capital letters as here)
-nwa (drink)	NW si'nwi (drinker)	I. si'no (a drink)		
-fa (give)	F m'pho (gift)			I. (lifa) (doubtful correspondence) (inheritance)
-sa (clear, cease to rain)	S mi'so (dawn)			I. ma'sa (strange things)
-kga (draw - water)	KG n'kgo (water pitcher)			
Tone				
Group	II.	II.		III.
-tshepa (hope)	'TSHE'P mu'tshepi (aspirer)			I. 'tshepo (hope) li'tshepa (hope)
-rata (love)	'RAT si'rati (lover)			I. lirato, (love) 'thato (will)
-bua (speak)	'BU'W si'bui (speaker, orator)			I. 'puo, m'muo (speech)(manner of speaking)
-kgura (be satiated)	'KGU'R			I. ^kgura (satiety)
-bitisa (call)	'BI'TS	I. li'bitso (name)		I. m'mitsa (attraction) pitso (gathering)

VERBS

NOUNS

Tone				
Group III	III	III	III	IV-2
- <u>'lahleha</u> (get lost)	'LA <sup>h</sup> HLEH	mu' <u>'la<sup>h</sup>hlehi</u> (lost person)	' <u>ta<sup>h</sup>hleho</u> (loss)	li' <u>lahleha</u> (lost animal/thing)
- <u>'tsi<sup>h</sup>etsa</u> (puzzle, etc)	'TSI <sup>h</sup> ETS		' <u>tsi<sup>h</sup>etso</u> (puzzle)	' <u>tsietsi</u> (difficulty)
- <u>'tshwa<sup>h</sup>ntsha</u> (illustrate)	'TSHWA <sup>h</sup> NTSH		' <u>tshwa<sup>h</sup>ntsho</u> (illustration)	si' <u>tshwantsho</u> (picture, likeness)
- <u>'ra<sup>h</sup>tuwa</u> (beloved)	'RA <sup>h</sup> TUW			mu' <u>ratuwa</u> (beloved one)
- <u>'e<sup>h</sup>letsa</u> (advise)	'E <sup>h</sup> LETS	mu' <u>e<sup>h</sup>letsi</u> (councillor)	' <u>ke<sup>h</sup>letso</u> (advice)	

Group IV.

- <u>'se<sup>h</sup>beletsa</u> (work for)	'SE <sup>h</sup> BELETS	base <u>beletsi</u> (servers)	' <u>tshe<sup>h</sup>beletso</u> (service)
- <u>'re<sup>h</sup>kisetsana</u> (sell to one another)	'RE <sup>h</sup> KISETSAN		' <u>the<sup>h</sup>kisetsano</u> (sale to one another)
- <u>'hlonolofatsa</u> (bless)	'HLO <sup>h</sup> HONOLOFATS		' <u>hlonolofatso</u> (blessing)

Y-stems:

Group V.

-wa (fall)	W			siwa (epidemic)
				liwa (way a setting e.g. pieces in game of chess)
				muwa (soot)
-tswa (come/go out)	TSW		mut <u>su</u> (root)	
-ya (go)	Y			mayo (goings) e.g. mayo ki-mabuyo
-lima (cultivate)	LIM	mul <u>imi</u> (cultivators)	timo (agriculture)	ti' <u>ma</u> (plot e.g. in tilling)
-hlaba (stab)	HLAB	sih <u>labi</u> (butcher)	lih <u>labo</u> (wooden needle)	lih <u>la'ba</u> (sharp pain)

/Group V .....

Group V.	V.	V.	I.
- <u>eta</u> (travel)	ET <u>mueti</u> (traveller)	<u>lieto</u> (journey)	<u>sie'ta</u> (doubtful) (show)
- <u>tawa</u> (get drunk)	TAW <u>mueta</u>		<u>lita'wa</u> (drunkard)
- <u>epa</u> (dig)	EP <u>muepi</u> (digger)	<u>kepo</u> (digging)	<u>ke'pa/ke'pi</u> (digging instrument)
- <u>ilwa</u> (shunn, taboo)	ILW		<u>mui'lwa</u> (one who is shunned)
- <u>bitsa</u> (throw, shoot)	BITS <u>sibitsi</u> (marksman)	<u>pitso</u> (beating)	<u>sibi'tsa</u> (firearm, etc)
- <u>bola</u> (rot)	BOL		<u>sibo'du</u> (rotten thing)

V.	II.	V.	V.
- <u>tsamaya</u> (travel)	TSAMA <u>mutsa'mai</u> (traveller)	<u>mutsamao</u> (gait)	<u>mutsamai</u>
- <u>hlabana</u>	HLABAN <u>muhla'bani</u>	<u>tlhabano</u>	<u>muhlabani</u>
- <u>tluhelwa</u> (let off, leave off)	TEUHELW	<u>mutlu'helwa</u> (II)	
- <u>dumela</u> (believe)	DUMEL <u>mudy'medi</u> (believer)	<u>tumelo</u> (faith)	<u>lidume'la</u> (I) (echo)

*Translation?*

In the following instances the object concord or reflexive element -i- occurs in the verb-stem, and in the corresponding noun stem e.g. -i'tatula (deny oneself)(Y) bui'tatulo (self-denial)(Y) (IV-1). -n'tsamaisa (lead one) (Y) cf muntsamaisi (one who leads <sup>me</sup>one) (Y) -'ri'swela (die for us) (X) cf muri'swedi (He who died for us) (Y) (II), -i'ka'rabela (answer for oneself) (X) cf. bui'ka'rabelo (responsibility) (X or Y) (IV-1). In many noun stems of this kind the X-Y grouping is not clear cut, particularly where the initial syllable in the stem is the reflexive element -i-. Consequently when prefixal inflectional elements such as the

possessive concord are prefixed, the class prefix of these words is not always realised as a high tone syllable, e.g.

'tsa'bui'ka'rabelo or 'tsabu'i'ka'rabelo (of responsibility)

-- where the class prefix bu- is realised as a high tone syllable in the <sup>first</sup> ~~second~~ example, a low tone syllable in the <sup>second</sup> ~~first~~ example.

4. In the following instances the noun stem has the appearance (in morphological features) of a complete word of one or other of the kinds of words described in different categories.

4.1. bumu'dimu (godliness) cf noun mu'dimu(god) C.I.

The noun mu'dimu as a free form, consists of a class prefix mu- and a stem -'dimu. It has the grammatical characteristics of form and behaviour as described for

nouns (see pp 58-75). The stem -mu'dimu, on the other hand, only has the appearance of the free form (i.e. the noun mu'dimu) but not its grammatical characteristics.

For instance the noun mu'dimu controls a class 3 agreement in syntax relations with other words (e.g. mu'dimu'uteng - there is a god). The noun stem -mu'dimu

is only part of a word. It does not belong to concord agreement series. It is as much a stem in the noun bumu'dimu as -'dimu is a stem in the noun mu'dimu.

In the following examples the free word form corresponding to each stem is indicated opposite.

4.2. bun'na (my person, myself) cf n'na (I, me) (C.II-1  
same sense buru'na (ourselves) cf ru'na (we, us) "

5. butso'na (themselves) cf tso'na (they, them) "

e.g. kine 'ki'iki'si'tse 'ka-bun'na linked  
(I had gone there) in person/personally

4.3. bu'hule (distance) cf 'hule (far away) C.III

ma'hule (far away places)

buha'ufi (nearness) cf. ha'ufi (near) C.III

maha'ufi (near places)

li^feela (vanity) cf. ^feela (merely, only, empty)  
C.III

ma^feela (vanities)

bu^feela (emptiness)

bu'kau'fela (totality, entirety) cf. 'kau'fela (altogether,  
entirely) C.III

lihu'dimu (sky, heaven) cf. hu'dimu (up, above, high)  
C.III

the  
bu'kan'tle (outside) cf. 'kan'tle (outside) C.III

ma'isau (the future) cf. 'isau (next year) C.III

bu'jwalo (nature, manner) cf. ^jwalo (like that, thus)  
C.III

In all these examples the stems as such do not possess

the peculiar tonal features of the corresponding free  
forms. For example the word 'hule (far) as a free form  
of Category III has only one tone pattern, i.e. H.L.

(cf other C.III words of the same tonal group. They  
have tone pattern 2 as well). But the noun bu'hule

(distance) has the normal tonal scatter of nouns of its  
Tone Group, even though its stem, -'hule, corresponds to a  
'hule which has an irregular tonal scatter.

These stems are bound forms: they are not words in the same sense as the corresponding free forms.

5. COMPOUND STEMS. The noun-<sup>stems</sup> in the following examples correspond to words and/or parts of words linked to one another in what <sup>appears</sup> happens to be a syntax relation. In many of these compound stems the baies on which the constituent parts are linked to one another usually has some characteristic (tonal or formal) which distinguishes it from regular syntax relations in which corresponding free forms occur. In some cases one or more of the constituents differ in the apparent form from corresponding free forms.

In the following analysis of compound stems the tonal characteristics of the individual constituents are compared with those of corresponding free forms in more or

less equivalent contexts of syntax. The interrelationship of the individual constituents in a compound stem is studied on the syntax plane.

On a tonal basis, therefore, compounds are described in terms of corresponding syntax relations of equivalent words as will be observed from the examples given below.

5.1. In the following examples the constituents correspond to nouns in genetical (possessive) syntax relation with one another (see p 73 ) e.g. m'ma'dikwata (small three-

5.2. In the following (mother of squatters) legged pot) given cf. nouns m'me (mother), dikwata (squatters)

'ra'liu'twana (lame man/boy)  
(father of little leg)

The noun *m'me* (mother) in genetical syntax relation with a succeeding noun regularly occurs with the possessive concord -'a - as a part of its final syllable, e.g. *m'ma-* mother of 'Litsie cf *ra'kgadi* "a'Litsie (where the possessive concord is not a part of the final syllable of the preceding word).  
Litsie aunt of Litsie

Since the possessive concord element occurs in closer conjunction with the succeeding noun it stands to reason that the two nouns in such a relation are more closely linked together than in ordinary relations of the same kind. Furthermore syntax relations of this kind are normally characterised by an up-step tonal transition between the last syllable of the first noun and the possessive concord element. In these examples there does not seem to be this tonal transition at all.

Examples:

- m'ma'ditsila* (a go-between) cf. *ditsila* (roads, ways)
- m'ma'ditaba* (gossiping woman) cf. *ditaba* (news, etc)
- m'mamusī* (cannon) cf. *mu'si* (smoke)
- 'ramusa* (generous person) cf. *mu'sa* (generosity)
- 'rali'bitso* (a somebody, important person) cf. *li'bitso* (name)
- 'ran'ku-'di'kai* (nickname for S.A. Boer farmer) cf. *n'ku 'di'kai?* (where are the sheep?)
- 'ra'busa'feling* (God eternal) cf. *busa'feling* (eternity) (a not-ending)

5.2. In the following examples the compound word-forms (given in the first column) are compared with regular syntax relations

consisting of a noun and adjective (C.II-6 ). In some instances it will be observed that, apart from differences in structure and behaviour, the compound has tonal characteristics which distinguish it from a regular syntax relation.

bup'flu-"te<sup>^</sup>lele (greed) cf pi'lu "e-'te<sup>^</sup>lele (long/greedy heart)

tsila-tshwe'u (happy journey) cf tsila "e-tshwe'u (white road)

n'tša-pedi (two dogs i.e.unity) cf n'tša "tse-pe'di (two dogs)

bitso-li"bi (bad name) cf libitso "le-li'bi (bad name)

ta'u -tshehla (tawney lion) cf ta'u "e-tshe'hla (tawney lion)

buma'di-mabi (misfortune) cf ma'di "a-ma'bi (bad blood)

n'tswi- "ling (single mindedness) cf n'tswi "le-ling (one voice)

ma'di-<sup>^</sup>matle (lucky) cf ma'di "a-matle (good blood)

In the examples n'tša-pedi, ta'u-tshehla, buma'di-mabi, the second constituent has a Tone Pattern low-low in final syntax position (see p 69 ). This is not the case in tsila-tshwe'u, bitso-li"bi.

The normal syntax relation corresponding to the relation of constituents of these compounds consists of a relative concord element between the two words (i.e. as inflectional element of the second word. See p 62). The absence of this element is the main point of difference between these examples and corresponding syntax relations. There are other points of difference which can be observed

in some of the examples. For instance,

<u>Compound</u>		<u>Free forms</u>	
		(noun)	(adjective) (C.II-6)
ma'di-mabi	cf.	ma'di,	ma'bi
ta'u-tshehla	cf	ta'u,	tshéhla
ma'di-"matle	cf	ma'di,	matle

The free forms, ma'bi, tshéhla, matle, in this form (i.e. the basic form of Category II type 6) only occur after the verbs -ba (be, become) and -'li (be). Even then ma'bi and tshéhla do not occur in a Tone Pattern L.L. The form matle occurs in a Tone Pattern H.M only when it is preceded by the verb -ba in a certain tense-forms.

5.3. In the following compounds the constituents correspond to the free forms indicated in the opposite column:

5.3.1. <u>Compound</u>		<u>Free forms</u>	
		(noun)	(noun)
<u>m'mule'di-"titshere</u> (evangelist-teacher)	cf.	<u>m'muledi</u> , (evangelist)	<u>'titshere</u> (teacher)
<u>tshwe'u-"thebe</u> (warrior)	cf	<u>tshwe'u</u> , (white)	<u>'thebe</u> (shield)
<u>tla'di-"muthwana</u> (lightning-man)	cf	<u>tla'di</u> , (lightning)	<u>muthwana</u> (little person)
<u>'kgaka-m"malana</u> (species of bird)	cf	<u>'kgaka</u> , (guinea fowl)	<u>m'ma'lana</u> (colour)

5.3.2.	(noun)	<u>Ideophone/Interjective</u>
<u>Muthwana-'hele'le</u> (kind of porridge)	<u>muthwana</u> , (person)	<u>'hele'le!</u> (ahoy!)
<u>kgo'mu-m"mu</u> (moo-cow)	<u>kgo'mu</u> , (cow)	<u>m'mu!</u> (moo!)
<u>mi'ri'tshana-"swii</u> (eerie place)	<u>mi'ri'tshana</u> , (hair)	<u>'swii!</u> (on end!)

greeting -- occur, but not with these words in reverse order (i.e. muthwana! 'hele'le! -45a-

ideophone. on the other hand, occurs in ordinary speech, but only on a down-step basis. e.g. miriri swii (up. want the hair)

In the compound words in 5.3.1 above the constituents correspond to nouns in the basic form. In ordinary syntax relations between nouns in the basic form an up-step tonal transition does not occur (See p 71 et seq.). The following are examples of syntax relations in which two nouns (underlined) occur in juxtaposition: m'mule'di 'tītšhe're 'u'ka! (where is the evangelist teacher?) cf parallel examples, murena 'Pu'le.. (chief Pule), nta'te 'Pu'le.. (father Pule or Mr Pule), m'mule'di 'Pu'le.. (evangelist Pule), nta'te 'tītšhe-re.. (father or Mr teacher).

'ine 'i'li m'mule'di 'tītšhe're ˘ena. (this teacher was an evangelist) uri tla'di muthwana 'ya-'pa'la a'ka i'laula 'jwang? (How do you think a mere little person can control lightning?)

We'na tla'di, muthwana 'ya-'otlang "li'sile (Thou, O lightning, little man who strikes from a clear sky) 'kga'ka, m'ma'lana "wayo'na ha'si-hu'ra˘teha! (a guinea fowl, how beautiful is its colour!)

ki'lo'ra nwa, tshwe'u, 'the'be 'lili'rymona (I dream of war, warrior, shield and spear).

In all these examples (except the third last) the two

~~EXAMPLES~~ underlined nouns are down-step tonal relation with one another. In the third last example, tla'di and muthwana are in zero syntax relation. In the last two examples zero syntax relation is a possible alternative to down-step relation.

The free word-forms in the first two examples in 5.3.2

(i.e. noun and interjective) do not occur in normal sentences: examples as 'hele'le! muthwana! (hail! little man) -- said in greeting -- occur, but not with these words in reverse order

(i.e. muthwana! 'hele'le!). Syntax relation between noun and

ideophone, on the other hand, occurs in ordinary speech, but only on a down-step basis. e.g. miriri! 'swii! (up! went the hair)

Except in syntax contexts of concord relation described on pp 73-75 an up-step tonal transition does not occur in any syntax relations of a noun with a succeeding word. The up-step tonal transition between the constituents of the above compounds is therefore a distinctive characteristic. The example tlá'di-'muthwana has the further peculiarity of a Tone Pattern high-low-low on the second constituent.

5.4. The stems of the nouns analysed below all consist of two constituent parts. The first constituent corresponds to a verbal unit and the second corresponds to a nominal word.

The two constituents are juxtaposed to one another on a basis which seems to correspond to verb-nominal syntax relations. Assuming for the present that the stem is an ordinary syntax relation, the complete noun could then be represented thus: class prefix + verb-nominal relation

e.g. ma - 're'ma - tlou  
hu - 're'ma - tlou (see pp //8 - 120 )

It is fairly obvious that if the stem in these examples is comparable to a syntax relation of a verb with a noun (or other nominal word), the first constituent corresponds to a verb in the A-form (see p 98 for Tense Forms of the verb). The nomino-verb, with tense-suffix -a is the nearest A-Form to use as basis on which to compare the tonal characteristics of these examples.

In the following analysis the compound noun-stem (given in the first column) is compared with the corresponding

nomino-verb (i.e. A-Form) in order to establish the tonal characteristics of the compound.

5.4.1. In all these examples the second constituent of the compound corresponds to a basic noun.

<u>X-stems</u>	cf	<u>nomino-verb (A-form)</u>	
(i) <u>TONE GROUP IV-1</u>		<u>X-verbs</u>	<u>Y-nouns</u>
ma're'ma-tlou (elephant hunters)	[ - - - ]	hu're'ma (to fell)	tlou elephant
mu'la'la-tlholo (species of grass)		hu'la'la to sleep	tlholo hare
li'phu'ra-kgwahla boy initiate		hu'phu'ra to chew	kgwahla hard mealies

There is no tonal difference between compounds and the nomino-verbs. The Tone Pattern of the verbs is high-high- i.e. the one which occurs in down-step tonal transition. The nouns have no class-prefix, and are of Tone Group V.

<u>TONE GROUP IV-2</u>			
(ii) mu'kgu'ka-kgwali (kind of shrub)	[ - - - ]	hu'kgu'ka to puzzle	kgwa'li pheasant
mu'la'la'-tau (species of grass)		hu'la'la to sleep	ta'u lion
li'si'ta-poho (kind of plant)		hu'si'ta overcome	po'ho bull
mu'ru'a-kgomu cattle breeder		hu'ru'a to breed	kgomu cow

The Tone Pattern of the verb in all examples is high-high - i.e. the Pattern which regularly occurs in the down-step syntax relations (see p/23 ). The nouns have no class-prefix. Their tonal grouping is V(Y) in (i) I(Y) in (ii). (Note the distinctive Tone Pattern of the compound noun in (ii))

<u>X-stems</u>				<u>TONE GROUP</u>
(iii) <u>TONE GROUP II</u>	<u>X-verbs</u>	<u>X-nouns</u>		
si <sup>ˆ</sup> qeta- <sup>ˆ</sup> beke (III) (kind of drink)	hu <sup>ˆ</sup> qe'ta to complete	<sup>ˆ</sup> beke a week		III
li <sup>ˆ</sup> tshula-"thebe (warrior)	hu <sup>ˆ</sup> tshu'la to carry	'thebe a shield		II
ma <sup>ˆ</sup> hana-"tshiya (fabulous snake)	hu <sup>ˆ</sup> ha'na to eat	'tshiya -dassie		II
(iv) si <sup>ˆ</sup> rwala-n <sup>ˆ</sup> kgwana (praying mantis)	hu <sup>ˆ</sup> rwa'la to carry	n <sup>ˆ</sup> kgwana a pitcher		II
si <sup>ˆ</sup> fala-bu <sup>ˆ</sup> hoho (name of a star)	hu <sup>ˆ</sup> fa'la to scrape off	bu <sup>ˆ</sup> hoho crust		II
mu <sup>ˆ</sup> aha-mu <sup>ˆ</sup> riti (shell builder)	hu <sup>ˆ</sup> a'ha to build	mu <sup>ˆ</sup> riti shade		II
si <sup>ˆ</sup> ja-m <sup>ˆ</sup> mutla (hare eater)	hu <sup>ˆ</sup> ja to eat	m <sup>ˆ</sup> mutla hare		II
(v) si <sup>ˆ</sup> tima-"mullo (IV-1) (fire extinguisher)	hu <sup>ˆ</sup> ti'ma to extinguish	<u>Y-nouns</u> mullo fire		V
si <sup>ˆ</sup> tshisa-"ntlu (III) (species of locust)	hu <sup>ˆ</sup> tshi'sa to burn	ntlu house		V
si <sup>ˆ</sup> ja-"mu <sup>ˆ</sup> nna (III) (man-eater)	hu <sup>ˆ</sup> ja to eat	mu <sup>ˆ</sup> nna a man		III(X)

In the above examples the two constituents of the compound give rise to an up-step tonal transition, but in the corresponding nomino-verbs the transition from the verb to the noun is a down-step transition.

In all the examples, (i) - (v), it will be observed that the kind of transition realised between the two constituents of the compound stem is determined largely by the second constituent, thus: When the second constituent

corresponds to a C.I word of Tone Group X, without the class-prefix (e.g. examples in (iii) or with the class-prefix (e.g. examples in (iv)), an up-step tonal transition is realised. The class-prefix in such cases has low tone, e.g. si<sup>ˆ</sup>fala-bu<sup>ˆ</sup>hoho [ . - ] [ . - ] (where the class-prefix bu- has low tone).

When the second constituent corresponds to a noun of Tone Group Y either a down-step or an up-step tonal transition is realised, thus: a down-step tonal transition when there is no class-prefix (e.g. examples in (i)); an up-step tonal transition when there is the class-prefix. In the latter case the class prefix has high tone, as the examples in (v) show.

In normal syntax relation of a verb to a succeeding C.I word in the basic form (cf. pp 74 and 133) an up-step tonal transition is never realised. The tonal relation of the constituents in these compound stems illustrated above is therefore a distinguishing feature.

5.4.2. In the following examples the second constituents correspond to different kinds of nominal words in basic and inflected forms:

<u>X-stems</u>		<u>X-verb</u>	<u>Y-verbs</u>	<u>Noun</u>
<u>muetsa-di<sup>ˆ</sup>bi</u> I(Y) (sinner)	cf.	<u>huetsa</u>	<u>di<sup>ˆ</sup>bi</u>	I(X)
		to commit	sins	
<u>mutea-pha<sup>ˆ</sup>la</u> I(Y) (trumpeter)		<u>hutea</u>	<u>pha<sup>ˆ</sup>la</u>	I(Y)
		to blow	trumpet	
<u>si<sup>ˆ</sup>epa-pitso</u> III(Y) (convener of the assembly)		<u>huepa</u>	<u>pitso</u>	III(X)
		to summon	the assembly	

- muhlongwa-<sup>^</sup>faatshi (type of hut) III(X)      huhloma<sup>^</sup>faatshi (to start) to plant down III(X)
- makgona-<sup>^</sup>tsohle (panacea) II(X)      hukgona<sup>^</sup>tsohle (to cope with) all III(X)
- siya-'li<sup>^</sup>mutsi III(Y)      huya to go V(Y) inflected along the village
- mufita-'ka-tsila IV-1 (Y)      hufita to pass "by the way"
- si<sup>^</sup>jela-"thuko II(X)      hu<sup>^</sup>jela to eat "thuko" aside
- si<sup>^</sup>tsuha-"lipilu-"ya'mau'bani II(X) cf. hu<sup>^</sup>tsuha "lip'flu" (descriptive of a sweet-natured person) (to rise with the heart of yesterday)

In these examples the first constituent corresponds to a verb of the Y Tone Group. The kind of tonal transition in these compounds is therefore not discernable. In the last two examples the up-step transitions are not peculiar.

In this example sina'kangwedi (glow-worm) IV-2(Y), the second constituent corresponds to a noun (inflected form) 'ka-ngwe<sup>+</sup>di (with/by moonlight) I (Y). The compound sina'kangwedi has distinctive tone.

5.4.3. In the following examples both the constituents of the compound stem correspond to verbs:

<u>X-stems</u> <u>tone group II</u>	<u>X-verb</u>	<u>verb in E-FORM</u>
<u>ma'sa-"a'ko'ko'metsi</u> (strange things)	<u>hu'sa</u> to dawn	<u>"a'ko'ko'metsi</u> while he is sitting up
<u>mu'tsha-"u'tshile</u> (continuous action/movement)	<u>hu'tsha</u> (to keep on burning)	<u>"u'tshile</u> (having burnt out) drunkard)

'bo-kia<sup>^</sup>tsiba (Mr Know-all) I know      /ma'lala-"ala'utswi.....

malala-"ala'utswi (troops called up) hu<sup>h</sup>lala (to stay the night) "ala'utswi (hate) (who carry) (having been ordered)

mu'ja-"u<sup>h</sup>duma (III) (pig or any noisy eater) hu'ja (to eat) "u<sup>h</sup>duma (C-s-FORM) (sounding/thundering)

Y-stem

sitla-'sipe'pilwe (II) (illegitimate child) hutla (to come) '(si)pe'pilwe (carried on back)

In all the above examples Tone Pattern does not distinguish the compound forms from corresponding nomino-verbals.

(5.4.4. In the following instances the noun and stems correspond to verbs in various tense-forms, occurring alone or in syntax relation with other words. The stem in each case is compared with the corresponding verb (and adjunct) in the tense-form indicated.

(i) di'the'uhe'lang II(X) (food) cf 'tse-'the'uhe'lang (see p/21) (what-goes down)

di'ngotswing IV-2 (X) (literature, written matter) cf 'tse-'ngotswing " (that which is written)

di'pa'tilweng IV-1 (X) (hidden things, secrets) cf 'tse-'pa'tilweng " (that which is hidden)

disa'tsiwing IV(Y) cf 'tse-sa'tsiwing " (things which are not known)

(ii) si<sup>h</sup>dutsi III(X) (sitting fashion) cf 'ya-'dutsing " (he who is seated)

kguma'mela II(Y) (last stand fight) kguma'mela III(Y) Y (A-form) (kneel for) kguma'mela (I-Form)

In a few instances a complete sentence behaves as a unit, equivalent to a noun, e.g.

'bo-tshe'la-"li'tlale (description of a drunkard) pour(so.that)it may be full

'bo-kiat<sup>h</sup>siba (Mr Know-all) (a quack-doctor) I know

'do-li'kguwa - n'thate (people who curry favour to  
whiteman love me Europeans)

There is no apparent difference in tonal features and behaviour between these examples as nominal stems and as free forms.

To sum up the lexical role of tone on the word-formation, let the symbols X, x represent a syllable of high tone, Y, y a syllable of low tone, m a syllable of mid tone, (the upper case letters denote a syllable in initial position in the common root or in the noun-stem). The noun class-prefix may be represented by the symbol p.

The tonal correspondence of nouns to the common roots may be expressed as follows:-

Nouns with Primary Stems:

Common Root	Noun	TONE PATTERN	Example	Tone Group
X	pX	[ - - ]	li'tsha (lake)	I (X)
Xx	pX <sup>x</sup> m y	[ - - ] [ - - ] [ - - ]	mu'Suthu (a Mosotho)	II (X)
Xy	pXm	[ - - ]	mu'sadi (woman)	III (X)
Y	pY	[ - - ]	muthu (person)	V (Y)
Yy	pYy	[ - - - ]	mulala (neck)	V (Y)
Yx	pYx	[ - - ]	lisa'ka (kraal)	I (Y)

Where the common root occurs as a monosyllabic noun-stem it always occurs in conjunction with the class-prefix.

The example in Tone Group II shows that a high syllable after another high syllable in the common root occurs as a low, high or mid tone syllable in the noun-stem. The particular <sup>level</sup> on which it occurs is determined by laws of syntax. (see pp 71-75)

A syllable of low tone preceded by one of high tone in the common root is realised in the noun-stem as a syllable of mid tone.

Secondary Stems may be considered under three headings:

- (a) those which are related to other nominal stems,
  - (b) those which are related to verbal words, and (c)
- compound stems.

(a) Practically all primary noun-stems can be represented by the formulae given above. It stands to reason therefore that secondary stems which relate to primary stems can be represented as extensions of the primary stems, i.e. they can be described as one of the above common roots occurring in conjunction with various lexical suffixes, or they may be equivalent to the common root reduplicated.

The commonest noun-stems of this kind are those described on p34 (~~Section 4-36~~) where suffixes -(a)na, -nyana, -hadi occur in conjunction with various common roots.

The following table illustrates this interrelationship of noun-stems:

Common Root	Noun	Tone Pattern	Example	Tone Group
X	pX	[ - - ]	li'tsha	I (X)
	pX-na	[ - - ] [ - - ] [ - - ]	li'tshana	II (X)
	pX-nyana	[ - - - ]	li'tsha <sup>^</sup> nyana	III(X)
Xx	pX+ $\begin{cases} y \\ x \\ m \end{cases}$	[ - - ] [ - - ] [ - - ]	mu'suthu	II (X)
	pXx-na	[ - - - ]	mu'suthwana	III (X)
	pXx-nyana	[ - - - ]	mu'su'thunyana	IV-1(X)
Xy <sup>(6)</sup>	pXm	[ - - - ]	mu <sup>^</sup> sadi	III (X)
	pXy-na	[ - - - ]	mu'sadana	IV-1 (X)
	pXy-nyana	[ - - - ]	mu'sadinyana	IV-1 (X)
Y	pY	[ - - ]	muthu	V (Y)
	pY-na	[ - - - ]	muthwana	V (Y)
	pY-nyana	[ - - - ]	muthunyana	V (Y)
Yy	pYy	[ - - - ]	mulala	V (Y)
	pYy-na	[ - - - ]	mulalana	V (Y)
	pYy-nyana	[ - - - ]	mulalanyana	V (Y)
Yx	pYx	[ - - - ]	lisa'ka	I (Y)
	pYx-na	[ - - - ] [ - - ] [ - - ]	lisa'kana	II (Y)
	pYx-nyana	[ - - - ]	lisa'ka <sup>^</sup> nyana	III (Y)

~~The secondary stems in these examples all consist of lexical suffix -(a)na or nyana. With the suffix hadi the Common Root X or ~~XX~~ Yx gives rise to a noun stem of Tone Group II. e.g. li'tsha'hadi, lisa'ka'hadi. In all other cases it suffix hadi only occurs in stems of Tone Groups IV or Y. (See pp 29 - 34 for Reduplication).~~

The secondary stems illustrated above all consist of the lexical suffix -(a)ana or -nyana. The suffix -hadi gives rise to a stem of Tone Group II when in conjunction with a common root X, or Yx, e.g. li'tsha'hadi, lisa'ka'hadi. In all other cases it gives rise to Tone Group IV or V. (See pp 34-36 section 2 also pp 29 for reduplication).

(b) The second type of secondary stems are lexically related to verbal words, e.g.

<u>verbs</u>	<u>common root</u>		<u>nouns</u>	
lima (Y) (plough)	LIM	mulimi V(Y)	timo V(Y) (agriculture)	ti'ma I(Y) (plot, pattern)
'tshepa (X) (hope)	'TSHE'P		'tshepo II(X) (hope)	li'tshepa III(X) (hope)

All nouns and verbs which are related through the same root fall into the same Tone Group X or Y but may differ in their over-all Tone Pattern (i.e. in their grouping I, II, etc). In any case all nouns of this kind fall in the Tone Groups I-V indicated above.

(c) Compound noun-stems correspond to syntax relations of different word forms. The over-all Tone Pattern is, therefore, more comparable to Tone Patterns of syntax relations rather than to those of individual words. Since compound stems are comparatively longer than the kinds of noun-stems discussed above, their varieties of over-all Tone Patterns is considerably greater than those given above. But in so far as Tone Grouping is based on the initial syllable of the stem for X-Y groups and on the last two syllables for the I, II- etc grouping, even the very long compound stems fall into one or other of the Tone Groups given above.

The principles of tonal inter relationship of noun-stems as illustrated under Reduplication (pp 29 - 34) and under Noun-stems corresponding to noun-stem plus suffix -ana, -nyana -hadi, (pp 34-36) apply also to other kinds of nominal words: e.g. In Category II: the stems of words of type 6

kgomu "e-ntshu cf "e-tshwana cf "e-ntshunyana  
(black ox/bull) (black cow) (blackish ox or cow)

cf "e-ntshuhadi (large black...). (these words denote colour).

The other stems of this type occur with suffix -nyana or

-hadi, but not with suffix -ana. e.g. -'hulu

-'hulu (big) cf. -'hu'lunyana, or -'hulwa^nyane cf. -'hu'luhadi  
(big-ish etc) (rather big) (very big)

(where -'hulu does not denote colour as in the case of -tshu)

Similarly, the stems of type 7 behave like -'hulu (i.e.

occur with suffix -nyana or -hadi, but not with -ana) e.g.

-'thata cf 'thatanyana cf 'thatahadi  
(hard) (rather hard) (very hard)

In Category III only a few words occur with suffix

-ana, -nyana, rarely with suffix -hadi. e.g.

'hule cf. 'hujana 'hulenyana  
(far) (rather far)(rather far)

ha'hulu cf ha'hulwa^nyani ha'hu'luhadi -- not with -ana.  
(much) (rather much) (very much)

Reduplication: The same types of words in Categories II and III which occur with suffixes -ana, -nyana or -hadi also occur in reduplicated form. e.g.

'ba-bangata (many) cf 'ba-bangatangata (very many) (C.II-6)

'e-'thata (tough) cf 'e-'thata^thata (very tough) (C.II-7)

'hule (far) cf. 'hule^hule (far far away) (C.III )

## 2. GRAMMATICAL INFLECTION (NOUNS)

'kapi'li (quickly) cf 'kapi'lipi'li (very quickly) (C.III )

Where words are related on either of these principles their tonal patterns correspond in the same manner described for nouns.

The starting point of this plane (the inflectional plane) is the basic form of the noun. This consists of two elements: the class-prefix and the stem.

The main features of the class-prefix may be summed up thus:

(a) It is normally monosyllabic which has low tone. The prefix 'ho' of class 2a is exceptional in that it has high tone (see 1.3f).

(b) When certain inflectional elements precede the class-prefix it is realised as a syllable of high tone. This only happens (i) when the initial syllable of the stem (immediately after the class-prefix) has low tone, and (ii) if the class-prefix is a separate syllable in itself.

The condition in (i) above then excludes the class prefixes of all nouns with X-stems since such stems have a syllable of high tone initially. Only the class prefixes of nouns with Y-stems may be realised as syllables of high tone e.g. hama (people) [ . . ] cf. 'li' hama (and people) [ ' . . ]

But here too the condition mentioned in (ii) above excludes the class prefixes of nouns such as hama (owner) } [ . . ]  
hama (owners) }

of hama (and owners) [ ' . . ] since these class prefixes do not occur as separate syllables apart from the stems.

## 2. GRAMMATICAL INFLECTION (NOUNS)

In this section the object is to establish the tonal characteristics of the word as a grammatical unit and to determine its tonal behaviour in relation to various inflectional elements in conjunction with which it occurs.

The starting point on this plane (the inflectional plane) is the basis form of the noun. This consists of two elements: the class-prefix and the stem.

The main features of the class-prefix may be summed up thus:

(a) It is normally<sup>a</sup> monosyllable which has low tone. The prefix 'bo-' of class 2a is an exception in that it has high tone (see p. 59).

(b) When certain inflectional elements precede the class-prefix it is realised as a syllable of high tone. This only happens (i) when the initial syllable of the stem (immediately after the class-prefix) has low tone, and (ii) if the class-prefix is a separate syllable in itself.

The condition in (i) above then excludes the class prefixes of all nouns with X-stems since such stems have a syllable of high tone initially. Only the class prefixes of nouns with Y-stems may be realised as syllables of high tone e.g. bathu (people) [ - - ] cf. 'li^ bathu (and people) [ - - ]

But here too the condition mentioned in (ii) above excludes the class prefixes of nouns such as mung (owner) } [ - - ]  
beng (owners) }  
 cf. 'libeng (and owners) [ - - ] since these class prefixes do not occur as separate syllables apart from the stems.

Without ignoring other non-tonal criteria of the class prefix, it is necessary on this plane (the inflectional plane) to exclude from the reference "class-prefix" elements which do not possess these tonal characteristics. For instance the prefixal element 'bo- of class 2a has the characteristics of the inflectional elements (see p. 61) but not those of the class-prefix as described above. It is, therefore, discussed under the heading of inflectional elements. On the same basis elements which possess the tonal characteristics of class prefixes are included in the reference "class-prefix" even if they are not generally recognised as class-prefixes. For instance the initial syllable in nta'te (father) [ - - ] cf. li'ntate (and father) [ - - ], luti (mountain range) [ - - ] cf. li^luti (and the mountain range) [ - - ], have the tonal characteristic of class-prefixes although they are not generally recognised as such. Any references made to tonal characteristics of the class-prefix on this plane apply to such elements as well.

In the previous section it was shown how widely noun-stems vary in their lexical formation. But such differences in formation do not determine the behaviour of the noun on this plane or on the plane of syntax. The only factors which have to be considered here are the significant tones. These are: The tone of the initial syllable of the noun-stem, since it determines the X-Y Tone group of the noun and thereby the behaviour of the class-prefix as described above. The tone

levels of the end syllables which determine the Tone Group below. In the following account the Tone Patterns of the I,II,etc. This grouping determines the behaviour of nouns basic noun are compared with those of the inflected noun in conjunction with suffixal inflectional elements as will (i.e. the basic noun in conjunction with an inflectional element). From this comparison the tonal behaviour of the syllables in the noun-stems is significant in the study of noun as an inflected form is established. Furthermore this inflection. For instance the behaviour of a disyllabic tonal behaviour of the noun provides a basis on which to classify the inflectional elements, noun is not the same as that of a trisyllabic noun of the same Tone Group. Except in so far as lexical formation may

2.1 Prefixal elements may be classified as follows:

2.1.1 plane. For instance the nouns mu'se'betsi (work), mu'ja'pila (mythical snake), li'tsha'hadi (large lake), all of Tone Group II(X), are different from one another in their lexical

structure, but are identical in their grammatical behaviour. Basic form: The large majority of nouns in their basic form consist of the two elements: class prefix and stem. A small number have no class prefix. Some nouns of certain classes under certain circumstances occur without the class prefix (see p 22 ).

For this description, however, the basic noun is simply the minimal word-form which has the grammatical characteristics of category I (see pp 58 - 75 ). Forms without a class prefix or whose class prefix is not a syllable apart from the stem (as described above) are not different from nouns with X-stems in their behaviour on the inflectional plane.

Inflected form: Each basic form as such may occur in conjunction with one or more of the inflectional elements described below ...

below. In the following account the Tone Patterns of the basic noun are compared with those of the inflected noun (i.e. the basic noun in conjunction with an inflectional element). From this comparison the tonal behaviour of the noun as an inflected form is established. Furthermore this tonal behaviour of the noun provides a basis on which to classify the inflectional elements.

2.1. Prefixal elements may be classified as follows:

2.1.1

	<u>Basic form</u>		<u>Inflected form</u>	
	<u>Tone</u>			
	<u>Group</u>			
V(Y)	<u>bathu</u> [ - - ]	'li <sup>^</sup>	<u>bathu</u> [ - - - ]	(and the people)
"	<u>murena</u> [ - - - ]	'li'	<u>murena</u> [ - - - ]	(and the chief)
"	<u>taba</u> [ - - ]	'li	<u>taba</u> [ - - - ]	(and the affair)
I(Y)	<u>lisa</u> 'ka [ - - ]	'li'	<u>lisaka</u> [ - - - ]	(and the kraal)
"	<u>ta</u> 'u [ - - ]	'li	<u>ta</u> u [ - - - ]	(and the lion)
II(X)	<u>mu</u> 'suthu [ - - ]	'li	<u>mu</u> 'suthu [ - - - ]	(and the Mosotho)
"	' <u>pula</u> [ - - ]	'li'	' <u>pula</u> [ - - - ]	(and the rain)
I(X)	<u>li</u> 'tsha [ - - ]	'li	<u>li</u> 'tsha [ - - - ]	(and the lake)

The other inflectional elements in the same group as

- 'li-are: 'hu-(to/from/at) e.g. 'hu'murena (to the chief),  
 'tsa- (the possessive concord) e.g. 'tsa'murena (of the chief),  
 'bo- (cf class 2a p 59) e.g. 'bo'murena (the chief and his associates).

In conjunction with any of these inflectional elements the class prefix of nouns of Y-stems is realised as a high tone syllable and nouns of Tone Group I behave as nouns of Tone Group IV-2<sup>15)</sup> though not invariably (~~see p~~).

2.1.2

<u>Tone Group</u>	<u>Basic form</u>	<u>Inflected form</u>
V (Y)	<u>matla</u> [- -]	'di <sup>^</sup> <u>matla</u> [- - -] (they are strong)
"	<u>mulimo</u> ---	'di <sup>^</sup> <u>mulimo</u> [- - -] (they are good)
I (Y)	<u>lira'ta</u> [- - -]	'di <sup>^</sup> <u>lira'ta</u> [- - -] (they are noisy)
II(X)	<u>mu'nati</u> [- - -]	'di <sup>^</sup> <u>mu'nati</u> [- - -] (they are nice)

The other inflectional element of this group is: ha- e.g. 'hamu'nati (nicely) cf mu'nati (nice); 'ha'buhlaswa (carelessly) cf buhlaswa (careless). The element 'di- is the third person subject concord (see column 3 (i) . in Table I).

It will be observed that the tonal behaviour of nouns in conjunction with these elements is exactly as described in 2.1.1 above, except that in this case nouns of Tone Group I do not behave as nouns of Tone Group IV-2.

2.1.3

V(Y)	<u>matla</u> [- -]	'tse- <sup>^</sup> <u>matla</u> [- [- -]]	(the strong ones)
"	<u>mulimo</u> [- - -]	'tse- <u>mulimo</u> [- [- - -]]	(the good ones)
	<u>me'tsi</u> [- -]	'tse- <u>me'tsi</u> [- [- -]]	(the wet ones)
II	' <u>kgotso</u> [- -]	'ba-' <u>kgotso</u> [- [- -]]	(peaceful ones)

2.1.3. Any of these may also occur in conjunction with the subject  
 The element 'tse-, 'ba- is the relative concord (see  
 column 7 in Table I). The other inflectional element of  
 Table I, e.g. 'ba- (you are a person)  
 this group is the 3rd person subject concord preceded by the  
 The same tone pattern occurs with the other inflectional  
 negative formative ha- e.g. hadi-metsi (they are not wet).

As these examples show only a dissyllabic noun of  
 Tone Group V(Y) behaves differently in conjunction with these  
 elements. It will also be observed that a down-step tonal  
 transition occurs between the inflectional element and the  
 initial high syllable of the noun. (It is about those with the  
 the chief)

## 2.1.4

- V(Y) matla [..] 'ka-matla [ˀ][..] (with force)
- I (Y) lira'ta [..ˀ] 'ka-lira'ta [ˀ][..ˀ] (with noise)
- II(X) 'k<sup>2</sup>g<sup>2</sup>otso [ˀ-] 'ka-'k<sup>2</sup>g<sup>2</sup>otso [ˀ][ˀ-] (in/with peace)
- III(X) <sup>ˀ</sup>hlooho [ˀ-] 'ka-<sup>ˀ</sup>hlooho [ˀ][ˀ-] (with the head)

Other inflectional elements of this group are:

- 'ki- (it is) e.g. 'ki-pula (it is rain) cf 'pula (rain)
- ha'si- (it is not) e.g. ha'si-pula (it is not rain)
- ha'ri (we are not) - where -ri- denotes any 1st or 2nd person  
 subject concord as realised after the negative particle ha- ,  
 e.g. ha'u-Pule (you are not Pule).

There is no difference in the Tone Patterns of the nouns  
 occurring with or without these inflectional elements.

A down-step tonal transition occurs between the  
 inflectional element and an initial syllable of high tone in  
 the noun.

2.1.5. Any noun may also occur in conjunction with the subject concords of the 1st and 2nd person as given in column 8(1) of Table I. e.g. muthu [ \_ \_ ] cf. umuthu [ \_ \_ \_ ] (you are a person)

The same word may occur with more than one inflectional element, thus:

- Basic form: murena (chief)
- 1st inflection: 'hu'murena (to the chief)
- 2nd inflection: 'tse-'hu'murena (those(things) with the chief)
- 3rd inflection: 'ka'tse-'hu'murena (about those with the chief)
- 4th inflection: 'ki'ka'tse-'hu'murena (it is about those with the chief)
- (Some of these elements close the word to any further prefixal inflection).

2.2. Suffixal inflection: Nouns also occur in conjunction with various suffixal elements of inflection as follows:-

2.2.1. Inflection by suffix -ng: The following examples show the Tone Pattern of Context 2\* of the basic word and its corresponding Tone Pattern when it occurs in conjunction with suffix -ng. (In all cases words with this suffix express a locative notion, thus: lisa'ka (kraal) lisa'keng (to/from/at/in the kraal) :

Tone Group	Basic form	Tone Pattern 2	Inflected form
I.	<u>li'tsha</u> (lake)	[ _ - ]	<u>li'tsheng</u>
II.	<u>li'bala</u> (open space)	[ _ - - ]	<u>li'ba'long</u>
III.	<u>ba'nana</u> (girls)	[ _ - - ]	<u>ba'naneng</u>
	<u>hlooho</u> (head)	[ / - ]	<u>hloohong</u>
IV-1	<u>ba'rwetsana</u> (maidens)	[ _ - - ]	<u>ba'rwetsaneng</u>

\*) See page 69. e.g. 'ki-'pu'le-bo (Of course it is Pule).

(In the examples of Pule, 'this' or 'his' u'Pule --- "You are Pule, are you", cf. u'Pule & 'naa or 'naa u'Pule? "Are you Pule?", the enclitics 'hile and 'naa have a long vowel and behave like separate units rather than like enclitics or proclitics).

IV-2	ba'simani (boys)	[ - - - ]	ba'sima'ning	[ - - - ]
V.	bathu (people)	[ - - - ]	bathung	[ - - - ]
	murena (chief)	[ - - - ]	mureneng	[ - - - ]
	sidiba (fountain)	[ - - - ]	sedib'eng	[ - - - ]

This comparison shows that suffix -ng is essentially a syllable of low tone, In conjunction with this suffix C.I. words have the following features:

Words capable of more than one Tone Pattern suffix -ng to Tone Pattern 2. In other words it is suffixed to the word as it stands. In Tone Group III the syllable before this suffix has low tone instead of mid tone. In certain words of Tone Group V the syllable before this suffix has high tone.

C.I. words which have a tonal scatter of more than one Tone Pattern occur in only one essential Tone Pattern in conjunction with this suffix.

### Enclitics.

In certain situations words occur in conjunction with enclitics, as follows:

Enclitics -we'e, -na may be suffixed to nominal words in situations where such words denote the addressee, e.g.

'Pu'le-we'e, 'Pu'le-na. (where Pule is the name of the person being addressed.) Pule has Pattern 2.

The enclitics -hile and -bo also denote address but are not suffixed to the word denoting the addressee in these examples:

'ki-'Pu'le-'hile, 'ki-'pu'le-bo (Of course it is Pule).

In ....

(In the examples u'Pu'le 'hle or 'hle u'Pule --- "You are Pule, are'nt you". cf. u'Pu'le β 'naa or 'naa u'Pule ? "Are you Pule?". the enclitics 'hle and 'naa have a long vowel and behave like separate units rather than like inflectional elements. There are two kinds of inflectional elements: (1) those which do not give rise to a tone-step.

In all the examples given above the enclitics are suffixed to the word 'Pu'le in Tone Pattern 2. i.e. the Tone Pattern of such a word in conjunction with one of these elements differs fundamentally from that of the basic word, down-step tonal transition.

(cf. pp. 49-50.) (2) The second kind of inflectional element gives rise to a tone-step. This means that such elements do not occur as integral parts of the word; rather, they occur as distinct units related with the word on a syntax basis. In the following examples ~~the~~ an up-step tonal transition occurs at the junction between the word and the enclitic: e.g. mu'sima'ni-"tuwe. (boy!) ba'sima'ni-"ting (boys!). 'Pule-"hle, 'a-'kunthuse or 'Pule, 'a-'kun'thuse-"hle

(Oh Pule, do help me.)... significantly different from its In this case, -'hle denotes the addressee but may be affixed to another word. (Cf. previous page).

The enclitics -'hle and -bo (and 'naa occasionally) behave as if they are part of the sentence as a whole rather than of an individual word in the sentence. For various reasons the inflectional element cannot be regarded as a free word form.

The occurrence of a tone-step is regarded as an indication of a ~~join~~ junction between two distinct words (as may be seen in the sections on syntax relation). This fact is made use of on the plane of inflection in grouping inflectional elements. There are two kinds of inflectional elements: (i) Those which do not give rise to a tone-step. Such elements occur as integral parts of the word, and the Tone Pattern of such a word in conjunction with one of these elements differs fundamentally from that of the basic word. (cf. pp 61-65). (ii) The second kind of inflectional element gives rise to a tone-step. This means that such elements do not occur as integral parts of the word; rather, they occur as distinct units related with the word on a syntax basis. For instance the Tone Patterns of a noun in various syntax relations are not significantly different from its Tone Patterns when it occurs in conjunction with inflectional elements of this kind. In the orthography used here the device of linking such elements to the main word by means of a hyphen is intended to show that the relation is on a syntax basis as between two free word forms, but that for various reasons the inflectional element cannot be regarded as a free word form.

If the same word occurs in different Tone Patterns in various situations, and such differences are not determined by lexical or inflectional factors, it seems reasonable to conclude that such differences in Tone Pattern are determined

3. SYNTAX RELATION (NOUNS): Syntax relations of words in a sentence is indicated in various ways, such as: the order of words in a sentence, the concord agreement between words, the kind of inflectional elements occurring in words, the occurrence of Length, the Tone Patterns in which words occur and the kind of tonal transition from one word to another. Any of these factors can be the determining factor of a syntax relation. The relative importance of each factor varies from one situation to another. In many situations more than one of these factors are involved.

In this section the tonal characteristics of nouns as they occur in various syntactical contexts are analysed.

Tone Groups: In discussing tone on the lexical plane (pp 21-57) it was observed that certain nouns occurred in more than one Tone Pattern --- i.e. they had a scatter of two or three Tone Patterns. Nouns with three Tone Patterns, for instance, appear in Tone Group II, and those with two Tone Patterns appear in a sub-section of Tone Group IV.

On the inflectional plane (pp 58-67) it was further observed that in certain Tone Groups the nature of the inflectional element determined the Tone Pattern of the noun in conjunction with which it occurred.

If the same word occurs in different Tone Patterns in various situations, and such differences are not determined by lexical or inflectional factors, it seems reasonable to conclude that such differences in Tone Pattern are determined

by syntactic factors. (Speech realisation as a determining factor is ruled out here for the simple reason that each Tone Pattern in a tonal scatter varies from one speech context to another).

Assuming then that syntax relation determines the incidence of the various Tone Patterns in the tonal scatter of words, the next to step is to classify syntactical contexts. Nouns of Tone Group II are used as a basis since they have the largest number of Tone Patterns.

There are three kinds of syntactical contexts altogether, each requiring a distinctive Tone Pattern in nouns of Tone Group II. Thus:

Context 1: 'ba'a'hi'le lisa'kana [ - - - ]  
 With Y-stem (they have built a kraal)

Context 2: lisa'ka'na 'liwile [ - - - ]  
 (the kraal has fallen)

Context 3: lisa'kana "leu 'liwile [ L L L - ]  
 pe'tsana (that kraal has fallen)

It will be observed in these examples that the Tone Patterns of lisa'kana differ in respect of the tonal level of the final syllable only. This syllable has low tone in Context 1, high tone in Context 2, mid tone in Context 3. Similarly, another noun, li'rako (wall) in place of lisa'kana occurs in a Tone Pattern L.H.L in Context 1, L.H.H in Context 2, L.H.M in Context 3. i.e. the final syllable of li'rako has a tonal level low, high, and mid in Contexts 1, 2, and 3 respectively. On this basis then, any noun whose final syllable has low, high or mid tone according

inflectional tone it will be seen that in order to establish to the Context in which the noun occurs, is grouped in the tonal behaviour of nouns the following facts must be known: (a) The major tonal grouping X or Y to which the word belongs. This grouping indicates the behaviour of themselves in over-all Tone Pattern, but all have a high tone on the penultimate syllable, and the tone on the final syllable is low, high, or mid, depending on the particular context in which the word occurs: e.g.

<u>With X-stems</u>	Tone Pattern:	Context 1.	Context 2.	Context 3.
si'fate (tree)		L.H.L	L.H.H	L.H.M
bi'rwala-n'kgwana (mantis)		L.H.M-L.H.L	L.H.M-L.H.H	L.H.M-L.H.M
'pudi (goat)		H.L	H.M	H.M
'phoo'folo (animal)		H.L.H.L	HL.H.H	HL.H.M

#### With Y-stems

mutlho'rymo (grasshopper)	L.L.H.L	L.L.H.H	L.L.H.M
likulwa'nyani (boy after initiation)	L.L.L.H.L	L.L.L.H.H	L.L.L.H.M
pe'tsana (foal)	L.H.L	L.H.H	L.H.M
tsjeba'djimu (kind of locust)	L.L.L.H.L	L.L.L.H.H	L.L.L.H.M

On the basis of the end Pattern<sup>14)</sup> (e.g. all these nouns end H.L, H.H, H.M in Contexts 1, 2, 3 respectively) words are grouped in the Tone Groups I, II, III, etc. does not

Nouns of Tone Group IV-2 have an end Pattern H.L.L in Context 1, H.L.H in Contexts 2 and 3 (Cf. Tone Group IV-1 where there is only ~~th~~ one Tone Pattern for all Contexts).

All the Tone Groups which have only one Tone Pattern repeat the same Tone Pattern in each Context.

From this and from the sections on lexical and

inflectional tone it will be seen that in order to establish the tonal behaviour of nouns the following facts must be known: ~~The~~ (a) The major tonal grouping X or Y to which the word belongs. This grouping indicates the behaviour of the noun ~~when it occurs~~ on the inflectional plane (i.e. when it occurs in conjunction with various inflectional elements. (b) The sub-grouping I, II, etc., described above and ~~in~~ in previous sections. This grouping indicates the tonal behaviour of words in their syntax relations with other words in the sentence.

Kinds of Syntax Relations: A second fact that may be noted about the three kinds of syntax Contexts illustrated above is that <sup>at</sup> the junction between the noun (lisa'kana) and the following word a tonal transition occurs. It is a down-step tonal transition in Context 2, an up-step tonal transition in Context 3. There is no tonal transition in Context 1. (Cf. pp 13 - 14 for Tonal Transition). This feature~~x~~ is made use of in distinguishing kinds of contexts when the noun under consideration has only one Tone Pattern for all contexts. e.g. the noun lisa'ka (kraal) which has only one Tone Pattern L.L.H does not show kind of Context by its Tone Pattern; but if the next word consists of a high tone syllable initially kind of Context can be determined from the tonal transition which occurs between the last syllable of lisa'ka and the first syllable of the next word.

From the tonal point of view syntax relations in which nouns occur may be classified as follows:

Syntax Relation with succeeding words:

Zero Relation: In positions of zero syntax relation nouns occur in Tone Pattern 1 (i.e. the Tone Pattern of Context 1 as illustrated above). e.g.

(a) 'kgotso. 'pula. (II) (Peace! Rain!) -- said in greeting.

'ki→'pula? 'ki-'pula (Is it rain? It is rain)

(The noun in these examples has an end Pattern H.L. Cf Tone Group II).

(b) mu'šimani, nta'te 'ua'u<sup>ˆ</sup>bitsa (Boy, father calls you)

kia<sup>ˆ</sup>tsiba mu'šimani huri ha'udu<sup>ˆ</sup>meli (I know, boy, that you do not agree)

nta'te 'ua'u<sup>ˆ</sup>batla mu'šimani (father wants you boy)

(In all these examples the noun mu'šimani has a Tone Pattern L.H.LL cf Tone Patterns 2 and 3 L.H.L.H in Tone Group IV-2)

The examples in (a) are one word acts of speech. In (b) the noun mu'šimani is, as it were, parenthetically thrown into the sentence. In these examples there is no tone-step between the noun and the next word e.g. between mu'šimani and the next word.

Up-step relation: (i.e. a syntax relation in which an ~~down~~ up-step tonal transition occurs). Nouns occur in Tone Pattern 2 and 3 and the succeeding word occurs in a higher key. Thus:

- 2x(i) ba<sup>ˆ</sup>suthu "bau (those Basotho) ('bau is a word of Category II type 3)  
 "educated Basotho children..."  
 (ii) ba'na "baka (my children) ('baka C.II. type 4)  
 (iii) mu<sup>ˆ</sup>futa u"fi? (what kind?) (u'fi? C.II. type 5)  
 (iv) ba'ra "ba-bane (four sons) ('ba-bane C.II type 6)  
 (v) pi'lu "e-'nolo (tender heart) ('e-'nolo C.II type 7)  
 (vi) matsa'tsɿ "a-su'pɿ'leng (seven days) ("a-su'pɿ'leng see p 121)

In all these examples the two words giving rise to the up-step tonal transition are in direct concord agreement with one another. That is to say, the noun (the first word in each case) controls the concord agreement of the succeeding word. For instance compare the following examples:

- ba'na "baba<sup>ˆ</sup>suthu "ba-'ru'te'hɿleng (children of educated Basotho)  
 (children of-Basotho who-are-educated)  
 ba'na "baba'su'thu 'ba-'ru'te'hɿleng (educated Basotho children)

In the first example "ba-'ru'te'hɿleng is in direct concord agreement with 'baba<sup>ˆ</sup>suthu, not with ba'na; hence the up-step tonal transition from 'baba<sup>ˆ</sup>suthu to 'ba-'ru'te'hɿleng. In this the phrase is translated as, "children of educated Basotho."

In the second example the concord agreement of 'ba-'ru'te'hɿleng is with ba'na, not with 'baba'su'thu; the apparent agreement with 'baba'su'thu is merely accident. Hence the down-step tonal transition from 'baba'su'thu to 'ba-'ru'te'hɿleng.

The phrase in the second example would be

mu'ru'tɿ 'Pule (minister Pule) translated.....



Inflected forms of Category I consisting of a possessive concord (see p.61 section 2.1.1.) or a relative concord (see p. 62 section 2.1.2) as their initial element relate with a preceding word of Category I on an up-step basis under conditions of certain distinctive features as will be observed in the direct concord agreement as described on pp 72 - 74. e.g. following analysis of each type. All these word types

dikgo'mu "tse-li'sume  
cattle of the chief 1st word is noun/ nomino-verbal (C.I)

hu'hulwa "ha'murena  
defeat of the chief 2nd word is inflected noun with as possessive concord initially

dikgo'mu "tse-li'sume  
cattle which are ten 2nd word is inflected noun with

hu'hulwa "ho-bu'hlukuny  
defeat which is tragic relative concord as initial element.

(2) None of these words have more than two patterns in their In all other cases syntax relation of an inflected word of Category I with a preceding nominal word is on a down-step basis. e.g. ba'sima'ni 'liba'nana (boys and-girls)

(3) All syntax relations of these words with a succeeding word are on a down-step basis. e.g. tso'na 'tse'murena (the very ones of the chief) (tsona --C.II-1)

When the preceding word is a verb (Category IV) an inflected word consisting of the possessive concord or the invariable element 'hu- (see p 61) as its initial element All syntax relations of this form with a preceding word are relates with the preceding verb on a down-step basis. e.g.

dikgo'mu ki're'ki'le t "tsali'bisi ki're'ki'le - D-Form verb.  
as for cows, I have bought milking ones 'tse- possessive concord  
li'bisi (noun)

ki'di're'ki'le 'hu'murena  
I have bought them from the chief (English type)

Otherwise, syntax relations of inflected word-forms with a preceding verb are usually up-step relations. e.g.

'dire'kilwe "ki-murena (they have been bought by the chief)

ki'reka "tse-li'sume (I am buying ten). kifeka "ka-'ponto (I am buying for a pound)  
(see p 123. last paragraph, for exceptions)

C A T E G O R Y   I I .

Words of category II are further sub-divided into eight types or sub-categories. Each of these types has certain distinctive features as will be observed in the following analysis of each type. All these word types have the following characteristics in common:

(1) All words in category II consist of a concord element as one of their components. This means then that each word has a full series of concords and can, therefore, take part in a concord relation in any class.

(2) None of these words have more than two patterns in their tonal scatter. They never <sup>occur in</sup> take Pattern 3 which is regularly associated with up-step syntax relation.

(3) All syntax relations of these words with a succeeding word are on a down-step basis.

Type I. (cf. Absolute Pronoun):

Basic form: bo'na [- ] (they, them) (class 2)

All syntax relations of this form with a preceding word are on a down-step basis, e.g. ba'suthu bo'na ha'ba'utlwisisi (the Basotho themselves do not agree).

kirekile tso'na 'tsasi'kguwa (I have bought the proper English type)

Inflected form: 'kibo'na [- -] (it is they) a)

'libona (and them/they)

'hubo'na (to/from/at/them)

'kabo'na [ˈ . .] (by/about them)

'tsabo'na (of them) (tsa- is possessive concord)

'bobo'na (those of their group) (bo- class prefix 2a)

In the above inflected forms, <sup>the tone of</sup> bona is ~~realized as~~ [ˈ . .] in final syntax position.

ribo'na [ˈ . .] (we are they) the basic form is normally

ha'ribo'na (we are not them) verbs, and down-step basis

ha'sibo'na (it is not them) the preceding nominal word

is of category I and the relation is one of direct concord

*Quantitative*

Type 2. (cf. Demonstrative Pronouns): an up-step relation

Basic form: <sup>ˆ</sup>bohle [ˈ - -] (all) (class 2)

In this form syntax relation with a preceding verb is normally on an up-step basis. With a preceding nominal word it is normally down-step.

Inflected form: <sup>ˆ</sup>li bohle [ˈ - -] (and/with all)

'hu'bau (to/from/among those)

'ka'bau (by/about) <sup>ˆ</sup>hu bohle (to/from all)

'tsa'bau (of those)

ri'bau (we are) <sup>ˆ</sup>ka bohle (by/about all)

'bo'yeu (that one) <sup>ˆ</sup>ki bohle (it is all/ by all)

Words of the <sup>ˆ</sup>tsa bohle (of all) (tsa- poss.conc.)

are characteristic ha'si-<sup>ˆ</sup>bohle (it is not all)

Type 3. (cf. Demonstratives):

Basic form: tone patterns, while not differing essentially

Tone Group	ordinary tone patterns	<del>Normal</del> <i>Idiosyncratic</i> patterns	<del>Extra-normal</del> <i>Idiosyncratic</i> patterns
------------	------------------------	---	---

I. *Idiosyncratic* ba'a (these) usually <sup>ˆ</sup> [ˈ - -] in a key which is

II. <sup>ˆ</sup> above 'bau (those) ordinary speech length which is normally

III. <sup>ˆ</sup> above 'bale (those yonder) usually on the ultimate

syll III...

III.	^ bana (these)	[ - - ]	
"	^ banu (those)	[ - - ]	( - \ )
"	^ bani (those yonder)	[ - - ]	( - \ ) ( \ - )
"	^ 'banini (those yonder)	[ - - ]	( - - \ )
	^ 'banunu		

Syntax relations of these words in the basic form is normally on an up-step basis with preceding verbs, and down-step basis with preceding nominal words. When the preceding nominal word is of category I and the relation is one of direct concord agreement as described on pages <sup>72 - 74</sup> 86 and 87 an up-step relation is formed. (see p 133 for relation with a verbs).

Inflected form:

'li'bau (and those)	ha'si-'bau (it is not those)
'ki'bau (it is those)	ha'ri-'bau (we are not those)
'hu'bau (to/from/among those)	
'ka'bau (by/about those)	
'tsa'bau (of those)	
ri'bau (we are those)	
'bo'yeu (that one and his associates)	

Words of this type have some of the features which are characteristic of ideophones and interjectives (described in Part III).

The ideophonic tone patterns, while not differing essentially from the ordinary tone patterns, are accompanied by ideophonic length and are usually pitched in a key which is well above the key of ordinary speech. Length which is normally on the penultimate syllable, is usually on the ultimate syllable...

syllable and occurs in non-final position as well. These ideophonic Tone Patterns occur more frequently than the other Tone Patterns. Quite often even the non-ideophonic Tone patterns are accompanied by a certain amount of ultimate length. ~~These words consist of of one Tone Pattern only.~~

The following illustrations show the variety of speech patterns a word of this type can have.

bathu 'bale (those people yonder)

( ' )

( ' )

bathu ^ bani (those people yonder)

( - - ) ( ' - ) ( \ - )

bathu ^ banini (those people yonder)

( ' - ) ( \ - - )

It is difficult to know where to draw the dividing line between non-ideophonic and ideophonic Tone Patterns

to a few-step transition.

The stems 'nas'ey (at my home/in my country), 'nae'nu (at your home/in your country), 'naha'bo (at his home, in his country) correspond to locative words (see p. 1).

(Note that the stems -ar'ba, -be'nu, -ba'bo in the above forms have a different vocal pattern from the locative words 'ndga (at my house), 'naga (at your house), 'naha (at his house).

Type 4. (cf. Possessive Construction):

Basic form:

'hu'baka (to/from/among mine)

Tone 'baka (of mine)

Group:

- I. 'bahe'su [ " . " ] (of my kin/country)  
 'bahe'nu [ " . " ] (of your kin/country)  
 'baha'bo [ " . " ] (of his kin/country)  
 'ba'hae'su [ " " . " ] (of my kin/country)  
 'ba'hae'nu [ " " . " ] (of your kin/country)  
 'ba'haha'bo [ " " . " ] (of his kin/country)

- II. 'baka [ " " ] [ " " ] (my, mine)  
 'basu [ " " ] [ " " ] (of my family)  
 'benu [ " " ] [ " " ] (of your family)  
 'babo [ " " ] [ " " ] (of his family)  
 'ha'hai [ " " . ] [ " " " ] (his, her, hers)  
 'ba'hau [ " " - ] [ " " - ] (your, yours)

- III. 'bame [ " " ] (my, mine)

The initial element in the above words is the possessive concord. Syntax relation of these forms with a word of category I give rise to an up-step transition when the two words are direct concord agreement (cf. pp 72 and 74). All other syntax relations with a preceding word give rise to a down-step transition.

The stems 'hae'su (at my home/in my country), 'hae'nu (at your home/in your country), 'haha'bo (at his home, in his country) correspond to locative words (see p )

(Note that the stems -he'su, -he'nu, -ha'bo in the above forms have a different tonal pattern from the locative words 'hesu (at my home), 'henu (at your home), 'habo (at his home).

Inflected forms.....

Inflected forms: (active):

'li'baka (and mine)  
'hu'baka (to/from/among mine)  
'tsa'baka (of mine)

ri'ba'hau (we are yours)

'ki-'baka (they are mine)  
'ha'si-'baka (they are not mine)  
'ha'ri-'ba'hau (we are not yours)

Type 5. (cf. Enumerative Qualificatives):

Basic form: (a) ba'fi?(which?) (b) mu'ng? (what sex?  
what nationality?)  
ba'fing? (which?)

ba'sili (other, different)

Syntax relation with a preceding C.I word in direct concord agreement are on an up-step basis (cf. pp 72 and 74). With all other preceding words syntax relation is on a down-step basis.

Inflected form: 'liba'fi? (and/with which?)  
'huba'fi? (to/from/among which?)  
'kaba'fi? (about which?)  
'tsabafi? (of which?)  
'kiba'fi? (which are they?)  
ribasili (we are different ones)  
ha'ribasili (we are not different ones)  
ha'sibasili (it is not a different (lot))

Type 6....

Type 6. (cf. Adjective): *gata* (many) (class 2)  
 Basic form: *'tse-gata* (many) (class 8/10)  
*'tse-tharu* (three) (class 8/10)  
 Tone  
 Group (b) *'ba-bangata* (they are many) (class 2)

I.(X) *ba'bi* (bad) *'gata* (they are many) (class 8/10)  
 (Y) *baswe'u* (white) *'gata* (they are three) (class 8/10)

II. (X) *ba'hulu* (big, old) *'gata* (they are not many)

(y) *base'hлана* (light coloured) *'gata* (they are not three)

IIIa (X) *ba'hланu* (five) *'gata* (they are five) (class 8/10)

(Y) *base'hлa'nyana* (lightish) *'gata* (they are lightish) (class 8/10)

IV-1 (X) *ba'tshi'tsanyana* (roundish) *'gata* (they are roundish) (class 8/10)

V (Y) *bane* (four) *'gata* (they are four) (class 8/10)  
*bangata* (many, much) *'gata* (they are many) (class 8/10)

In the basic form, as in these examples, words of this type consist of a concord element (cf. adjective concord, given in column of Table I), followed by a stem. The concord element has low tone. In conjunction with a Y-stem it is realised as a high tone syllable when preceded by certain kinds of subject concords of high tone, as illustrated below.

*'li'ba-bangata* (and many) *ha'si-'ba-bangata* (it is not many)  
*'ka'ba-bangata* (and many) *ha'si-'ba-bangata* (it is not many)

These basic forms only occur in syntax relation with the verbs *-ba* (become, be), *-li* (be, being) in various tense forms, e.g. *'ba'tla 'ba 'bangata* (they will be many) the prefixal adjective *'baye ba'bi 'bangata* (they are usually many). Their morphological description is given in Table I. *'bane 'ba'li bangata* (they were many) the description of the *'bane 'ba'si bangata* (they were not many).

(After the verb *ba* in some of its tense forms the adjective concord in Y-words is sometimes realised as a high tone syllable)

(a)  
 First inflection: /'ba-bangata (many) (class 2)  
 Basic form: 'tse-nngata (many) (class 8/10)  
 Tone Group: 'tse-'tharu (three) (class 8/10)

(b) 'ba'bangata (they are many) (class 2)  
 I.(Y) 'di'nngata (they are many) (class 8/10)  
 'di'tharu (they are three) (class 8/10)  
 II.(X) ha'ba-bangata (they are not many)  
 ha'di-'tharu (they are not three)

In (a) inflection is by prefixing the relative concord, (see column 7 of Table I). When inflected in this way, these words relate with a preceding verb on an up-step basis. (see p 134 for syntax relations of the verb). With a preceding word of category I these words relate on an up-step basis under the condition of direct concord agreement (cf. pp 72 and 74). In the inflected forms under (b) the initial element is the subject concord. In this form these words always relate on a down-step basis with any preceding word. Part III).

Any further inflections are made on the form given in (a), thus: 'ba-bangata (many) (as in (a) above)  
 'li'ba-bangata (and many) ha'si-'ba-bangata (it is no many)  
 'ka'ba-bangata (about many)  
 etc exactly as in C.II type 3.

The stem of these words (i.e. the basic form without the prefixal adjective concord) occur as stems in category I words. Their morphological features are, therefore, covered by the description of the stem of C.I words, given on pp 24-57.

Type 7.....

Type 7. (cf. Relative constructions):

Basic form:

Tone Group

- I.(Y)        su'tu        (unlucky)  
                se'di        (alert)  
                ba'tsi      (wide, broad)
- II. (X)       'thata      (tough, difficult)  
                'kgopo     (crooked, wicked)  
                'nolo       (gentle, soft)
- V. (Y)       ntshotsho (sharp, pointed)

The description given for words of type 6 above applies equally to words of this type, with just this difference that in words of this type (type 7) there is no concord element corresponding to the adjective concord of words of type 6. Therefore any remarks relating to this concord element do not apply to words of type 7.

Type 8. (cf. Relative Construction): (See pp 12) in Part III).

- IV. (X)       'issau      (next year)
- V. (Y)       pilli      (in front)
- teng      (there)

All the above forms correspond to stems of words of category I, as in: Iiba'ri (middle), li'to (earth), li'krutla (court), Iihu'dimu (sky) (heaven), Iifaatshi (the earth), ma'issau (future).

In all syntax relations of basic forms of this type with preceding and succeeding words, a down-step transition is realised.

Category III..

2. The following C A T E G O R Y III. element -ha- followed by a stem of the type found in category II type 6, e.g.

This category consists of a variety of words differing to some extent in form and tonal behaviour, but which all have the feature of not coming under the regular class or In-conjunction with a polysyllabic stem the element ha- has concord agreement system. They are further sub-divided into a tone level opposite to that of the initial syllable of the stem. This element rarely occurs in conjunction with monosyllabic stems. The examples hang (once) [ ] (cf. stem -'ng) and haga (four times) [ ] (cf. stem -'ga) indicate that the element ha- in conjunction with a monosyllable of a high or low tone gives rise to a pattern high-mid.

BASIC FORMS:

1. Tone Group

- I. (Y) ha'ri (in the middle) [ - ]  
 mtle (outside)  
 hwi'tla (in autumn)
- II. (X) 'ifo (on the hearth) [ - ] [ - ]  
 'kgutla (at/in court) }  
 (Y) hla'bula (in summer) [ - ] [ - ]  
 hu'dimu (up, above) }
- III. (X) ^ faatshi (on the ground) [ - ]  
 ^ tlaasi (down, below)  
 ^ hae (at home)
- IV. (X) 'isau (next year) [ - ]
- V. (Y) pili (in front) [ - ]  
 teng (there)

All the above forms correspond to stems of words of category I, as in: liha'ri (middle), li'ifo(hearth), li'kgutla(court), lihu'dimu (sky) (heaven), lifaatshi (the earth), ma'isau (future). (cf. C.II. type 4. p 30 ).

(ii) In all syntax relations of basic forms of this type with preceding and succeeding words, a down-step transition is realised. (elsewhere) (cf. C.II, type 5. p 31 )



## PART III

(iii)

ho'o (now)	mo'o (here)	kwa'a (that way)	tʃee (like this)
'hola (then)	'mola (there)	'kwanu (this way)	ʃena (thus)
'hoo (then)	'moo (there)	'koo (that way)	ʃwang? (how?)
^hona (now)	^mona (here)	^kwana (that way)	^jwalo (thus)
'hwani (then)	'mani (there)		^jwale (now)
'hwanini (then)	'manini (there)		^jwana (like this)
			^jwanana (like this)

(cf. C.II. type 3 p 77-78)

All words of this type (i-iii) have the same tonal behaviour as that of equivalent types in category II, in their syntax relations with other words. Words of category III are classless, and therefore do not take part in syntax relations on a basis of concord agreement. In this respect they are different from their equivalents in category II.

4. This group consists of miscellaneous words which, while differing among themselves in morphological features, have the same tonal behaviour in context.

Group II. 'thuko (aside)	Gr. III. ^feela (only, empty)
'kai? (where)	'phatlalatsa (openly)
'ning? (when?)	
nmoho (together)	'kgalekgale (long ago)
'hule (far away)	'kajenu (today)
Group II. 'pili (before)	Group I. 'kapi'li (quickly)
'kgale (long ago)	
'hape (again)	
haufi (near)	
'kau'fela (altogether, entirely)	

Some of the words in group II have only the first pattern in their tonal scatter, e.g. 'hule, 'pili, 'kgale, which have only the pattern [ - - ]

Words of this type normally relate on an up-step basis with a preceding verb; on a down-step basis with a preceding

normal word.

## PART III.

CATEGORY IV (VERBS).

In studying nominal words it was necessary to consider tone on the lexical, inflectional, and syntactical planes. In the case of verbs yet another plane has to be considered. This pertains to the tonal and formal variation of the verb according to circumstances of grammatical Time, Mood, Aspect, Implication, Negation and Affirmation. Whereas on this plane --- the plane of Conjugation, as it may be called --- the verb Tense-Forms are examined. Within each

Lexical features of the verb.

A convenient form of the verb from which to examine its lexical features is the stem as it occurs in the A-Form (see pp 98 ). (The form of the verb generally known as the Infinitive mood belongs to this Tense-Form. Cf. <sup>A-1(a)</sup> )

The stem of A-Forms consists of a radical and a suffix  
-a. e.g. -'rek- a (buy), -bal- a (read, count) --- where the final vowel -a is the tense suffix.

All verb-stems with high tone on the initial syllable of the radical are grouped as X-verbs. Those with low tone on this syllable are grouped as Y-verbs. It has to be borne in mind that verbs vary tonally to a much greater extent than other words. For instance, a verb-stem which has a low tone on the initial syllable in one Tense-Form may occur with a high tone on this syllable in another Tense-

form, or even in the same Tense-Form when certain prefixal elements ~~are~~ <sup>occur</sup> added. In some contexts a ~~xx~~ verb with a Y-stem may ~~have~~ occur in the same Tone Pattern as an ~~ax~~ verb with an X-stem (cf. monosyllabic stems). The Tone Grouping, however, is made on the basis of the Tone Pattern of verbs in the context ~~xxxxxx~~ selected here as the norm, and the tonal distinction between X-stems and Y-stems described above applies in this particular context.

The tonal grouping of the verb then is only a two-way grouping; into Tone Group X and Tone Group Y. Within each of these two g Tone Groups verbs may be further divided according to the number of syllables in the stem. As will be seen from the table below, this sub-division need not be carried beyond four syllabled-stems in Tone Group X, or three syllabled-stems in Tone Group Y, since Tone Patterns of larger stems do not show any further significant difference. The next step is to determine the Tonal Scatter for each of these sub-divisions in each Tense-Form.

The following table shows the major Tone Groups (X, Y) of the verb, and the sub-divisions of each (indicated in Roman figures):

Verbs with X-stems

I. -'ja (eat)

II. -'jisa (feed)

III. -'ji^setsa (graze, etc)

IV. <sup>re</sup>'kiset<sup>sa</sup> (sell to/for)  
-'<sup>se</sup>'besebetsa (work a  
a little)

Verbs with Y-stems

V. (-tla (come) -tlisa (bring) -tlisetsa (bring for) -tsamaisa (lead, drive) -tsamatsamaya (walk a little))

In this particular Tense-Form (A-Form) verbs have a Tonal Scatter which is almost identical with that of Category I words of corresponding Tone Groups. For instance, the verb -'jisa has a Tonal Scatter H.L, H.H, H.M . (cf. noun 'pula (II(X) Monosyllabic stems would compare with Nominal words of corresponding Tone Groups only if they (verbs) occur with a prefixal concord element of low tone.

The verb-radical and its extensions: (The verb-radical is the verb-stem without the tense-suffix). As in the case of nominal stems, the verb-radical may be divided into Primary radicals and Secondary radicals on the same basis as described for noun-stems (See p24-).

Primary radicals: Primary radicals of the verb are dissyllabic in the majority of instances. e.g.

Tone Group X: -'rek- (buy), -'tib- (know), -'bon- (see)  
-'em- (stand), -'ot- (be thin), -'om- (be dry)

Tone Group Y: -fit- (pass), -bits- (beat), -kwal- (close)  
-et- (travel), -ok- (nurse), -qiq- (shake)

A small number of radicals are monosyllabic. e.g.

Tone Group X: -'f- (give), -'j- (eat), -'hlw- (climb)

Tone Group Y: -y- (go), -tl- (come), -n- (rain), -w- (fall)

Secondary radicals: These correspond to other words or parts

Thus a nominal word or stem and the verb-stem corresponding of words on more or less the same principles described for to it on the basis illustrated here could belong to different nouns secondary noun-stems. The following examples illustrate some of these principles.

Verbal-radicals corresponding to nominal words or stems:

In the following instances the verbal radical is equivalent to a nominal word or stem plus a lexical suffix -f- or -fal-. e.g.

<u>Nominal</u>	<u>Common root</u>	<u>Verb</u>	<u>Nominal</u>	<u>Common root</u>	<u>Verb</u>
Tone X Group		X.	Y.		Y.
- <u>bi</u> (bad)	'BI	- <u>bif-</u> (get angry)	lififi (darkness)	FI	- <u>fifal-</u> (get dark)
mu' <u>nati</u> (nice)	'NA'TI	- <u>na<sup>^</sup>tif-</u> (be nice)	ntshu (black)	NTSHU	- <u>ntshufal-</u> (get black)
bu' <u>hlali</u> (wisdom)	'HLA'LI	- <u>hla<sup>^</sup>lif-</u> (grow wise)	bufofu (blindness)	FOFU	- <u>fofufal-</u> (go blind)
n <sup>^</sup> <u>niti</u> (truth)	'NI'TI	- <u>ni'tifal-</u> (become true)	- <u>se'hla</u> (yellow)	SE'HLA	- <u>seh<sup>^</sup>lafal-</u> (become yellow)
- <u>le<sup>^</sup>lele</u> (long, tall)	'LE'LE	- <u>le'lefal-</u> (lengthen)	<u>matla</u> (strength)	MATLA	- <u>matlafal-</u> (strengthen)

It will be observed from these examples that the syllable in the nominal word which corresponds to the initial syllable of the verb-radical determines the Tone Group of the verb. Where such syllable has low tone in the nominal word, the corresponding verb falls under Tone Group Y. e.g. radical -se'hla (yellow) cf verb -seh<sup>^</sup>lafal- (become yellow) (Y)

Where such syllable has high tone in the nominal, the corresponding verb is invariably one of Tone Group X. e.g. bu'hlali (wisdom)(X) cf. verb -hla<sup>^</sup>lif- (grow wise) (X).  
~~-tsha (new) (X) cf. verb -ntshafal (become new) (Y)~~

Thus a nominal word or stem and the verb-stem corresponding to it on the basis illustrated here could belong to different Tone Groups (X or Y).

In the following examples, although there seems to be a lexical relation between the nominal and verbal words, it is not regular or systematic. e.g.

<u>Noun</u>	<u>Common Root</u>	<u>Verb</u>
li'fu (X) (death)	'FU	-'šw- (die)(X)
mu'futhu (X) (warmth)	'FU'THU	-'fu'thumal- (X) (become warm)
liša'nu (Y) (lie)	SA'NU	-šanuts- (Y) (belie)
muhu'nu (Y) (envy)	HU'NU	-hunuhel- (Y) (envy)
libone (Y) (light)	BONE	-bonis- (Y) (light)

As these examples show, the suffixal formatives *w* in conjunction with which the common root occurs in the verb do not constitute a regular series (Cf. lexical suffix *-f-* or *-fal-* above). The basis of correspondence which these words illustrate here is very much like the one on which Ideophones and verbs correspond (See p 94-95)

Verbal radicals corresponding to other verbal radicals:

In the following instances the secondary verbal radical corresponds to a verb-radical plus one or more suffixes of the kind illustrated below.

<u>Suffix</u>	<u>Secondary verb</u>
-w-, -uw-, -'ratw- (be loved)	cf. 'rat- (love)

In a reduplicated radical which corresponds to the radical

of a dissyllabic stem there is a vowel -a- at the end of the

<u>Suffix</u>	<u>Secondary radical</u>
-w-, -uw-	' <u>ra</u> <sup>^</sup> <u>tuw</u> - (be loved) (X) cf. -' <u>rat</u> - (love)
	- <u>balw</u> - (be read/counted(Y))cf - <u>bal</u> - (read, count)
-eh-	' <u>ra</u> <sup>^</sup> <u>teh</u> - (be lovable) (X)
	- <u>batleh</u> - (be required) (Y) cf. - <u>batl</u> - (require)
-ahal-	' <u>bo</u> ' <u>nahal</u> - (be visible) (X) cf. -' <u>bon</u> - (see)
-el-	' <u>re</u> <sup>^</sup> <u>kel</u> - (buy for) (X) cf. -' <u>rek</u> - (buy)
	- <u>limel</u> - (plough for) (Y) cf. - <u>lim</u> - (plough)
-i <sub>1</sub> i <sub>2</sub> s-	' <u>u</u> ' <u>tlw</u> i <sub>1</sub> i <sub>2</sub> s- (understand) (X) cf. -' <u>utlw</u> - (hear)
-	- <u>batli</u> i <sub>1</sub> i <sub>2</sub> s- (investigate) (Y) cf. - <u>batl</u> - (search)
-is-	' <u>em</u> <sup>^</sup> <u>is</u> - (cause to stop) (X) cf. -' <u>em</u> - (stop)
	- <u>mathi</u> s- (chase,) (Y) cf. - <u>math</u> - (run)
-an-	' <u>ra</u> <sup>^</sup> <u>tan</u> - (love one another) (X) cf. -' <u>rat</u> - (love)

There are other suffixes of this series, but these examples fully illustrate the correspondence.

Reduplication: In the following examples the secondary verb-radical corresponds to a verb-radical which is, as it were, extended by doubling its ~~ver~~ first two syllables. thus: -tsamais- (drive,) (Y) cf. -tsamatsamais- (Y) (drive on a little further)

<u>X-radicals</u>	<u>Y-radicals</u>
' <u>se</u> <sup>^</sup> <u>bets</u> - (work)	' <u>se</u> ' <u>besebets</u> - (work a little)      - <u>ekets</u> - (add)      - <u>ekeekets</u> - (add a little)
' <u>bu</u> - <u>a</u> (speak)	' <u>bu</u> ' <u>abu</u> - (talk much)      - <u>bal</u> - <u>a</u> (read)      - <u>balabal</u> - (read a little)
' <u>bu</u> <sup>^</sup> <u>is</u> - (speak to)	' <u>bu</u> ' <u>ibuis</u> - (chat a little)      - <u>rah</u> - (kick)      - <u>raharah</u> - (kick feebly)

In a reduplicated radical which corresponds to the radical

of a dissyllabic stem there is a vowel -a- at the end of the second syllable. e.g. 'ke'naken- cf. 'ken-  
 (go in and out) (enter)

Radicals of monosyllabic verb-stems do not generally correspond to reduplicated radicals. There, are, however, a few examples such as: 'ba'ntse-~~ba~~ 'ba'ntse 'ba'i'yaiya in) (they are getting on in a way). cf. monosyllabic stem -ya (go), which may have an extra syllable in certain Tense-Forms. Also, katswatswa 'kiri~~kiri~~ kia'ba<sup>h</sup>liha (I ~~tired~~ tried in vain to run away...) cf. verb -tswa (go/come~~o~~ out). chwese -hwešetsa (whisper) ghi'le -'ghi'letsa (limp)

Verbal radicals corresponding to Ideophones : The following are examples of verbal radicals and Ideophones which are regularly associated with each other in meaning and usage; that is, the verb may be used along with the corresponding Ideophone or the latter may be used instead of the verb. .e.g n'tho 'yaphatsima 'yari phatsi! (something flared up, went flash!) or n'tho 'yari phatsi! (something went flash!) (In the examples below only the verb is translated into English since Ideophones often defy attempts at translation.) The general meaning of the Ideophone, however, corresponds to that of the verb more or less as hush! corresponds to the verb hush up or ɛ̀ɛ̀ silence). (Note that Ideophones have tonal characteristics, as well as other features, which do not occur in other nominal and verbal words. It is necessary to study the detailed description of these features (pp136-) in order to interpret the tone marks).

<u>Ideophone</u>	<u>Verb</u>	<u>Ideophone</u>	<u>Verb</u>
<u>tsipa</u>	- <u>tsipama</u> (be erect)	<u>ko'du</u>	-' <u>ko'dumela</u> (slope down)
<u>tshithi</u>	- <u>tshithima</u> (jump)	<u>tlu'le</u>	-' <u>tlu'lela</u> (jump in)
<u>tseke</u>	- <u>tsekema</u> (glitter)	<u>di'ke</u>	-' <u>di'kela</u> (disappear)
<u>phapha</u>	- <u>phaphama</u> (wake up)	<u>po'te</u>	-' <u>po'tela</u> (turn a corner)
<u>hlwiphi</u>	- <u>hlwiphitsa</u> (sniffle)	<u>tsho'be</u>	-' <u>tsho'bela</u> (dive into a hole)
<u>hwala</u>	- <u>hwalatsa</u> (shower)	<u>thu</u>	-' <u>thunya</u> (shoot)
<u>hwešhweše</u>	- <u>hwešetsa</u> (whisper)	<u>qhi'le</u>	-' <u>qhi'letsa</u> (limp)
<u>twatla</u>	- <u>twatlatsa</u> (snap)	<u>qo'pe</u>	-' <u>qo'petsa</u> (dip)
<u>kgiri</u>	- <u>kgiritisa</u> (scrape, stall)	<u>kobokobo</u>	-' <u>ko'bola</u> (peck)
<u>rau</u>	- <u>rauha</u> (get up suddenly)	X.	X.
<u>kgwaphu</u>	- <u>kgwaphuha</u> (start)	<u>'hlwii</u>	<u>'hlwi'bila</u> (snatch)
<u>hili</u>	- <u>hiliha</u> (tumble down)	<u>'thi</u>	-' <u>thitsa</u> (touch)
<u>minu</u>	- <u>minuha</u> (unfold)	<u>'nga</u>	-' <u>ngata</u> (strike, hit)
<u>tsiki</u>	- <u>tsikila</u> (reel, be dizzy)	<u>'tšing</u>	-
		X.	Y.
		<u>'thing</u>	<u>→thinya</u> (dodge)

In all these examples (except 'thing! -- thinya) the verbal radical is equivalent to ideophone plus suffix.

The variety of suffixes is large. (Cf. verb-nominal correspondence where the suffix -f- or -fal-, with very few exceptions ).

It will be noticed here that the verb and the corresponding ideophone belong to the same major Tone Group

in the majority of cases. One <sup>set</sup> ~~group~~ of examples, however, show a regular correspondence between X-verbs and Y-ideophones. e.g. tlu'le --- -'tlu^lela (jump in), etc. as in the last two columns. ~~It is here~~ The ideophone in this case corresponds to the first two syllables of the verbal radical. In some instances, where an ideophone corresponds to a dissyllabic verb, such ideophone is equivalent to the verb radical plus suffixal formative -i. e.g. verb -'ken-a (enter) cf. ideophone ke'ni (enter suddenly), verb -'em-a (stand up, stop) cf. ideophone ~~em~~ e'mi (stand up suddenly), etc. In correspondences of this kind the ideophone usually has a Tone & Pattern low-high.

It is interesting to note that most ad hoc formations of ideophones from verbs are on the basis illustrated by these examples, tlu'le -- -'tlu^lela, and e'mi -- -'ema.

In the next section it will be observed that verbs are grouped in only two main Tone Groups, X and Y. In each Tone Group verbs differ in their lexical structure, as the foregoing analysis shows, but have the same tonal characteristics and behaviour.

TENSE - FORMS OF THE VERB.

Verbs vary in form according to the circumstances of grammatical Time, Mood, Aspect, Implication, Negation and Affirmation. Such variation gives rise to Tense-Forms which are generally described in grammar books under the heading Conjugation of the Verb. In this study the classification of verb constructions into Tense-Forms (referred to here as A-Forms, B-Forms, etc) is based mainly on the tonal features and tonal behaviour of the verb. At the same time other non-tonal characteristics such as the nature of the tense-suffix, the kind of grammatical elements employed, and the nature of the construction of the verb as a whole, are taken into account.

In the following analysis each Tense-Form is studied in two parts: The Tone Patterns of the verb in the particular Tense-Form. The variety of construction under each Tense-Form.

Tone Patterns: In each Tense-Form the Tone Patterns are given in separate columns for X-verbs and for Y-verbs. In the first two columns the Tone Patterns are given for the verb-stem alone. In the second two columns the Tone Patterns are given for the verb-stem in conjunction with the object prefixal concord or the reflexive prefixal element -i-. In all four columns the tonal level of the subject concord (or other element which immediately precedes the stem or object concord) is shown by the tone

mark(s) just before the brackets; (In some Tense-Forms it is necessary to distinguish between subject concords with high tone (represented by 'ba) and those with low tone represented by ri or ra). ). In Tense-Forms where verbs have a tonal scatter of more than one Tone Pattern, these are shown vertically for each of the syntactical positions described as Context 1., Context 2., Context 3. (See p under A-Forms below).

A-FORM

Verbs in the A-Form have the following Tonal Patterns

e.g. 'ba	'le	"ba'reka	[ - ]	(they bought)	} <u>Context 1.</u>
ri	'le	ra'reka	[ - ]	(we bought)	
'ba	'le	"ba're'ka phufu	[ - ]	(they bought meal)	} <u>Context 2.</u>
ri	'le	ra're'ka phufu	[ - ]	(we bought meal)	
'ba	'le	"ba^reka "hape	[ - ]	(they bought again)	} <u>Context 3.</u>
ri	'le	ra^reka "hape	[ - ]	(we bought again)	

(In the chart below the Tone Patterns of each verb are given in the same order, as illustrated for the verb -reka above)

Tone

Group:

	X	Y.	X.	Y.
Subject concord	ja	tswa	muja	mutswa
'ba	[ - ]	[ - ]	[ - ]	[ - ]
ra	[ - ]	[ - ]	[ - ]	[ - ]
'ba	[ - ]	[ - ]	[ - ]	[ - ]
ra	[ - ]	[ - ]	[ - ]	[ - ]
'ba	[ - ]	[ - ]	[ - ]	[ - ]
ra	[ - ]	[ - ]	[ - ]	[ - ]

In the A-form it is not necessary to give the tone patterns for all three contexts for verb-stems of more than two syllables, since they have the same patterns in all contexts.

Context		rēka	bala	direka	dibala
1	'ba	[- -]	[- -]	[- -]	[- -]
	ra	[- -]	[- -]	[- -]	[- -]
2	'ba	[- -]	[- -]	[- -]	[- -]
	ra	[- -]	[- -]	[- -]	[- -]

Variety of constructions in the A-Form: In the following

3	'ba	[- -]	[- -]	[- -]	[- -]
	ra	[- -]	[- -]	[- -]	[- -]

4-1: se' betsa (to see) e.g. i'se' betsa

		se' betsa	tsamaya	i'se' betsa	i'tsamaya
1	'ba	[- - -]	[- - -]	[- - -]	[- - -]
	ra	[- - -]	[- - -]	[- - -]	[- - -]

2+3	'ba	[- - -]	[- - -]	[- - -]	[- - -]
	ra	[- - -]	[- - -]	[- - -]	[- - -]

se' bedisa tsamaisa di'se' bedisa di'tsamaisa

1, 2, 3	'ba	[- - -]	[- - -]	[- - -]	[- - -]
	ra	[- - -]	[- - -]	[- - -]	[- - -]

In this chart, as in all the others, the verb-stem (or the stem with the object concord) is written in the Tone Pattern of the <sup>Particular Tense-Form</sup> Basic form (A-Form) as it occurs in Context 1.

In the A-Form it is not necessary to give the Tone Patterns for all three Contexts for verb-stems of more than two syllables, since they have the same Patterns in all Contexts.

B-Form Except before monosyllabic stems, the relative level of the object concord or reflexive element -i- is not constant, particularly when the preceding subject concord is of low tone. e.g. rii'le ra'di'se'bedisa or rii'le radi'se'bedisa (we used them).

Variety of Constructions in the A-Form: In the following examples, where a construction consists of more than one verb the particular verb which has the A-Form is shown by underlining.

A-1: (a) hu'bona (to see) e.g. ki'rata hu'bo'na murena  
(I wish to see the chief)

(b) ha'ba'tlo 'bona (they will not see)

'batli'lo 'bona (they have come to see)

(c) 'ba'tia 'bona (they will see)

A-2. (a) 'tsatluha!' (they're off!) e.g. horses in a race.

'batia 'bamatha (how they ran!)

(b) 'bana 'batluha (they left) ---i.e. remote past

(c) 'ba'i'le "batluha (they left)

ha'ria'ka ratluha (we did not leave)

A-3. 'bane 'baka tluha (they could have left)

B-Forms: <sup>X.</sup> betsa <sup>Y.</sup> tsamaya <sup>X.</sup> i'se betsa <sup>Y.</sup> i'tsamaya

'baa<sup>^</sup>reka (they are ~~by~~ buying)(they buy) (Context 1)

'ba're'ka phufu (they are buying meal) (Context 2)

'ba<sup>^</sup>reka ha"hulu (they buy much) (Context 3)

	X. ja	Y. tswa	X. muja	Y. mutswa
'baa	[ - ]	[ - ]	[ - - ]	[ - - ]
ria	[ - ]	[ - ]	[ - - ]	[ - - ]
'baa	[ - - ]	[ - - ]	[ - - ]	[ - - ]
'ba	[ - ]	[ - ]	[ - - ]	[ - - ]
ria	[ - ]	[ - ]	[ - - ]	[ - - ]
'ba	[ - ]	[ - ]	[ - - ]	[ - - ]
ria	[ - ]	[ - ]	[ - - ]	[ - - ]

Variety of reka constructions bala-fora; di reka di bala

'baa [ - - ] [ - - ] [ - - ] [ - - ]

ria [ - - ] [ - - ] [ - - ] [ - - ]

(a) r'isa reka (we are still buying)

(b) rine 'risa reka (we were still buying)

'ba [ - - ] [ - - ] [ - - ] [ - - ]

B-3. ri'ka reka (we can buy, we may buy)

ria [ - - ] [ - - ] [ - - ] [ - - ]

The ~~see~~ subject concords of B-Forms are as given in

column 30 of table I. [when] the subject concord immediately precedes the verb-stem the tone patterns of Y-verbs vary according to the tonal level of the subject concord.

'ba [ - - ] [ - - ] [ - - ] [ - - ]

ria [ - - ] [ - - ] [ - - ] [ - - ]

	X.	Y.	X.	Y.
	'se' betsa	tsamaya	'i'se' betsa	i'tsamaya
'baa	[ - - - ]	[ - - - ]	[ - - - ]	[ - - - ]
ria	[ - - - ]	[ - - - ]	[ - - - ]	[ - - - ]
'ba	[ - - - ]	[ - - - ]	[ - - - ]	[ - - - ]
ri	[ - - - ]	[ - - - ]	[ - - - ]	[ - - - ]
	'se' bedisa	tsamaisa	'i'se' bedisa	'i'tsamaisa
'baa	[ - - - ]	[ - - - ]	[ - - - ]	[ - - - ]
ria	[ - - - ]	[ - - - ]	[ - - - ]	[ - - - ]
'ba	[ - - - ]	[ - - - ]	[ - - - ]	[ - - - ]
ri	[ - - - ]	[ - - - ]	[ - - - ]	[ - - - ]

Variety of Constructions: (B-Form)

- B-1 ria^reka (we are buying). ri're'ka diphahlo (we are buying goods)
- B-2. (a) ri'sa^reka (we are still buying)
- (b) rine 'risa^reka (we were still buying)
- B-3. ri'ka^reka (we can buy, we may buy)

The ~~eba~~ subject concords of B-Forms are as given in column 8(i) of Table I. When the subject concord immediately precedes the verb-stem the Tone Patterns of Y-verbs vary according to the tonal level of the subject concord.

e.g. the verb-stem -bala [ \_ \_ ] has a Tone Pattern H.M in conjunction with a subject concord of high tone, as  
'ba<sup>ˆ</sup>bala dɪtaba (they are reading the news) cf. ribala ~~ɔɪbax~~  
dɪtaba (we are reading the news) -- where the subject concord has low tone the stem -bala has a Tone Pattern L.L

The element -a- in B-1 (immediately after the subject concord) only occurs when the syntax relation of the verb to succeeding words is zero. This element always occurs on the same tonal level as the subject concord, except where the subject concord ~~has~~ and the initial syllable of the verb stem are both high; in such a case the element -a- occurs on a lower tonal level. e.g. 'ba-a-'reka (they are buying) (never 'ba'a<sup>ˆ</sup>reka ).

The element -sa- in B-2 (a) is always on the tonal level opposite to that of the subject concord, except where the subject concord has high tone and the verb-stem has low tone on the initial syllable; in such a case the element -a- occurs on a high tone level. e.g. 'ba'sabala (they are still reading). (never 'basabala).

In B-2(b) the tonal level of the subject concord (cf Table I col. 8(ii) ) is always high and that of the element -sa- always low.

In B-3 the subject concord (cf 8(ii) Table I) is always low in tonal level and the element 'ka is always high.

The subject shown in this Tense-Form always occurs in a high tone (See column 12 in Table I).

C - F O R M.

e.g. rine 'ri'reka (we were buying)

	X.	Y.	X.	Y.
	ja	tswa	muja	mutswa
'ba	- [- - ]	- [- - ]	- [- - ]	- [- - ]
'ri	- [- - ]	- [- - ]	- [- - ]	- [- - ]
'ba	- [- - ]	- [- - ]	- [- - ]	- [- - ]
'ri	- [- - ]	- [- - ]	- [- - ]	- [- - ]
	reka	bala	di'reka	di'bala
'ba	- [- - ]	- [- - ]	- [- - ]	- [- - ]
'ri	- [- - ]	- [- - ]	- [- - ]	- [- - ]
'ba	- [- - ]	- [- - ]	- [- - ]	- [- - ]
'ri	- [- - ]	- [- - ]	- [- - ]	- [- - ]
	re'kisa	tsamaya	di'rekisa	di'tsamaya
'ba	- [- - ]	- [- - ]	- [- - ]	- [- - ]
'ri	- [- - ]	- [- - ]	- [- - ]	- [- - ]
	se'bedisa	tsamaisa	mu'se'bedisa	di'tsamaisa
'ba	- [- - ]	- [- - ]	- [- - ]	- [- - ]
'ri	- [- - ]	- [- - ]	- [- - ]	- [- - ]

Monosyllabic stems in this Tense-Form are preceded by a vowel (-i-) in the 1st Context, except when they occur with the object concord or reflexive element. Even in 2nd Contexts this pre-stem vowel occurs, although not invariably. e.g. rine 'ri'i'ja (we were eating). rine x 'rii'ja nama (we were eating meat) or 'ri'ja nama (eating meat).

Verbs in this Tense-Form never occur in up-step syntax relation with a succeeding word. There, ~~are~~ is, therefore, no 3rd Context. *Tone Pattern*

The subject concord in this Tense-Form always occurs in a high tone (See column 8 (ii) in Table I).

There is only the one kind of construction (as illustrated) in the C-Form. It is a subordinate Tense-Form and is normally governed or supported by various verb-forms and conjunctives. In the following illustrations the C-Form 'ri'reka is syntactically related with various verb-forms and conjunctives:

<u>rine</u> we were	<u>'ri'reka</u> buying		<u>'ha</u> when	<u>'ri'reka</u> buying
<u>rise</u> we are already	<u>'ri'reka</u> buying		<u>while</u> if	
<u>ri'ntse</u> we are busy			<u>'li'ha</u> although	
<u>rine 'ri'ntse</u> we were busy	"		<u>'hoja</u> while	
<u>ri'kabe</u> we would be				
<u>ritla'be</u> we shall be	"		<u>'bari'fu'mani</u> they found us	"
<u>ri'mpa</u> we are merely	"		<u>rine 'ri'fe'la</u> we were actually	

X-stem

In the A C-Form dissyllabic stem in Context 1. ~~xx~~ generally has a gliding ~~xxx~~ tone on the penultimate syllable -- i.e. a low/rising to high tone, e.g. rine 'ri'reka - [ / - ], (we were buying).

the same tone pattern

D-FormD - F O R M.E.g. ri're<sup>h</sup>kile (we have bought)'barobetsi (they are asleep)

The tense-suffix -ile, -itse (and other variants) is normally dissyllabic. In conjunction with a monosyllabic verbal radical a dissyllabic verb-stem is realised. Consequently there are no monosyllabic verbs in this Tense-Form. In some cases this tense-suffix in conjunction with a dissyllabic radical gives rise to a dissyllabic verb stem either as the only form or, in a few instances, as an alternative to a trisyllabic stem. e.g. -batl- (seek) cf. -batlile (has sought) (D-Form), but -'bon- (see) cf.

-'boni (has seen) (D-Form); -jar- (carry) cf. -jeri (has carried, is carrying). Similarly with trisyllabic and other polysyllabic radicals the C-Form may occur with the same number of syllables as those of the radical. e.g. -'pa<sup>h</sup>lam- (ride) cf. -'pa<sup>h</sup>lami or -'pa<sup>h</sup>lamile (is riding, has ridden), -'fu<sup>h</sup>thumal- (get warm) cf. -'fu<sup>h</sup>thumetsi (be warm).

In the D-Form verbs with an equal number of syllables (and of the same Tone Group) have the same tonal scatter, even if their radicals are unequal in the number of syllables. For instance -tlile and -jeri or -<sup>h</sup>jile and -<sup>h</sup>bonéi have the same tonal scatter.

Variety of Constructions in D-Form: There are two main constructions in this Tense-Form:

D-1. ri'boni (we have seen)  
D-Form

D-2. (a) X. ri'sarobetsi Y. (we are still X. sleep) Y.

ri'jile  
boni      ri'sarobetsi      Y.      mu'jilel asle      di'jeri

'ba  
ri      [ - - ]      [ - - ]      [ - - ]      [ - - ]

'ba  
ri      [ - - ]      [ - - ]      [ - - ]      [ - - ]

'ba  
ri      [ - - ]      [ - - ]      [ - - ]      [ - - ]

re'kile      batlile      di're'kile      di'batlile  
'ba      [ - - ]      [ - - ]      [ - - ]      [ - - ]

ri      [ - - ]      [ - - ]      [ - - ]      [ - - ]

'ba  
ri      [ - - ]      [ - - ]      [ - - ]      [ - - ]

'ba  
ri      [ - - ]      [ - - ]      [ - - ]      [ - - ]

se'beditse      tsamaile      di'se'beditse      i'tsamaile  
'ba      [ - - ]      [ - - ]      [ - - ]      [ - - ]

ri      [ - - ]      [ - - ]      [ - - ]      [ - - ]

It will be observed here that the object concord (or reflexive element) is always on the opposite tonal level to that of the initial syllable of the verb-stem.

Variety of Constructions in D-Form: There are two main constructions in this Tense-Form:

D-1. ri<sup>h</sup>boni (we have seen)

e.g. rine "ri<sup>h</sup>skile (we had bought) (cf. D-Form)

D-2. (a) ri<sup>h</sup>sarobetsi (we are still asleep)

(b) rine "risarobetsi (we were still asleep)

In 2(a) the element -sa- generally occurs on a tonal level opposite to (that of the initial syllable of) the subject concord, except when the initial syllable of the verb-stem has low tone, in which case -sa- occurs on a high tone. Before the object concord or reflexive element -i-, the element -sa- generally occurs on a high tone. (In conjunction with this element the object concord or reflexive -i- is usually realised as a high tone).

In 2 (b) above, where the subject concord before -sa- is always of a high tone, the tonal level of -sa- is always low.

The object concord or reflexive element always occur /E-Form....  
on the opposite tone level to that of the initial syllable of the verb-stem. The subject concord (cf. vol. 3(11) table) always has high tone.

There are no other varieties of constructions other than the one illustrated above. Like the D-Form, this Tense Form is also a subordinate Form which may occur in similar circumstances to those illustrated for D-Form. (i.e. It may be substituted for the D-Form in some situations).

E - F O R M R M

e.g. rine 'ri'rekile (we had bought) (Cf. D-Form)

The negative element Y. and the subject concord Y.ri- are

	<sup>u</sup> boni	je <sup>r</sup> ri	u <sup>u</sup> boni	di <sup>r</sup> je <sup>r</sup> ri
'ba	[ - ]	[ - ]	[ - ]	[ - ]
'ri	[ - ]	[ - ]	[ - ]	[ - ]
X.	X.	X.	Y.	
'ba	[ - ]	[ - ]	[ - ]	[ - ]
'ri	[ - ]	[ - ]	[ - ]	[ - ]
	<sup>r</sup> re <sup>r</sup> kile	bat <sup>l</sup> ile	di <sup>r</sup> re <sup>r</sup> kile	<sup>r</sup> dibat <sup>l</sup> ile
'ba	[ - ]	[ - ]	[ - ]	[ - ]
'ri	[ - ]	[ - ]	[ - ]	[ - ]
'ba	[ - ]	[ - ]	[ - ]	[ - ]
'ri	[ - ]	[ - ]	[ - ]	[ - ]
	<sup>s</sup> se <sup>r</sup> be <sup>r</sup> ditse	t <sup>s</sup> sa <sup>r</sup> ma <sup>r</sup> ile	di <sup>r</sup> se <sup>r</sup> be <sup>r</sup> ditse	<sup>r</sup> it <sup>s</sup> sa <sup>r</sup> ma <sup>r</sup> ile
'ba	[ - ]	[ - ]	[ - ]	[ - ]
'ri	[ - ]	[ - ]	[ - ]	[ - ]
'ba	[ - ]	[ - ]	[ - ]	[ - ]
'ri	[ - ]	[ - ]	[ - ]	[ - ]

The object concord or reflexive element always occur on the opposite tone level to that of the initial syllable of the verb-stem. The subject concord (cf. col.8(ii) Table I) always has high tone.

There are no other varieties of constructions other than the one illustrated above. Like the C-Form, this Tense Form is also a subordinate Form which may occur in similar circumstances to those illustrated for C-Form. (i.e. It may be substituted for the C-Form in most situations).

The above example is the only kind of construction in F-Form. (The subject concords are as in col. 8(ii) of Table I)

## F - F O R M

e.g. ha'ria'reka (we have not bought)

The negative element ha- and the subject concord ('ri-) are always in a tone pattern low-high. The tone level of the element -a- varies as shown by the mark before each bracket.

X.	Y.	X.	Y.
*ja	*tswa	*muja	*mutswa
- [ - ]	- [ - ]	- [ - - ]	- [ - - ]
- [ - ] -	- [ - ] -	- [ - - ] -	- [ - - ] -
*reka	ba'tla	*di'reka	*di'ba'tla
- [ - - ]	- [ - - ]	- [ - - - ]	- [ - - - ]
- [ - - ] -	- [ - - ] -	- [ - - - ] -	- [ - - - ] -
*se'betsa	tsa'maya	*di'se'betsa	*i'tsa'maya
- [ - - - ]	- [ - - - ]	- [ - - - - ]	- [ - - - - ]
- [ - - - ] -	- [ - - - ] -	- [ - - - - ] -	- [ - - - - ] -
*se'be'disa	tsa'ma'isa	*di'se'be'disa	*di'tsa'ma'isa
- [ - - - - ]	- [ - - - - ]	- [ - - - - - ]	- [ - - - - - ]
- [ - - - - ] -	- [ - - - - ] -	- [ - - - - - ] -	- [ - - - - - ] -

always on the high tone level.

It will be observed that the element -a- is always opposite in tonal level to the next syllable.

The above example is the only kind of construction in F-Form.

(The subject concords are as in col. 8(ii) of Table I)



## Constructions in the H-Form:

H - F O R MH-1. riye ri<sup>ˆ</sup>reki (we usually buy)e.g. riye ri<sup>ˆ</sup>reki (we usually buy) that particular occasion)

(The subject concord always occurs on a low tone, except

before -sa- (see H-2, H-3, H-4 below).

X.	Y.	X.	Y.
#ji	#tswi	#muji	#mutswi
[ - ]	[ - ]	[ - - ]	[ - - ]
[ - ]	[ - ]	[ - - ]	[ - - ]
[ - ]	[ - ]	[ - - ]	[ - - ]
#reki	ba <sup>ˆ</sup> li	di <sup>ˆ</sup> reki	#di <sup>ˆ</sup> ba <sup>ˆ</sup> li
[ - - ]	[ - - ]	[ - - - ]	[ - - - ]
[ - - ]	[ - - ]	[ - - - ]	[ - - - ]
[ - - ]	[ - - ]	[ - - - ]	[ - - - ]
#se <sup>ˆ</sup> betsi	t <sup>ˆ</sup> sa <sup>ˆ</sup> mayi	di <sup>ˆ</sup> se <sup>ˆ</sup> betsi	#i <sup>ˆ</sup> t <sup>ˆ</sup> sa <sup>ˆ</sup> mayi
[ - - - ]	[ - - - ]	[ - - - - ]	[ - - - - ] Contexts 1 & 3
[ - - - ]	[ - - - ]	[ - - - - ]	[ - - - - ] Context 2
#se <sup>ˆ</sup> be <sup>ˆ</sup> disi	t <sup>ˆ</sup> sa <sup>ˆ</sup> ma <sup>ˆ</sup> isi	di <sup>ˆ</sup> se <sup>ˆ</sup> be <sup>ˆ</sup> disi	#di <sup>ˆ</sup> t <sup>ˆ</sup> sa <sup>ˆ</sup> ma <sup>ˆ</sup> isi
[ - - - - ]	[ - - - - ]	[ - - - - - ]	[ - - - - - ] Contexts 1 & 3
[ - - - - ]	[ - - - - ]	[ - - - - - ]	[ - - - - - ] Context 2

Monosyllabic stems in conjunction with object concords have an alternate Tone Pattern low-high in Contexts 2 and 3.

Variety of Constructions: riye

Constructions in the H-Form:

- H-1. riye ri^reki (we usually buy)  
rine ri^reki (we bought -- on that particular occasion)
- H-2 rine 'rie'so ^reki (we had not yet bought)  
ha'rie'so ^reki (we have not bought yet)
- H-3. rine 'risa^boni (we did not see)  
rine 'risa^reki (we were not buying)
- H-4. 'usi^reki (you must not buy)
- H-5. si^reki (do not buy) (singular)  
si're'king (do not buy) (plural)

I - F O R M

- e.g. rine 'risa'reka (we had not bought)
- rine 'risarebetei 'risaro'bala (we were not asleep)

(The subject concord has high tone. The element -sa- has low tone).

X.	Y.	X.	Y.
ɲja	ɲtswa	ɲdija	ɲmutswa
[ - ]	[ - ]	[ - - ]	[ - - ]
[ - ]	[ - ]	[ - - ]	[ - - ]
[ - ]	[ - ]	[ - - ]	[ - - ]

X. reka	Y. ba'tla	X. di'reka	Y. di'ba'tla
[ - ]	[ - ]	[ - ]	[ - ]
e.g. 'reka (buy)	'ro'kang (buy) (plural)		
[ - ]	[ - ]	[ - ]	[ - ]
'i'ake (buy it)	'i'ro'kang (buy it) (plural)		
[ - ]	[ - + ]	[ - ]	[ - ]
X. se'betsa	Y. tsa'maya	X. di'se'betsa	Y. di'tsa'maya
[ - ]	[ - ]	[ - ]	[ - ]
[ - ]	[ - ]	[ - ]	[ - ]
[ - ]	[ - ]	[ - ]	[ - ]
X. se'be'disa	Y. tsa'ma'isa	X. di'se'be'disa	Y. di'tsa'ma'isa
[ - ]	[ - ]	[ - ]	[ - ]
[ - ]	[ - ]	[ - ]	[ - ]
[ - ]	[ - ]	[ - ]	[ - ]

There are no other varieties of constructions in this Tense-Form. As in the case with C-Forms and E-Forms, verbs in the I-Form occur in subordinate clauses and are governed or supported by various verb-Forms and conjunctives. e.g. riye rimu'fu'mani "asaro'bala (we usually find him not asleep). 'ha 'asaro'bala ... (if he is not asleep...)

/J-Form.....

J - F O R M

e.g. 'reka (buy) 're'kang (buy) (plural)  
 'i'reke (buy it) 'i're'keng (buy it) (plural)

This Tense-Form has no prefixal element corresponding to the subject concord. The part of the verb in conjunction with the plural suffix -ng the basic verb is realised in the Tone Pattern of the second Context. (i.e. the suffix -ng occurs after the verb in Tone Pattern 2). This suffix has low tone in all contexts.

Monosyllabic verbs occur with an extra syllable whenever there is no object concord or reflexive -i-. There are no other variations of construction in this Tense-Form. The extra syllable ither occurs before the verb. initially, e.g. i'ja (eat), i'ya (go), or finally. e.g. ja'a (eat), ya'a (go).

X.	Y.	X.	Y.
e.g. ja'a	tswa'a	dije	mutswa
[ - ]	[ - ]	[ - ]	[ - ]
[ - ] -	[ - ] -	[ - ] -	[ - ] -
[ - ]	[ - ]	[ - ]	[ - ]
reka	ba'tla	di'reke	diba'tle
[ - ]	[ - ]	[ - ]	[ - ]
[ - ] -	[ - ] -	[ - ] -	[ - ] -
[ - ]	[ - ]	[ - ]	[ - ]

X.	Y.	X.	Y.
*se <sup>h</sup> bet <sup>h</sup> sa	tsa <sup>h</sup> ma <sup>h</sup> ya	*di <sup>h</sup> se <sup>h</sup> bet <sup>h</sup> se	*di <sup>h</sup> tsa <sup>h</sup> ma <sup>h</sup> ye
[ - - ]	[ - - ]	[ - - - ]	[ - - - ]
[ - - ]	[ - - ]	[ - - - ]	[ - - - ]
[ - - ]	[ - - ]	[ - - - ]	[ - - - ]
*se <sup>h</sup> be <sup>h</sup> di <sup>h</sup> sa	tsa <sup>h</sup> ma <sup>h</sup> isa	*di <sup>h</sup> se <sup>h</sup> be <sup>h</sup> di <sup>h</sup> se	*di <sup>h</sup> tsa <sup>h</sup> ma <sup>h</sup> ise
[ - - - ]	[ - - - ]	[ - - - - ]	[ - - - - ]
[ - - - ]	[ - - - ]	[ - - - - ]	[ - - - - ]
[ - - - ]	[ - - - ]	[ - - - - ]	[ - - - - ]

There are no other varieties of construction in this Tense-Form.

K - F O R M

e.g. 'u'bone (you must see/look out)

X	Y.	X.	Y.
je	tswe	*di <sup>h</sup> je	mu <sup>h</sup> tswe
[ - ]	[ - ]	[ - - ]	[ - - ]
Gentexte			
[ - ]	[ - ]	[ - - ]	[ - - ]
*[ - - ]	*[ - - ]	*[ - - - ]	*[ - - - ]

singular, 'a-'ri' tsasa'yo (let us go -- you and I) and 'a-'ri' tsaba'yeng (let us go) plural. (The suffix -ng has low tone, and is suffixed to the basic verb in Tone Pattern of the second context. Cf. J-Form).

	X.	Y.	X.	Y.
	reke	batle	di'reke	diba'tle
read/cons	- [ - ]	- [ - ]	- [ - ]	- [ - ]
As a word unit	- [ - ]	- [ - ]	- [ - ]	- [ - ]
category I	- [ - ]	- [ - ]	- [ - ]	- [ - ]
in the kin	- [ - ]	- [ - ]	- [ - ]	- [ - ]
At the same time				
stems (i.e.)	sebe'tse	tsama'ye	di'se'betse	dife't'sise
forming syn	- [ - ]	- [ - ]	- [ - ]	- [ - ]
from the	- [ - ]	- [ - ]	- [ - ]	- [ - ]
(i)	- [ - ]	- [ - ]	- [ - ]	- [ - ]
(defect				
(ii)	sebedi'se	tsamai'se	di'se'be'dise	ditsa'ma'ise
In the first	- [ - ]	- [ - ]	- [ - ]	- [ - ]
with the	- [ - ]	- [ - ]	- [ - ]	- [ - ]
the regular pattern	- [ - ]	- [ - ]	- [ - ]	- [ - ]
succeeding	- [ - ]	- [ - ]	- [ - ]	- [ - ]

A variant of the K-Form illustrated above consists of an element 'a- or 'ha- (before (high tone) before the class prefix subject concord. e.g. 'a-'ri'tsama'ye (let us go) In this Form a suffix -ng also occurs .e.g. 'a-'ri'tsama'yeng (let us go) (plural). There are therefore three numbers in the K-Form: 'a-'ki'tsama'ye (let me go ) singular, 'a-'ri'tsama'ye (let us go -- you and I) dual, and 'a-'ri'tsama'yeng (let us go) plural. (The suffix -ng has low tone, and is suffixed to the basic verb in Tone Pattern of the second Context. Cf. J-Form).

NOMINO-VERBALS ARE verb-forms with a nominal class prefix hu- (class 15) e.g. hu-bala (to read, to count), hu-siba'li (not to read/count).

As a word unit the nomino-verbal has characteristics of words of category I in belonging to a nominal class or agreement series, and in the kind of syntax relations in which it occurs.

At the same time the nomino-verbals are peculiar in that their stems (i.e. the verbal element) have the characteristic of verbs of forming syntax relations with other words independently and apart from the syntax relations formed by the nomino-verbal as a whole. e.g.

- (i) hu'hlu'lwa 'ka-mi'hla 'hubu'hluku (to be defeated is always painful)  
 (defeat always is painful)
- (ii) hu^hlulwa "ka-mi'hla 'hubu'hluku (to be always defeated is painful)

In the first example the nomino-verbal hu'hlu'lwa as a unit relates with the following word 'ka-mi'hla on a down-step pattern - i.e. the regular pattern of relation between a C.I word and any succeeding word which has formative 'ka- initially. In this example the verbal element -hlu'lwa is simply an inactive stem.

In the second example the verbal element -^hlulwa relates with the word "ka-mihla on an up-step pattern - i.e. the normal pattern of relation between a verb in the A-form and a following adjunct which commences in formative 'ka-. The whole sequence -^hlulwa - "ka-mi'hla constitutes the stem of the nomino-verbal.

THE STEM: of a nomino-verbal is a verb in the A-form or in the H<sub>v</sub>-form. In either case it may be (a) the simple verb, (b) the verb with object prefixal concord or reflexive prefix -i-, (c) the verb followed by various adjuncts, (d) the verb with prefixal extensions as well as following adjuncts.

(The meaning of the H-form is the negative of the one given for the A-form in each case, e.g. hu'ja (to eat) - husi'ji adjunct is as described under syntax of the verb. (not to eat)

<u>A-forms</u>	<u>H-forms</u>
X-division	
hu'ja (to eat)	husi'ji
hu'butsa (to ask)	husi'butsi
hu'se^betsa (to work)	husi'se^betsi
hu'se'bedisa (to use)	husi'se'be^disi
Y-division	

hutswa (to go out)	husi'tswi
hubala (to read)	husiba'li
hutsamaya (to travel)	husitsa^ mayi

### Nemino-verbal

hutsamaisa (to drive)	husitsama^isi
hutsama^setsa (to drive for)	husitsama^setsi

(b) In the following examples the verbal element (the stem) occurs with the object concord or the reflexive prefix -i- :

### X-division

hu'dija (to eat them)	husi^diji
hum'mutsa (to ask <sup>him</sup> them)	husi'm^mutsi
hudi'se^betsa (to work them)	husidi'se^betsi

### Y-division

hum'malla (to read to him)	husi'mma^lli
hu'i'tsamaisa (to drive itself)	husi'itsa'ma^isi

(c) & (d) In these examples the stem is extended by prefixal elements as well as by various succeeding adjuncts and clauses.

The pattern of relation between the verb and the following adjunct is as described under syntax of the verb.

hu'ja "liyena . | hu'ja "jwalo | hu'ja 'tsa'hai | humu'ja dikgoimu  
 to eat with him | to eat like that | (to eat his own) (to fine him  
~~dikgo'mu (cattle)~~ preceding

hu^muja "jwalo . humu'amuha din'tho "tsa'ha'i 'kau'fela  
 (to fine him like that) 'kau'fela (to deprive him of all his  
 belongings)

hutsamaya 'lin'tse 'li'tshwenya bathu husi'ra'ti bathu  
 to go about bothering people to dislike people

husi'ma^meli 'li'ha 'u^hlola "ukga'limelwa  
 TO DISOBEY even when constantly reprimanded

These examples are sufficient to illustrate the possibilities of extension of the stems of nomino-verbals. No attempt is made here of classifying these extended stems into tonal groups. The over-all tonal pattern of each nomino-verbal has to be arrived at by analysing each word independently and applying the rules of tonal syntax which are fully described for each category and type of words.

mutu ya "you  
 (person with whom)

Cf. I-Form:

Where the relative  
 ki would appear in

Relative verb-forms (Cf. Category II type 8):  
 Relative verb-forms are sub-variants of the Tense-Forms described below. The relative verb occurs with a suffix -ng which normally has low tone. The part of the verb preceding this suffix is in Tone Pattern 2 but the final syllable of this part of the verb plus the suffix -ng often constitute one syllable. When this is the case the final syllable of the verb occurs on a low tone.

Ngwana "yeu 'ki'bu'ang 'liyena / 'ki'buang 'liyena  
 (child to whom I am speaking)

'yeu 'ki'qoqang 'liyena.  
 (one with whom I am chatting)

Cf. C-Form: kine 'ki'bu'a 'liyena (I was talking to him)

kine 'ki'qoqa 'liyena (I was chatting with him)

m̄e muthu "yeu 'ki'bu'ileng 'liyena (the person with whom I spoke

'yeu 'kifi'tileng 'liyena (one with whom I went past

Cf. E-Form: kine-'ki'bu'a-'liyena-(I-was-talking-to-him)

kine 'ki'bu'ile 'liyena (I had spoken to him)

kine 'kifi'ti'le 'liyena (I had gone past with him)

muthu "yeu 'kisa'bu'ing 'liyena (person to whom I do not speak)

'kisaqo'qing 'liyena (one with whom I do not chat)

Cf. H-Form: kine 'kisa'bu' ditaba / 'Kisa'bu' 'liyena

'kisaqo'qi

muthu X<sub>2</sub> "yeu 'kisa'buang 'liyena / 'kisa qo'qang 'liyena  
 (person with whom I have not spoken/not chatted)

Cf. I-Form: rine 'risa'bu'a ditaba / 'risa'bu' 'liyena / 'risa'qo'qa  
 (we had not spoken.. not spoken with him/not chatted)

Where the relative concord (e.g. 'yeu) and subject concord (e.g. ki) would agree in concord, only the relative concord occurs (See p. 11-8)

The analysis of Tense-Forms as given above deals with tone on the ~~lexical~~ and inflectional plane as well as on the plane of syntax. Taking the plain stem in the A-Form as basic, then the stem in conjunction with the object concords or ~~or~~ reflexive element -i-, (and in some instances with suffix -ng) could be regarded as an inflected form.

The subject concords vary in tonal level from one Tense-Form to another, and in some cases they vary within the same ~~Tense~~ Tense-Form, as for instance when 1st and 2nd subject concords occur in low tone where the other class subject concords occur in high tone. Sometimes other elements (other than the object concord or reflexive element) occur immediately before the stem of the verb. Any of these elements are in a sense inflectional elements and often determine the Tone Pattern of the verb-stem.

Apart from differences in tone which are ~~dise~~ determined by the occurrence of such elements as these, there are also differences which are determined on syntax grounds. In the next section the circumstances which determine tone on the syntax plane are described.

#### Syntax relations of the verb.

As in the case of nominal words the same principles of ~~applying~~ distinguishing kinds of syntax relations are applied to verbal words. In their basic form (A-Form) X-verbs with dissyllabic stems consist of three distinct Tone Patterns, and this feature is made use of in classifying

kinds of syntax contexts (cf. same method in the case of nominal words. p 69 ). The same kinds of tonal transition found in nominal syntax relations are also x found here. In the B-Tense-Form zero syntax relation is further indicated by the occurrence of an element -a- immediately after the class prefix.

On the basis of these tonal (as well as formal) criteria syntax relations of verbs with succeeding words may be classified into three kinds: Zero relation: these are indicated by the absence of the tone-step, and also by the occurrence of the verb in Tone Pattern 1. The occurrence of certain elements in some Tense-Forms are also indicative of zero relation (cf. element -a- in B-Form, and the pre-stem vowel in C-Form). Down-step relations which occur under certain specified conditions. (cf nominal syntax relations where down-step relations are the commonest). In these relations the verb occurs in Tone Pattern 2, and a down-step tonal transition occurs. Up-step relations in which the verb occurs in Tone Pattern 3 and relates with the succeeding word on an up-step basis.

In some Tense-Forms verbs do not give rise to up-step tonal transitions with succeeding words. (Cf C-Form, G-Forms). In this respect they behave like ~~xxx~~ nominals words of Categories II and III.

(1) The verbal clause introduced by huni is the direct object of the preceding verb, the first verb takes Tone Pattern 2, thus showing syntax relation to the following clause.



B-J:

'u^atla 'mu'e'mele  
(he is coming wait for him)

ua^bitswa 'a'ra'bela  
(you are called answer)

B-K:

kia^rata 'atle (I desire (it) (that) he may come)  
(I wish he should come)

D-D sequence:

ki'li^kile ki^hlutswi  
(I have tried I have failed)

ki'li^kile kibi'le ki^hlutswi  
(I have tried and even failed)

\*u^boni \*ubi'le \*u^kgotswi (you have seen and been  
(you have seen you even are convinced) satisfied)

*'u^boni 'ubi'le 'u^kgotswi (he has seen and is even convinced)*

'ba^dutsi 'banamme (they have settled down (and) spread  
(they are settled they are spread out) themselves)

'u^jile 'u^kgutshi  
(~~I knew~~ he is satisfied)  
*he has eaten*

D-B:

ki'tsi^bile 'u'tla 'hana cf ki'tsi^bile huri 'u'tla 'hana  
(I knew he will refuse) (I knew (it) that he will refuse)

ki'tsi'bi'le huri 'u'tla 'hana

ki^boni 'u'alwana (I saw that he meant to put up a fight)  
(I saw he is fighting)

D-F:

ki^boni ha'ua'ja cf ki^boni huri ha'ua'ja  
(I saw you have not eaten) (I saw that you have not eaten)  
ki'bo'ni huri ha'ua'ja

'ibi'le ha'ua'ja (moreover you have not eaten)  
(it has been you have not eaten)

D-G:

ki<sup>^</sup>boni ha<sup>^</sup>uji cf ki<sup>^</sup>boni huri ha<sup>^</sup>uji  
 (I have noticed you do not eat) (I have noticed that you do not eat)

'bau<sup>l</sup>twile ha<sup>^</sup>kitli ki<sup>^</sup>bo<sup>^</sup>ni huri ha<sup>^</sup>uji  
 (they have heard I am not coming)

D-K:

'bai'tse 'li'eme  
 (they said you must wait)

'ui'tse 'ki'udu'me'dise  
 (they said I should greet you)

F-F sequence:

ha'di'a no'na ha'di'ano'na (they are very fat indeed)  
 (they are not fat they are not fat)

ha'dia<sup>^</sup>ota ha'dia<sup>^</sup>ota (they are fearfully lean)  
 (they are not lean they are not lean)

F-D:

ha'ri'ala'pa ri<sup>^</sup>swile (we are dying of hunger)  
 (we are not hungry we are dead)

F-B:

ha'di'ano'na 'di'atshwehla (they are very fat)  
 (they are not fat they are greasy)

G-G sequence:

ha'a<sup>^</sup>tshisi ha'a<sup>^</sup>bati  
 (he is not hot he is not cold)

G-A:

ha'ba<sup>^</sup>qeti 'batsamaya? (why don't they finish and go away?)  
 (they do not finish and go)

G-B:

ha'ba^bini      'ba'ahlomula (they sing so well that one's  
 (they do not sing they stir feelings ~~and~~ stirred)  
 the feelings) are

ha'a^qeli      'u'atseka  
 (he is not asking, he is demanding)

G-D:

ha'a^bui      'ua^hlami      ^feela  
 (he does not speak he is just gaping)

J-J sequence:

'ema      tsa'maya  
 (stand up walk/go)

J-B:

n'tshware      kia'm'mh^laya  
 (restrain me I am killing him)

'bona      ua'tsha  
 (look out you are catching fire)

pha'kisa      kitla'u^emela  
 (hurry I shall wait for you)

n'ke'mele      kiatla  
 (wait for me I am coming)

J-D:

ba'tshwa'rele      'bafositse  
 (forgive them they have erred)

'bua      'bama^metsti  
 (speak they are listening)

'ema      kise      "kitli'le (wait I am already coming)  
 (wait I have already I have come)

J-F:

'ema      ha'ria^qeta  
 (wait we have not finished)

'bua      ha'ua'thi^belwa (speak there is no one stopping you)  
 (speak you are not prevented)

J-G:

'tiya      ha'bau^boni  
 (stand fast) they do not see you)

J-K:

'ema      'ri'butse  
 (stop (that) we may inquire)

tlo'o      'ri'bue  
 (come let us speak)

i'ri      'ki'bone  
 (let me see)

K-K sequence:

'u'tshware      'u'tii'se (hold fast)  
 (you must hold you must grip fast)

'u'tsama'ye 'ube 'u'kgutle (you must go and even come back)  
 (you must go you must even you must come back)

'u'buele      'u'kgutle (you must come back again)  
 (you must repeat you must come back)

'u'nne      'uri'hlwele (you must look us up occasionally)  
 (you must keep on you must call on us)

'uke      'uri'thuse' (you must please help us)  
 (you must please you must help us)

'ba'mpe      'ba'tsama'ye (they had better leave/go)

K-B:

'umu'jwetse      'u'abattleha  
 (you must tell him he is needed)

'u'eme      'ba'tlau'bitsa  
 (you wait they will call you)

K-D:

u'bone      'bau'soketsi  
 (you must look out they are after your blood)

'a'phaki'se 'u'tshwa'rel'le'tsi bathu  
 (he must hurry he is holding everybody up)

K-F.....

D-form

K-F:

'ba'dule ha'baa'mengwa  
(they must stay away they have not been invited)

u'bue ha'ua'thi'belwa  
(you should speak, you are not prevented)

'ba'keni

✓ Verb-verb relationUP STEP: RELATION:A-form

C.

'ba'tla^bona "ri^fihla (they will see us arriving)

C.

'ba'tla^tsiba "risafihla (they will know as soon as we arrive)

(we still arriving)

E.

rii'le ra^bona "ba'du'tsi ^fatshi (we saw them sitting down)  
(we saw) (they having sat down)

H.

'bai'le "ba^bona "risafi'hli (they noticed our not arriving)  
(they noticed) (we not arriving)

I.

'ba'tla 'ja "basahla'pa? (will they eat without washing their hands?)

B-form:

C.

'ba^bua "ba^swaswa (they speak joking - they speak in jest)

E.

'ba^ bua "ba'emi (they speak standing)

H.

'ba^bua "basa'tshabi (they speak not fearing)

I.

'ba^kena "basa'mengwa (they enter uninvited)

D-form....

D-form

C.

'baba^tli"bari'bona (they nearly saw us)'ba^letsi"baha^tsela (they passed the night freezing)

E.

kimu'fu^mani"aro'betsi (I found him asleep)

H.

'ba^keni"risa'fi'hli (they entered before we came)

K.

unya^fi"u'fihle (you arrived in the nick of time)

I.

ritlu^hile"risa'ja (we left without having had a meal)H-form:

C.

ha'kie'so^boni"ase^betsa (I have not yet seen him working)

E.

kiye ki^boni"a'du'tsi^feela (I usually see him just sitting)si^bui"u'du'tsi ^fatshi (do not speak sitting down)

H.

kiye ki^utlwi'kisa^rati (I usually feel disinclined)

I.

ha'kie'so fi'hli"kisa'li'be'llwa (I have not yet arrived unexpected)I-form:

C.

rine 'risa^utlwa"huthwi ... (we had not heard it said) ...

E.

'li'ha'usa^tshwarwa"udi'n'kile... (although you were not caught with them on your person) ...J-form:

C.

^sala"u^lla (remain crying)

E.

^sala"u'emi (remain standing)tso^ong"li'emi (be standing in the meantime)J-form (contd.) .. ...

J-form (contd):

H.  
 'dula 'bo'ni "usatsi' tsi^nyehi (sit without shaking) take)  
 (I do not see there being a mistake)

I.  
 'dula "usana'ma (sit without stretching  
 your legs)

K-form:

C.  
 'u'sale "u^hleka ((you remain tidying up))

E.  
 'u'dule "ui'ti'betsi ((stay on your guard) sleep)

H.  
 'u'dule "usatsi' tsi^nyehi (you remain without shaking)  
 (find me here)

I.  
 'u'dule "usana'ma (sit without stretching  
 your legs)

Verb-Verb Relation:DOWN-STEP RELATION:

F-form: "ha'g'na C. (they stopped (and) looked  
 on)

ha'ria'la'la 'ri'bina (we did not spend the night  
 (we did not sleep singing) singing)

A.  
 ha'ba'atlu'ha 'ba'sinya (and then they went and spoilt  
 (did they not then go spoil) everything)

E.  
 ha'ria'la'la 'riro'betsi (we did not spend the night  
 (we did not pass the night asleep) (they were sleeping)

H.  
 ha'ria'bu'si'sa 'risa'bu'i^sani  
 (did we not spend the night not speaking to one another)

I.  
 ha'ri'aro'ba'la 'risa'ja (we did not go to sleep without  
 having taken a meal).

(i) Even where the second subordinate is supported by the  
 first subordinate verb, the relation is G-form....  
 subordinate verbs were supported by a common verb or  
 conjunctive. Thus hane hane hane hane is either  
 subordinate to hane or to hane.

G-form:

C.  
ha'ki'bo'ni 'hu'li te'ng phoso (I do not find any mistake)  
 (I do not see there being a mistake)

E.  
ha'ki'bu'i 'ki'dutsi (I do not speak sitting  
 down)

H.  
ha'ki'bo'ni 'lisa^bui (don't I see you speaking)

I.  
ha'ki'bo'ni 'lisaro'bala (don't I see you not asleep)

K.  
ha'ki'ra'ti 'am'phu^mane^mona (I do not wish him to  
 find me here)

In each of the above examples the first verb is self-standing and the second verb is subordinate to it.

(a) In the following examples the subordinate verbs are supported by the same verb or conjunctive.

A. A.  
 'ba'le "ba'e^ma 'batadima (they stopped (and) Looked  
 on)

C. C,  
 'bane "babu'a 'bao^mana (i) (they were speaking and  
 rowing)  
 they were speaking  
 heatedly)

E. E.  
 'bane "ba'bu'a 'ba'ha'li^file (they were speaking  
 angrily)

E. H.  
 'bane "ba'bu'a 'basa^rati (they were speaking  
 reluctantly)

C. I.  
 'une "a'bu'a 'asa'i'ma'mela (he was speaking  
 without having thought)

E. E.  
 'bane "ba'e'mi 'bama'ketsi (they were standing  
 dumbfounded)

(i) Even where the second subordinate is supported by the first subordinate verb, the relation is as if both subordinate verbs were supported by a common verb or conjunctive. Thus 'bane 'babu'a 'baomana: baomana is either subordinate to 'babu'a or to 'bane.

Bane...

	E.	C.	
'bane	<u>"ba'du'tsi</u>	<u>'ba'ngola</u>	(they were seated (and) writing)
UP-STEP:	E.	H.	
'bane	<u>"ba'du'tsi</u>	<u>'basa'tso'te^lli</u>	(they were sitting, not caring)
patterns:	E.	I.	
'bane	<u>"ba'du'tsi</u>	<u>'basa'ma'mele</u>	(they were sitting inattentively)

### Verb - Nominal Relation:

Syntax relations between a verb and a succeeding nominal are as follows:

DOWN-STEP relation: When the verb is immediately followed by any of the following types of words, the verb occurs in Tone Pattern 2 of its tonal scatter, and the following word takes a lower key.

- (a) nta<sup>u</sup>'te/'re'ki'le 'pere ('pere - a basic word-form of (father has bought a horse) Category I.)
- (b) 'u're'ki'le yo'na 'yamadi (yo'na - C.II type 1.)  
(he has bought it of the blood)  
(he has bought a proper breed)
- (c) 'u're'ki'le 'ya'hau ('ya'hau - C.II. type 4)  
(he has bought yours)
- (d) 'u're'ki'le hla'bula (hla'bula - C.III. (a))  
(he bought it in summer)
- (e) li'tso'ho 'liro'be'hi'le suhle/ (suhle/- C.V. (Y))  
(the arm is broken completely)

Any type of word commencing in one of the following formatives will relate to a preceding verb in a down-step pattern (cf. inflected forms in each Category) :

'hu- (to, from, at, into, etc)

e.g. kimu'li'bi'si'tse 'hu'murena (I have directed him to the chief)

'tse- (of), i.e. concord element denoting possessive relation.  
e.g. ki're'ki'si'tse 'tse'murena (I have sold the chief's ones)

where 'hu'murena and 'tse'murena represent any word of whatever category which takes the formative hu- or tse- initially. occurs

Verb - nominal relation:

UP-STEP: The basic forms of Categories II, III, and V of the types not specified above normally follow verbs on the up-step pattern, e.g. e

li<sup>^</sup>tsiba "tsohle (^tsohle C II type 2)  
(you know everything) 'ba<sup>^</sup>tsiba<sup>^</sup>tsohle

<sup>^</sup>butsa "bau ('bau C II type 3)  
(ask those ones)

u're<sup>^</sup>kile "tseka'i? ('tsekai: C II type 6)  
(you have bought how many?)

ki'ru<sup>^</sup>mile "emu'hulu ('emuhulu CII type 6)  
(I have sent the elder one)

'ban'thu<sup>^</sup>metsi "e<sup>^</sup>thata ('e<sup>^</sup>thata C II type 7)  
(they have sent me a tough one)

'ban'thu<sup>^</sup>metsi "eno'n'neng ('enoh<sup>^</sup>neng CII type 8)  
(they have sent me a fat one)

'batsa'ma<sup>^</sup>ile ha'hulu (hahulu C III)  
(they have travelled much)

kifi<sup>^</sup>hlile "pili ('pili C III)  
(I arrived first)

(All words in Category III, except those listed under (1) and normally relate to a preceding verb on an up-step basis. Ideophones (Category V) relate to a preceding verb on the up-step basis only when they (ideophones) consist of an initial syllable of ~~the~~ high tone(s)).

Any words commencing in any of the regular inflectional formatives other than 'hu- (to/from/at) or 'tsa- (of) (the possessive concord) normally relate to a preceding verb on an up-step basis, e.g.

'u<sup>^</sup>bua "kabathu ('ka-+ C.1 word)  
(she talks about people)

'utsa'ma<sup>^</sup>ile "liruna ('li-+ C II type 1 word)  
(he travelled with us)

'uro<sup>^</sup>betsi "habu'hlu<sup>^</sup>ku ('ha-+ C I word)  
(he slept badly)

'u're<sup>^</sup>kile "tse-li'kgulu ('tse-+ C I word)  
(he has bought a hundred ones)

'uhla<sup>^</sup>bilwe "ki-kgo'mu ('ki-+ C I word)  
(he has been gored by a cow)



Interjectives, however, PART IV. syntax relations

with Ideophones and Interjectives (Categories V and VI)

repre. Ideophones and Interjectives have ~~extra-normal~~ features of sound, tone, duration and stress, which set them apart from normal words. For example: they have extra-normal sounds, e.g. whispered, voiceless words, as in nkhu! ( \_ ) (sigh of relief).

Ideophones (Category V).  
Extra-normal pitch: many Ideophones and Interjectives are said in a pitch which is much higher than the highest pitch the individual speaker reaches in normal speech, e.g. 'iu! ( \_ ) (said to starting a race cf. English Get set! Go!) This word may be pitched as high as a major seventh above the highest pitch the individual normally reaches.

Extra-normal duration: There are very short syllables, e.g. the first syllable in 'pšang! (said of people running into each other). The second syllable in this example is very long.

On account of these extra-normal features, Ideophones and Interjectives are written and tone-marked as other words, but the exclamation mark ! is regularly added to indicate that the symbols and letters should not be taken at face value.

Tonal Grouping: Many Ideophones and Interjectives are monosyllabic units. It is therefore difficult to classify them as high or low in tone since tone is relative. In the case of Ideophones it is possible to classify them tonally by comparing their tonal level with that of other words to which they are syntactically related in a sentence.

Interjectives, however, do not form syntax relations with other words. In the examples given below a graphic representation of the tonal Pattern is given since the other methods of tone-marking used here are dependent on speech laws which do not apply to Ideophones and Interjectives.

Ideophones (Category V).

Ideophones may be grouped in two main Tone Groups X and Y on the basis of the tonal level of the initial syllable and also on the basis of the kind of tonal transition to which they give rise in syntax relation with other words.

X - Tone Group

'po! (cold)	( — )	'twa! (white)	( \ )
'tu (quiet)	( — )	'bjaa (white)	( \ )
'ngo (empty)	( — )	'hlwii (snatch)	( \ )
'pʂang (clash)	( — )	'ʂwii (fast asleep)	( \ )
'thing (swerve)	( — )	'thuwee (forgotten)	( — \ )
'kgere (dry)	( — )	'tleree (red)	( — \ )
'nye!e (silent)	( — )		
'tlekelele	( — — — — )		

Generally, though not without exception, Ideophones of this Tone Group give rise to an up-step tonal transition in syntax relation with a preceding verb, e.g. kili<sup>^</sup>betsi "thuwee! (I have completely forgotten) or (I quite forgot).

Y - Tone Group.....

\* Y-Tone Group

ri (be even) ( _ )	tlu'le (jump) ( _ )
fi (lights out) ( _ )	ke'ni (enter) ( _ )
lai (flash) ( _ )	pho'su (plunge) ( _ )
lore (burnt out) ( _ )	kge'lu (turn off) ( _ )
suhle (broken) ( _ )	saa (scatter) ( _ )
lwaqu (jump) ( _ )	kokololo (calm down) ( - - - )

Ideophones of this Tone Group relate with preceding verbs on a down-step tonal transition. e.g.

li'tso'ho 'liro'be'hi'le suhle! (the arm is completely broken ---i.e. the bone)

In grouping Ideophones (as well as Interjectives) no attempt is made to distinguish sub-groups within the major Tone Groups X and Y. In the first place Ideophones do not ~~vary tonally~~ consist of more than one essential Tone Pattern although the speech tones vary so widely from one speech context to another. For instance, the tonal level of the last syllable of an ideophone such as tlu'le is not significant since ideophones do not give rise to tonal transitions with succeeding words. But since they occur in syntax relations with preceding words, it is necessary to group them tonally in order to be able to determine the kind of tone-step which occurs in such syntax relations. In the second place ideophones have such extreme features of length, tone, etc so that it is often difficult to decide the number of syllables, the tonal levels, etc. e.g. p̣sang! (clash!).

(Where the tone level of a monosyllabic ideophone is uncertain, it is usually ~~fixed~~ tested in syntax relation with a preceding verb. The occurrence of an up- or down-tone step decides its X-Y grouping.)

CATEGORY V (Ideophones)

Syntax:

IDEOPHONES IN RELATION TO SUCCEEDING WORDS:

- 1.(a) 'u'muswe'u 'twa! 'twa! 'twa!  
 (he is white, very white)
- 'dife^dile "tu! "tu! "tu!  
 (they are finished, completely)
- 'Yan'na 'yai'ba 'phu'tse!, 'phu'tse!, 'phutse!  
 (they went jump jump jump) e.g. sheep  
 jumping through an opening in  
 the hedge.
- pha'kwe 'yari tsu! 'hlwibi'bi!, 'tshiba 'tsa'ba 'tsaha^sana  
 (the hawk went dive! snatch! and left feathers flying) e.g.  
 a hawk swooping down and taking a  
 bird.
- 'lali^tuna 'ha 'li'tsamaya 'liri twai!, twai!, twai!  
 (when the big one walks he goes, slumph, slumph)
- (b) 'bari rau! 'kaufela  
 (they all, up!
- a'muri 'ghau! 'kaliutu  
 (he grabbed him by the leg)
- 'hari ^feela "nye'le! 'ha 'ki'kena  
 (there were just hush when I entered)
- 'yari tshobe! 'ka-muko'ting  
 (it dived into the hole)
- ari po'te! 'kapi'li^nyana  
 (he suddenly turned round the bend)  
 (he disappeared round the corner rather hurriedly)
- 'iitse "ha 'huthwi "iu! 'tsatluha  
 (when the signal off! was given, they started)
- 'a:kuri "thi ha'nyinya'ni  
 (please shift a little)

The examples in (a) show sequences of ideophones; the first two examples show repetition - usually the final ideophone has slightly more length than the preceding ones.

In the third example the ideophones are often said with varying length, so as to imitate the action - for instance two may be said in rapid succession while one is lengthened or shortened, to give the picture of the irregular way in which sheep would jump through a gap in the hedge. In the fourth example the ideophone tsu! has extra length illustrative of the swoop of an eagle or hawk from great height. The ideophones twai!, twai! are said slowly and deliberately, illustrating the slow, heavy, majestic gait of the big or great one.

Similarly in (b) the tone and length of the ideophones are imitative of the idea described, and this is in no way determined by any following words.

Strictly speaking then, in its tonetic and durative features the ideophone does not show syntax relation with following words.

#### CATEGORY V (IDEOPHONES)

##### SYNTAX: IDEOPHONES IN RELATION TO PRECEDING WORDS:

Ideophones are normally used in three ways: (1) As part of a verbal clause, with the verb ri in various tense forms. (2) After words of categories I, II, III and IV in their basic or inflected form. (3) Alone in an act of speech.

(1) Practically any ideophone may be employed along with the verb ri as follows:

(a) si<sup>h</sup>thunya "sari thu! (the gun  
the gun went bang)

'huri "po!  
(it is cold)

'hune 'huri "po....

Caten 'hune 'huri "po!  
(it was cold)

Syntax  
2. 'hui'tse "tu!  
(it has become silent)

relat a'muri 'tlere!  
(he struck him bash! )

(b) si^thunya "salla 'sari thu!  
(the gun barked, went bang!)

'hune "hu'ba'ta 'huri "po!  
(it was cold, was freezing)

(c) 'u'muswe'u 'uri "twa!  
(he is white, is white)

ma'si'mu 'a'maya<sup>t</sup>'la 'ari ta'la!  
(the fields are green, are green)

(d) muthu "ya-mutshu 'ya-'ring tshu!  
(a black person, who is pitch-black)

muthu 'ya-'ring tshu!  
(a person who is pitch-black)

In all cases of the above type the ideophone is syntactically related to the verb ri in one of its various tense-forms, and the rules governing the relation as to tonal pattern are as stated for verb-ideophone syntax relations (see P!34 example p.33).

The verb ri in this usage does not convey any independent meaning - its sole function is to support the ideophone and to relate it to the rest of the sentence. Sometimes another word occurs between the verb ri and the ideophone, e.g. 'hui'tse^feela 'nye'le cf. 'hui'tse "nye'le^feela (both meaning it is just silent). In such cases the tonal relation of the ideophone is to the intervening word rather than to the verb.

Category V (Ideophones)

the pattern in a non-verbal and ideophone relation;

Syntax:

verbs, however, form down-step transitions only when the following ideophone is of the X-tone group, and also where the verb is of a tense-form incapable of up-step transitions. The examples in (c) are all up-step transition

(a) 'u'muswe'y 'twa.!

(he is white, white) - (the latter is of the X-tone

group, and muthu "e-mu'fu'be'du 'tlere.!

(a red person red)

up-step transitions). The ideophone, however, is capable

'baba'ra'ru 'qha.!

in many instances the pattern relation by

'ba<sup>^</sup>ema 'kau'fe'la ri.!

(they halted simultaneously)

3. Ideophones may be used alone in an act of speech, e.g.

alla mi'o'kgo qhi.!

lai. (des. (he cried tears, drip!) light, e.g. a javala

hurled into space)

(b) a'tlu'la lwaqu.!

(he jumped hop!)

Or a sequence of ideophones may be used, e.g.

ntlu 'i'tshi'le lore.!

lai. (the house is burnt to ashes)

li'sa'po 'liro'be'hi'le suhle.!

(the bone is broken completely)

(rustling, appear trot-trot, dive-in (hole))

(c) 'dife<sup>^</sup>dile "tu.!

(they are finished completely)

ba'tla-<sup>^</sup>thula "tu.!

(they will be silent completely)

pa'tsi 'io<sup>^</sup>m<sup>^</sup>me "kge're.!

(the wood is dry completely)

kili<sup>^</sup>betsi "thue.!

(I have forgotten completely) (or *thuwee!*)

In the examples in (a) and (b) the ideophone and the preceding word form a down-step transition: this is invariably

the pattern in a non-verbal and ideophone relation; verbs, however, form down-step transitions only when the following ideophone is of the <sup>Y</sup>X-tone group, and also where the verb is of a tense-form incapable of up-step transitions. The examples in (c) are all up-step transition between the verb and ideophone - (the latter is of the X-tone group, and the verb is not in a tense-form incapable of up-step transitions). The ideophone, however, is capable in many instances of upsetting the pattern relation by going into tonal levels which are outside the normal range.

3. Ideophones may be used alone in an act of speech, e.g.

lai! (descriptive of a streak of light, e.g. a javelin hurled into space)

tsipa! (e.g. a javelin landing upright)

Or a sequence of ideophones may be used, e.g.

lai! twatla! (flash! detonation! said of lightning and thunder)

kgwasu-kgwasu, <sup>u'</sup>ph<sup>u'</sup>tse, náka-náka, tshóbe!  
 (rustling, appear trot-trot, dive-in (hole))

phu'tse!

In ideophones the vowel in the final syllable is usually high.

Y - Tone Group

ri (be even,) ( _ )	tlu'le (jump) ( _ - )
fi (lights off) ( _ )	ke'ni (enter) ( _ - )
lai (flash) ( _ )	pho'su (plunge) ( _ - )
lore (burnt out) ( _ _ )	po'te (turning to a corner) ( _ - )
suhle (broken) ( _ _ )	saa (scatter) ( _ )
lwaqu (jump) ( _ _ )	

Ideophones in this Tone Group relate with a preceding verb on a down-step basis, e.g. li'tso'ho 'liro'be'hi'le suhle!

Interjectives:

The tonal patterns of Interjectives vary to some extent. The variation, however, is not governed by any regular grammatical rules; it is largely determined by subjective factors such as feelings of excitement, surprise, pleasure, anger, etc. Consequently a syllable of high tone may be heard as one of low tone on another occasion e.g. 'e! e! (yes? yes). The following examples are shown with their Tone Pattern which is more common than the others:

t'she'e (no) ( _ - )	t'she'e-bo (no) ( _ - - )
e'u (is that so?) ( _ - )	^ 'e-'e (no, don't) ( - - )
ee (yes) ( _ ) or ( - )	'hele'le (oh) ( - - - ) or ( - - - )

In Ideophones and Interjectives length is generally on the final syllable; rarely on the penultimate syllable.

CONCLUSION

It will have been observed in the body of this thesis that the role of tone is studied on different planes, as follows:

1. The Lexical role of tone: 1.1 Tone determines the lexical inter relationship of words. 1.2. Tone distinguishes compound words from syntax relations consisting of corresponding constituents. 1.3. Tone may be regarded as a third dimension in distinguishing one word from another --- the other two dimensions being consonants and vowels.

2. The Inflectional role of tone.

3. The Syntactical role of tone: 3.1. Tone indicates the ~~xx~~ junction between words in syntax relation; it can therefore be used in determining the extent or size of the individual word in a sentence. 3.2. Tone distinguished kinds of syntax relation.

This method of handling tone does not mean that it is possible to distinguish tones into lexical tones, inflectional or syntactical tones. Rather, it means that the same tones are examined on different planes and their role on each plane described separately in so far as that can be done.

1. On the Lexical plane tone plays a part in the following ways:

1.1. It indicates the lexical inter relationship of words of various categories on a basis such as the one illustrated here: The following series of words are compared,

'bissa (call), 'bi<sup>^</sup>letsa (invite, appeal to), 'i'pi<sup>^</sup>letsa (to appeal), boi'pi<sup>^</sup>letso (an appeal), li'bitso (name), <sup>^</sup>pi<sup>^</sup>tso (assembly), m<sup>^</sup>mitsa (attraction), 'bitso (namesake)

By abstracting the root 'Bj'L and using it as a common reference these words can be compared and their tonal inter relationship established. In this such a comparison it is found that all words in which the common root 'Bj'L occurs as the initial part of the stem fall into the same X-Y tone group --- the tone group of the common root. Thus 'BjTsa, 'Bj<sup>^</sup>Letsa, 'i'Pi<sup>^</sup>Letsa, li'BjTso, <sup>^</sup>PiTso, m<sup>^</sup>MiTsa, 'BjTso (where the part corresponding to the common root is shown in upper case letters, and the stem as a whole is shown by underlining) all fall under tone group X. The initial element -i- in 'i'Pi<sup>^</sup>Letsa is the reflexive prefix; not part of the stem. i.e. this is an instance of the verb-stem 'Bj<sup>^</sup>Letsa occurring in conjunction with a prefixal element. In the noun boi'Pi<sup>^</sup>Letso where the stem -i'Pi<sup>^</sup>Letso commences in an element -i- (which does not correspond to the common root 'Bj'L) the X-Y tonal grouping is determined by the tonal level of this element -i-, not by the common root 'Bj'L.

As these examples show, words related in this way vary within certain limits in their over-all tonal patterns. Such variation is unpredictable --- there is no apparent reason why ~~text~~ 'BjTso and <sup>^</sup>PiTso should differ in their tonal patterns. The inference that can be drawn from this

In examples such as these where the phonological

comparison is that lexically related words, as illustrated above, fall into the same X-Y tonal grouping provided that the common root occurs ~~xxx~~ initially in their stems.

1.2. The second observation which may be made about the role of tone on this plane is that in many cases it distinguishes compounds from corresponding syntax relations.

For instance, compare the compound noun tla'di-muthwana (lightning-man) [ \_ - ] [ - \_ \_ ] with the ~~xxxxxx~~ syntax relation tla'di muthwana (lightning, man) [ \_ - ] [ \_ \_ \_ ]

The up-step tonal transition between the two constituents of the compound and the tonal pattern of the second constituent distinguish the compound word-unit sharply from the syntax relation consisting of the two nouns tla'di and muthwana. In most instances, however, there are usually other features apart from tone by which compounds are distinguished from corresponding syntax relations (See pp 42-51).

1.3. The third observation on this plane is that tone plays a part in distinguishing words. It is a third dimension, the other two dimensions being consonants and vowels. For instance the nouns tlha'ku (hoof) and 'tlhaku (grain) do not only differ phonologically (in respect of the final vowel) but also differ in their tonal patterns. In a few instances tone is the only distinguishing factor (apart from meaning). e.g. mata'ta (haste), ma^tata (skin blankets), matata (wild ducks); 'bua (speak), bua (flay), etc.

In examples such as these where the phonological

difference is either very slight (as between tlha'ku and 'tlhaku) or does not occur at all, the tonal difference naturally stands out more strikingly. (The tendency on the part of many grammarians is to regard tone in such cases as "significant" and to regard it as merely "characteristic" if not ignore it altogether in other cases where it is not the only distinguishing factor. This tendency is misleading and inconsistent. It would be more consistent if the same classification were made of consonants and vowels under similar circumstances).

But even where words differ widely in their phonological shape, as muthu and mu'fo, or murena and mu'suthu, tone is also a distinguishing characteristic which should not be ignored.

In regarding tone as a third dimension more or less on a par with consonants and vowels, it is essential to consider the complete tonal scatter of a word. This point is more fully brought <sup>out</sup> later on in this summary, but may be summed up here as follows: When comparing the tonal features of words (e.g. 'bitso and pitso) the comparison must be made on all planes (lexical, inflectional and syntactical planes) and in all kinds of ~~contexts~~ contexts (Cf. p 69 and p 98) If the comparison were confined to one particular context some words would occur in identical tonal patterns whereas the same words would be quite different in their tone patterns or tonal behaviour in other situations. which clearly marks

2. On the Inflectional plane two kinds of inflectional elements are considered; (a) those which occur as integral parts of a word, (b) those which relate with words on a ~~more or less~~ syntactical basis. The comparison below shows the differences ~~in~~ the tonal pattern of the basic word (in the 1st column) and the tonal patterns of the same word in conjunction with inflectional elements of the first kind (2nd column) and the second kind (3rd column).

<u>Basic word</u>	<u>with element as in (a)</u>	<u>with element as in (b)</u>
<u>sidiba</u> [ - - - ] (fountain)	'li' <u>sidiba</u> [ - - - ] (and the fountain)	'ki- <u>sidiba</u> [ - ] [ - - ] (it is a fountain)
	<u>sidi'</u> beng [ - - - ] (at the fountain)	'ki- <u>sidi</u> ba-'hle [ - ] [ - - - ] [ - ] (it is a fountain)
<u>pitso</u> [ - - ] (assembly)	'li' <u>pitso</u> [ - - ] (and the assembly)	'ki- <u>pitso</u> [ - ] [ - - ] (it is the assembly)
	' <u>pitso</u> ng [ - - ] (at the assembly)	'ki- <u>pitso</u> -'hle [ - ] [ - - ] [ - ] (it is an assembly)

The tonal patterns of sidiba and pitso as they occur in the second column are appreciably different from those of the corresponding basic forms (in the first column). The inflectional elements in this 2nd column determine the tonal pattern of the words <sup>in</sup> which they occur. In the 3rd column the tonal patterns of sidiba and pitso do not differ from those of the corresponding basic forms. There is also the occurrence of the tone-step which clearly marks

the junction between the noun and the inflectional elements. The tonal pattern of the noun and the tonal transition between it and the inflectional elements are as they normally occur in ordinary syntax relations in most cases. The reasons why instances such as these are treated as inflections rather than as ordinary syntax relations are as follows:

First, ~~for various reasons~~\* the inflectional elements\* cannot be regarded as self-standing words or free forms. Secondly, there are a few instances where words in conjunction with these inflectional elements occur in tone patterns which belong to inflectional situations rather than to syntax situations. (Cf. the examples under 2.1.3 on pp 62-63).

3. On the plane of Syntax tone plays a part in two ways:

3.1. It determines kinds of syntax relation. The tonal pattern of individual words in some cases, and the kind of tonal transition which occurs at the junction between words in a sentence indicate the kind of syntax relation. For instance, compare the sentences 'ki-ba'na "baba'su'thu 'bau? (Are those children of Basotho? i.e. are those Basotho children?) ~~with~~ and 'ki-ba'na "baba^suthu "bau? (Are they children of

---

\* ~~One of the reasons why~~ Such inflectional elements are not treated as free word-forms ~~is that~~ <sup>because</sup> they are monosyllables consisting of one tone only. Except in the realm of Ideophones and Interjectives, there are no instances in speech of free word-forms occurring in tone patterns ~~in~~ of less than two tones or the equivalent of two tones. Even monosyllabic verbs in situations where verbs normally occur alone either occur with an extra syllable -i- initially, e.g. i'ja ( \_ - ) (eat), or with a long vowel finally, e.g. ja'a an extra vowel finally, e.g. ja'a ( \_ - ) (eat), both J-Form.

here  
by  
my  
own  
of the  
e.g.  
it  
has

e.g.

the  
inflection

The following comparison of nouns taken at random (those Basotho?). In the first example the tonal pattern of 'baba'suthu ends as H.H and an a down-step tonal transition occurs between it and the next word 'bau. This shows that ~~that~~ the concord agreement of 'bau is with ~~the~~ ba'na. The relation of 'baba'su'thu and 'bau therefore is not on a basis of direct concord agreement. Cf. 'ki-kgo'mu "tsaba'su'thu 'tseu? (Are those the cattle of the Basotho?). In the second example the tone pattern of 'baba^suthu ends H.M and an up-step tonal transition occurs between it and the following word, 'bau. This indicates direct concord agreement between 'baba^suthu and 'bau. Cf.

'ki-kgo'mu "tsaba^suthu "bau? (Are they cattle of those Basotho?)  
 (on the trees)

3.2. This feature of tonal transition is made use of in determining the extent of individual words in sentences.

In any sentence, therefore, the part occurring between two tone-steps corresponds to a word unit (except where, for <sup>the reason stated in footnote on p 150</sup> ~~various reasons~~ such unit cannot be treated as a word ).

4. Verbs, unlike nominal words, have to be considered on yet another plane. This concerns the part tone plays in determining various Tense-Forms. The classification of verbs into Tense-Form (see pp 97 - 117) is mainly based on tone.

Ideophones and Interjectives, as may be seen from the body of this thesis, do not belong to the same tonal system to which other words belong. It has been found convenient therefore, to treat them separately.

h. h.

h. m.

e.g.

the detbank in inflection

table

The following comparison of nouns taken at random illustrates the method of comparison: described on page 69. The following comparisons may be

	Context 1.	Context 2.	Context 3.
<b>Basic form:</b> <u>pi'tsa</u> (pot)	[ - - ]	[ - - ]	[ - - ]
<b>Inflected forms:</b> <u>'lipit<sup>h</sup>sa</u> (and a pot)	[ - - - ]	[ - - - ]	[ - - - ]
<u>pi'tseng</u> (in the pot)	[ - - - ]	[ - - - ]	[ - - - ]
<b>Basic:</b> <u>si'fate</u> (tree)	[ - - ]	[ - - ]	[ - - ]
<b>Inflected:</b> <u>'lisi'fate</u> (and the tree)	[ - - - ]	[ - - - ]	[ - - - ]
<u>si'fa'teng</u> (on the tree)	[ - - - ]	[ - - - ]	[ - - - ]
<b>Basic:</b> <u>ma<sup>h</sup>tata</u> (skins...)	[ - - - ]	[ - - - ]	[ - - - ]
<b>Inflected:</b> <u>'lima<sup>h</sup>tata</u> (and skins...)	[ - - - ]	[ - - - ]	[ - - - ]
<u>ma'tateng</u> (on the skins)	[ - - - ]	[ - - - ]	[ - - - ]
<b>Basic:</b> <u>matata</u> (ducks)	[ - - - ]	[ - - - ]	[ - - - ]
<u>sidiba</u> (well)	[ - - - ]	[ - - - ]	[ - - - ]
<b>Inflected:</b> <u>'limatata</u> (and ducks)	[ - - - ]	[ - - - ]	[ - - - ]
<u>'li'sidiba</u> <u>matateng</u> (among ducks)	[ - - - ]	[ - - - ]	[ - - - ]
<u>sidi'beng</u> (in the well)	[ - - - ]	[ - - - ]	[ - - - ]

This table shows the tonal patterns of each basic and inflected noun, for each of the three kinds of contexts described on page 69. The following comparisons may be made from this table:

Lexical: A lexical comparison is made by comparing the tonal patterns of the basic forms in each context (read vertically). e.g. the tonal difference between si'fate and ma^tata is indicated by the difference between the tonal patterns of these words in each context. (It is not enough to select one of the ~~the~~ three contexts and compare the words in that context only. For instance in context 3 these two words have identical tonal patterns, and yet when the tonal patterns are considered in all contexts it is obvious that these two words are tonally distinct).

Inflectional: On the inflectional plane the tonal behaviour of each noun is shown by comparing the tonal patterns of the basic form (e.g. ma^tata) with those of its inflected forms (e.g. 'lima^tata, ma'tateng). Here too the comparison is made in each context. Similarly, the tonal difference between ~~x~~ words (e.g. si'fate and ma^tata) on this plane is shown by comparing their inflected forms in each context (e.g. compare 'lisi'fate with 'lima^tata, and si'fa'teng with ma'tateng in each context).

Syntactical: Tonal comparisons on the plane of syntax are made by comparing the complete scatter of tonal patterns (shown horizontally against each word form) of one word with that of the other. For instance, in comparing si'fate and

and ma^tata on this plane, their tonal patterns are set out as follows:

	<u>Context 1.</u>	<u>Context 2.</u>	<u>Context 3.</u>
<u>si'fate</u>	[_ - -]	[_ - -]	[_ - -]
<u>ma^tata</u>	[_ - -]	[_ - -]	[_ - -]

In the same way the inflected forms are compared, 'lisi'fate with 'lima^tata, si'fa'teng with ma'tateng.

(Here too, although one horizontal series of tonal patterns is compared with another, it is essential that the tonal patterns in each vertical column should belong to the same context).

It may be inferred from the illustration above that before any two words can be described as tonally identical their tonal patterns would have to be identical on all planes and in every context. The nouns matata and sidiba in the table above are an example of two words which are tonally identical on all three planes and in all contexts, except in one instance on the inflectional plane; i.e. when they occur in conjunction with the inflectional suffix -ng. (Cf. section 2.2.1. on pp 64-65). Such instances show that in making a complete tonal comparison of words it may be necessary to consider the tonal behaviour of words as they occur in conjunction with each individual element within the same plane. (For most purposes, however, the various inflectional elements are classified into groups; and the tonal reaction of a given ~~xxxx~~ word is usually the same with all elements in the same group. Cf. pp 61-66).

The method of tonal comparison illustrated here also applies to words of other categories. To a large extent the classification of verbs into Tense-Forms is based on a similar comparison.

The special orthography adopted in this thesis is based on the one suggested by Dr. A. P. Tucker in "Sotho-Nguni Orthography and Tone-Marking" (1951). As this publication fully indicates the main features of the suggested orthography, it will be necessary to indicate here only the points in which the orthography of this thesis differs from Dr. Tucker's suggested orthography.

Vowels: The vowels *i* and *u* are suggested (by Dr. Tucker) and regularly written in this thesis as *i* and *u*.

Consonants and semi-vowels: Since Dr. Tucker makes any significant distinction between the affricate, suggested as *kx*, *kgh*, and the fricative, suggested as *q*, the digraph *kq* is used here for both the affricate and the fricative sounds (i.e. velar affricate and velar fricative).

In tone-marking, however, there is one major difference between the method of this thesis and the one used by Dr. Tucker in "Sotho-Nguni Orthography and Tone-Marking". In the latter's method a sequence consisting of a high-falling tone followed by a low tone is distinguished by the grave accent'. Otherwise a high tone is marked by a vertical stroke '. Unmarked syllables are taken as having mid tone which may be realized as a low tone according to specific laws

A P P E N D I X I.

(Orthography. (See p 5)

The special orthography adopted in this thesis is based on the one suggested by Dr. A.N. Tucker in "Sotho-Nguni Orthography and Tone-Marking" (1949). As this publication fully indicates the main features of the suggested orthography, it will be necessary to indicate here only the points in which the orthography of this thesis differs from Dr Tucker's suggested orthography.

Vowels: The close vowels for which symbols i or i<sup>h</sup>; u or u<sup>h</sup> are suggested (by Dr. Tucker) are regularly written in this thesis as i and u.

Consonants and semi-vowels: Since SS does not make any significant distinction between the affricate, suggested as kph, kgh, and the fricative, suggested as ɣ, g, the digraph kg is used here for both the affricate and the fricative sounds (i.e. velar affricate and velar fricative).

In tone-marking, however, there is one major difference between the method of this thesis and the one used by Dr Tucker in "Sotho-Nguni Orthography and Tone-Marking". In the latter's method a sequence consisting of a high-falling tone followed by a low tone is distinguished by the grave accent ` . Otherwise a high tone is marked by a vertical stroke ' . Unmarked syllables are taken as having mid tone which may be realised as a low tone according to specific laws.

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A P P E N D I X II.

The first real attempts to analyse Sotho tones were made by Professor Daniel Jones in conjunction with Mr Sol. T. Plaatje. In "A Secwana Reader" Professor Jones was able to mark tones in the written texts in such a way that a reader with average knowledge of phonetic and tonetic symbols could read the language with accuracy.

He recognises six essential tones: 1. A high level tone. 2. A lowered variety of the high-level tone. 3. A mid level tone. 4. A low-level tone. 5. A high-falling tone. 6. A low-falling tone.

In the book "A Secwana Reader" and in "Tones of Sechuana Nouns" both the high-falling tone and the low-falling tone occur on syllables that are also marked as long. This fact seems to suggest that falling tones are not essentially different from the equivalent level tones.

Dr Tucker in "A Comparative Phonetics of the Suto-Chuana Group of Bantu Languages" follows more or less the same method: he recognises three level tones, namely, high level, mid level and low level; two falling tones, high and mid, and two circumflex tones, high and mid. Dr Tucker went a step further and was able to state the general principles which are known today regarding the tonal rules of Sotho.

(Cf "Suggested Sotho-Nguni Orthography and Tone Marking" where some of these principles have been applied.).

Both Professor Jones and Dr Tucker, as well as others, seem to feel that there should be a simpler method of describing tone other than on a basis of three or more tone levels.

TABLE I. (showing class concords).

C.II-1		C.II-4		8			9	
		(i)	(ii)	(iii)				
1st person Sing.	n'na (I)	-ka/	-na/	-osu	(ki	( <sup>o</sup> ki	ka	N
"	Plur. ru'na (we)				(n	( <sup>o</sup> n		
2nd Person Sing.	w'na (you)	- <u>ba</u> /	- <u>nu</u>		ri	<sup>o</sup> ri	ra	ri
"	Plur. lu'na (you)				u	<sup>o</sup> u	wa	u
					li	<sup>o</sup> li	la	li

C.I.	C.II							(i)	(ii)	(iii)	
	1	2	3	4	5	6	7				
Class 1 muthu (person)	yo'na <i>(he, him, she, her)</i>	-	'you <i>(that)</i>	'wa'hai <i>(of him)</i>	u'fi/mung <i>(which) (what sex?)</i>	'e-mutle <i>(fine one)</i>	'ya-nole <i>(gentle one)</i>	'u	'a	'a	mu
1a n'no (mother)				'wa'bo							
2 bathu (people)	bo'na	<sup>^</sup> bohle <i>(all, everyone)</i>	'bau	'ba	ba'fi	'ba-batle	'ba-'nole	'ba	'ba	'ba	ba
2a 'bo-omo (workers)											
3 mutsi (water)	o'na	<sup>^</sup> ohle	oo	'wa	u'fi	'o-mu'hulu	'o-'thata	'u	'u	'u	u
4 mi'futa (kinds)	yo'na	<sup>^</sup> yehle	'you	'ya	i'fi	'e-mi'hulu	'e-'thata	'i	'i	'ya	i
5 li'fu (death, disease)	lo'na	<sup>^</sup> lehle	'leu	'la	li'fi	'le-li'bi	'le-'thata	'li	'li	'la	li
6 matlu (houses)	o'na	<sup>^</sup> ohle	'au	'a	a'fi	'a-matle	'a-'thata	'a	'a	'a	a
7 si'jo (kind of food)	so'na	<sup>^</sup> sehle	'seu	'sa	si'fi	'se-sitlo	'se-'thata	'si	'si	'sa	si
9 n'tho (thing)	yo'na	<sup>^</sup> yehle	'you	'ya	i'fi	'e-ntle	'e-'thata	'i	'i	'ya	i
.8) di'jo (food)	tso'na	<sup>^</sup> tsehle	'tseu	'tse	di'fi	'tse-ntle	'tse-'thata	'di	'di	'tse	di
10) din'tho (things)											
14 buthu (humanity, personality)	bo'na	<sup>^</sup> bohle	'boo	'ba	bu'fi	'bo-butle	'bo-'nole	'bu	'bu	'ba	bu
15 huwa (6 fall)	ho'na	<sup>^</sup> hohle	'hoo	'ha	hu'fi	'ho-hu'bi	'ho-'thata	'hu	'hu	'ha	hu

The 1st column consists of words of Category I (Nouns & Nominative-verbs)

Columns 2 - 7 consist of words of Category II (the number at the top of each column refers to the sub-category or type)

Columns 8 ((i) (ii) (iii)) consist of subject concords.

*Int. why three of them?*

Column 9 consists of object concords.

cf p. 61 cf. p 62 of p 63

**TABLE II (Showing Inflectional elements of Nominals)**

	C.I	C. II-1	C. II-2	C. II-3	C. II-4	C. II-5	C. II-6	C. III
'li-	bathu (people)	bo'na	bohle	'bau	'bakka	ba'fi	'baba'bi	'hule
'ki-	"	"	"	"	"	"	"	"
haꞑ'si	"	"	"	"	"	"	"	"
'di	matla (strength, strong)	-	-	-	-	-	-	"
haꞑ'di	"	-	-	-	-	-	-	"
ri-	bathu	"	"	"	"	"	"	"
haꞑ'ri-	"	"	"	"	"	"	"	"
'ka-	"	"	"	"	"	"	"	teng
'tse-	"	"	"	"	"	"	"	"
'hu-	"	"	"	"	"	"	"	"
'tse-	matla	-	-	-	-	-	-	"
na-	mu'nati (niece)							
'bo-	nta'te (father)							
-ng (suffix)	muri'ti ng (in the shade)							

## NOTES AND COMMENTS

- 1) Cf. "The Phonetic and Tonal Structure of Kikuyu" by L. E. Armstrong
- 2) Cf. Tone-marking in Eudemann's Sotho Wörterbuch.
- 3) See account in appendix II.
- 4) See page 12
- 5) Ideophones and Interjectives have peculiar tonal, phonetic and durative features (See pp 136-144). This fact is indicated by an exclamation mark ! written after the Ideophone or Interjective. But even where this mark is omitted the reference "Ideophone" or "Interjective" should be regarded as indication that in these two categories (I and VI) tone marks and orthographic symbols should not simply be taken at face value; reference should be made to the description given on pp 136-144.
- 6) In words like hlooko where a consonant is followed by two identical vowels, a circumflex before ~~the~~ such consonant implies that the consonant and the two vowels together constitute one long syllable with gliding tone.
- 7) By Ideophonic features is meant the peculiar tones, phones, lengths or stress which are characteristic of Ideophones and Interjectives, as described on pages 136-144. Demonstratives (Category II-3) possess some of these Ideophonic characteristics. (See pp 77-79).
- 8) In this particular instance the word similar is used to describe contexts in which the same kind of tonal transitions occur. For instance all contexts in which a noun (C.I.) is in syntax relation with a succeeding word gives rise to a down-step tonal transition are similar contexts, as far as the noun is concerned.
- 9) The term key is used here more or less in the musical sense to denote the opening tone from which subsequent tones take their level.
- 10) Free-forms or free word-forms can be recognised by the following main features: (a) they belong to a grammatical series and possess the characteristics of form and behaviour of this series. (Cf. the difference in behaviour of the stem -osudimu in the noun bumudimu and the free word-form usudimu - described on page 40).

NOTES AND COMMENTS (Continued)

(6)

A free form may be substituted by another free form of its series in a given syntax context. (This feature by itself does not establish a unit as a free form, since there are certain elements and particles which may be substituted by a free form). (c) A free form, in most instances, is capable of occurring alone in an act of speech.

There are various other criteria of free forms. For instance it gives rise to a tone-step when it occurs in syntax relation with other words. But this feature too is not confined to free forms, as may be seen from pp 62-66).

11) These categories are sub-divided into minor categories (indicated by the number 1, 2, 3 etc) This sub-division is based on minor differences in form and behaviour. For instance the behaviour of words on the inflectional plane differs from one sub-category to another. To a large extent, however, this sub-division is made for convenience — it is more convenient to describe each type of word separately.

13) The stem may be described as the part of the word that remains after all prefixal elements are removed. In verbs there is always a grammatical suffix (cf tense-suffix) which occurs as the end-part of the stem. The radical in verbs is arrived at by removing this suffix from the verb-stem.

14) Dr H. H. Jucker in his work on Sotho tonetics (see Appendix II) discovered that on the plane of syntax it is only the last two syllables in a word which vary their tonal level. He then based his tonal grouping of words on the tonal pattern described by the last two syllables of the word as it is when it occurs in a particular context. In this way Dr Jucker was able to group all nouns in four tone groups. (cf Professor Daniel Jones's 41 tone groups, based on the over-all tonal pattern of nouns).

The second or sub-grouping of words in this thesis is largely based on Dr Jucker's method — i.e. grouping words on the basis of their end pattern (See p 70). There is this difference, however: According to Dr Jucker's method any two nouns which happen to have the same end-pattern in his basic context (i.e. when followed by the subject concord) would fall in the same tone group even if they are different in other contexts.

For instance mu'simaini with a pattern L.H.L.H in the basic context, and lisa'ka, with a pattern L.L.H in the basic context would be grouped together since they both have the end pattern L.H in the basic context. The fact that in another context (eg. zero relation) these words have an end pattern L.L and L.H respectively does not alter the grouping. (NB Dr Tucker suggests sub-grouping to indicate this difference).

In the present thesis on the other hand, words are grouped together only if they have the same end-patterns in all contexts.

The distinction into X and Y tone groups was recognized by Dr Tucker but was not made a basis for tonal grouping.

For instance he points out that the class prefix of nouns is realized as a high tone when the initial syllable of the stem, immediately after the class prefix, has low tone. This happens when certain elements are prefixed. Since tone was not the main subject of his thesis he did not go far enough to be able to describe the significance of this X.Y grouping from the lexical point of view.

15) Tone Group IV is sub-divided into Tone Groups IV-1 and IV-2. Typical nominal words of Tone Group IV ~~have~~ are of the Pattern mu'sithonyana L.H.H.L.L, and mu'sajana L.H.L.L in all contexts of syntax. These are grouped as IV-1 (see p 54). A few words as mu'simaini L.H.L.L in context 1, L.H.L.H in contexts 2 and 3 are grouped as IV-2. The reason for grouping them in IV rather than as a sub-group of I is that it is not possible to draw a sharp dividing between IV-1 and IV-2. Many nouns in IV behave either as IV-1 or as IV-2. Quite often the same speaker is inconsistent in his grouping of such words.

16 On the lexical plane the instances of the common root X<sub>y</sub> occurring as a noun-stem X<sub>m</sub> (pp 52-54) show that basically SS has only two tone levels: a low tone and a high tone. There are many instances to show that a sequence of a high tone and a low tone is generally realized as a Pattern high-mid. Unfortunately it is not clear so far what circumstances govern this phenomenon. It is necessary at the present stage to recognize a mid tone as an essential tone. Perhaps further investigation will show that every mid tone can be

