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THE TONE SEQUENCES OF THE POTENTIAL FORM

IN ZULU AND XHOSA

J. A. Louw, Pretoria

Introduction*

The study of the tonal grammar of the Bantu languages is gaining increasing importance. N.J. van Warmelo was one of the first linguists who gave his serious attention to the tonology of a South African Bantu language in a systematic manner. He indicated the tonemes of Venda as being high, middle and low. We accept that the Bantu languages have basically only two tonemes, but this does not preclude that there may be morphotonemic variants of either high or low. For that matter, it may be necessary to accept a middle tone as a morphotonemic variant for low in Southern Sotho and Tswana, cf.:

mòsádi (woman)

mòsádi (he who remains behind)

One is tempted to accept h (high) m (middle) as a synchronic correlation of f (falling) l (low) on the dissyllabic stems of nouns and verbs in the Nguni languages, cf.

Z (Zulu) *úm̄fāzi* (woman)

X (Xhosa) *um̄fāzi*⁺

It has already been well established that tone distinctions in certain Bantu languages are actually reflexes of different vowel quantities in the proto-language.¹ fl is usually in Nguni the reflex of a short quantity and hl of a long one.

Care must be taken not to over-simplify the origins of fl and hl in Nguni, because tone neutralization may occur. In a tone study of Xhosa it is pointed out that the sequence fl is found in a syntagmatic string according to the distribution of the formatives (monemes)² as prefixal, radical, extension and suffixal or terminative. When the falling tone occurs on the initial syllable of a syntagmatic string it must be analyzed as a clustering of the hl tonemes, cf.: Z & X:

/sáàlimá/ *sálimá* (We ploughed) – remote past tense of the indicative mood

/óònyòkò/ *ònyòkò* (Your mothers) – cl. 2(a)

/únwélè/ *únwélè* (hair) – cl. 11

... *úkùbá*[#] /*sìbòm vú*/ *sìbòm vú* (. . .if it is red) – a form of the copulative in the present tense of the participial mood.

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+ The unmarked *u-* can be either high or low according to the dialect of the speaker.

The following tone sequences are possible, viz. *úkùbá* when used as introductory syntagma, also *úkùbá* in the idiolect of some speakers, and *úkùbá* (to be or to become), cf.: *úkùbá yindòdà* (to become a man).

1. Lukas, J. ed.: Meeussen, A.E.: *Tonunterschiede als Reflexe van Quantitätsunterschieden im Shambala*, vide *Afrikanistische Studien*, p. 154 et seqq. Akademie Verlag, Berlin 1955. Guthrie, Malcolm: *Comparative Bantu*, Gregg, London, 1967.

2. Louw, J.A.: *The Intonation of the Sentence and its Constituent Parts in Xhosa and Tsonga*, (Report of a Research made for National Council of Social Research), Pretoria, 1968.

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From the above it is clear that the polytonematic analysis of the falling tone as *hl* can be correlated with the contraction of two formatives into one syllable. The remote past tense is quite simple and needs no further explanations. The /óò-/ of class 2(a) can be explained in terms of the uncontracted forms which are still used by many Zulus, e.g. /ábò-/ (the tone sequence assumes that the stem is dissyllabic).

The /s'í-/ is probably a contraction of the SC (subject concord) and a copulative stem, cf. the use of *-le* in Sotho. /ú-/ is the contraction of *úú-* before *hl*, *hh* and *fl*.

This prefixal *hl* which is realized tonetically as a falling tone reacts completely differently from the falling tone on the penult of a syntagmatic string with a dissyllabic stem, or the falling tone which may occur on the penult when extensions are added, e.g. Z & X.

úbóná' ínkómó énkúlú (He sees the big beast)

úbóná ínkómó énkúlú éntándú (He sees the big brown beast)

/sáálimísáná/ sálimísáná (We helped each other to plough)

/sáálimísáná/ sálimísáná éntábèni (We helped each other to plough on the mountain)

fl has become *hh* in the second example and *lh* in the last. This is the regular rule in Zulu and Xhosa when *fl* should occur in the above distributions. However, a clustering of *hl*, which is realized as falling, does not react in this manner. We have already seen that the clustered *hl* occurs in an initial position. When it is found on a terminating syllable it stays unchanged no matter what kind of tone sequence may follow on it, cf.:

/úbònè/ úbònè índlú (You have seen a house)

The /-è/ of the short perfect is analyzed in the same manner as the other falling tones which are not found on a root or an extended root. On this basis it is accepted that the only real morphotonemic replacement is the falling tones which are found on the penult of a syntagmatic string. But with the important observation added, that the falling morphotoneme on the penult can only be followed by a low toneme.

A one-to-one correspondence can be found in most of the tone sequences given so far for Zulu and Xhosa. This is not always the case. The use of tone sequences in each language is so distinctive that it is an important feature in the identification of Zulu and Xhosa dialects.

The important tonological rule of tone shift obtains in both languages, but it is not applied in both of them in the same manner, cf.:

X /òònyòkwàná/ (your little mothers)

Z /òònyòkwàná/

There is an important difference here. /óò-/ is in Zulu a synchronically established contraction and it is pronounced by many with a glide between two vowels, cf. /ó^wò-/. It still reacts phonologically as two syllables. This is not so in Xhosa where it is only a vowel with a long quantity. Synchronically it is no longer possible to establish within the Xhosa dialects that it is the equivalent of a form *ábó-*.

The potential form has been chosen to give an indication of these tonal differences between Zulu and Xhosa.

Two different tone dialects can be identified for Zulu. The speaker who was used, spoke the one which is found in the coastal area north of Durban. This area swings west in the direction of Swaziland. The other tone dialect is found just across the Thukela in the centre of Zululand and the Natal Midlands as far south as Pietermaritzburg. This tone dialect seems to show greater similarities with Xhosa, but not in all respects. Space does not allow us to go into detail here. Some reference will be made to this dialect which

† Most Xhosa speakers make the SC of the 3rd person sing. in the above example low, i.e. *ú-*; for that matter so do many Zulu. If there is any ambiguity between *he* and *you* they will repeat the absolute pronouns *wéná* and *yéná* to clear up any doubt about to whom they are referring.

will be known as B and the other one will be called A.

The informant used for Xhosa speaks a very standard Xhosa but he tends to make use of the Transkeian tone sequences and these will be given, when used. The differences between Ciskeian and Transkeian Xhosa tone sequences are not so obvious as in the case of Zulu A and B.

The Potential Form

The term potential form is used in preference to that of potential mood, because there is no basis to accept it as such.

Not all South African Bantu linguists recognize it as a potential form. Some, like Cole³, call it in Tswana and other languages by the term conditional.

It will emerge in this article that there are good reasons for this difference in opinion in the use of terms.

The main characteristic of the potential form in Zulu and Xhosa is the use of *-nga-* after the SC. The syntagmatic string is in the positive:

SC + *-nga-* + verb stem.

This is the same for both languages, but in the negative there are differences. The negative *a-* does occur as the initial formative in certain Zulu speech forms, but it is considered as not standard. In Xhosa it is standard and its omission is discouraged. *-nga-* becomes *-nge-* in both languages, but the verb terminative is *-i* for Xhosa and *-e* for Zulu. Leaving the written standardized forms aside, the negative string can be formalized as follows for Zulu and Xhosa:

$a.(x \sim z) + -nge- + R + NT (x \sim z)$

$(x \sim z)$ indicates the variation in the presence of this formative in the negative. R stands for root and NT indicates the negative terminative.

The presence of the OC is not indicated in this formalization, because its presence is optional in front of the root or stem.

The meanings usually associated with this verbal form vary considerably. Usually it is said that with this verb form, the subject *can*, *may* or *will* perform an action, or be in a state. The main object of this article is to study the tone sequences of the potential form and not all its various shades of meaning. These will not be studied in detail, but an important syntactic function of the potential form will be carefully investigated. This syntactic function gives an added shade of meaning to the verb form and this will be noted.

Tone Sequences of the Potential Form

Monosyllabic Stems:

	X	POSITIVE HIGH	Z
		<i>úkútyá</i> (to eat)	<i>úkúdlá</i> (to eat)
(a)		<i>inná ndingátyá</i> (I can eat)	<i>miná ngingádlá</i> (I, I can eat)
(b)		<i>inná ndingátyá xá ndifumána úkútyá</i> (I, I can eat if I find food)	<i>miná ngingádlá úmá ngithóla úkúdlá</i> (I, I can eat if I find food)
(c)		<i>úkúbá ndingátyá ndingáhlúthá</i> (If I can eat I can be satisfied)	<i>úmá ngingádlá ngingásúthá</i> (If I can eat I can be satisfied)
(d)		<i>ndingáhambá ndákútyá</i> (I can go when I have eaten)	(Temporal form not in Zulu)
(e)		<i>ndingátyá ndiyónelá úkútyá</i> (Should I eat I shall need food)	<i>ngingádlá ngiyósúthá</i> (Should I eat I shall be replete) <i>ngingádlá ngiyèsúthá</i> (I am full should I eat)

These sentences show that the potential form can be used alone as a complete sentence, or be used as part of a sentence constituted of more than one verb phrase.

3. Cole, D.T.: *An Introduction to Tswana Grammar*, Longmans, 1955.

The tone sequence seems to be lhH for Xhosa, but in Zulu there is an important difference. The penult has a falling tone and it is followed by a high tone on the stem. Because the real morphotoneme which is isolated as a falling tone can only be found on the penult of a basic or extended stem, and cannot be succeeded by a high tone, this falling tone must be regarded as a tone cluster as already explained, i.e. /-ngã-/. The tone sequence for Zulu is then lh/H.

/-ngã-/ presupposes that some or other formative has disappeared in a contraction. This is very likely because in the following introductory form, a falling tone is found and the vowel has a long quantity:

Z. /ngáà/ *ngá ngáhám-bà* (I should have gone)

Actually my informant prefers the full form of *ngábè*:

ngábè ngáhám-bà (I should have gone)

One can only conclude that the prefixal /-ngáà-/ has the same origin in the potential in Zulu. The high tone which -ngá- has in Xhosa need give no trouble, because this -ngá- has a longish length, cf.:

àngátyá úkútyá > *àngáty'úkútyá*

In the example with the elision of the vowel the -ngá- has unmistakably a longer length than the usual short syllable which is not in a penultimate position, i.e.

àngá·tyúkú:tyá.

On this basis it is not impossible to accept that the basic tonemic shape of -ngá- should be /-ngã-/ in Xhosa, i.e. that it has two high tonemes as a tone cluster, viz. *hh*.

A formative -nga can appear as a verb stem in Xhosa:

àngá àngátyá úkútyá (He wishes to eat)

When the vowels in the terminating position are omitted the length of the potential -ngá- is very obvious:

àngàngátyúkútyá, i.e. *àngàngá·tyúkú:tyá*

The potential form in sentence (e) undergoes very interesting changes in its tone sequences. In both Xhosa and Zulu the -nga has become low and they have acquired a different shade of meaning which is clearly conditional. For that matter it can never form a syntactic head (main clause) of a sentence.

X	LOW	Z
<i>úkúlwá</i> (to fight)		<i>úkúlwá</i> (to fight)
<i>ndìngálwá xá ndìthàndà</i> (I can fight if I like)		<i>ngìngálwá nxá ngìthàndà</i> (I can fight if I like)
<i>ndìngálwá ndìyòphá</i> (Should I fight I shall bleed profusely)		<i>ngìngálwá ngìyòkòphá</i> (Should I fight I shall bleed profusely)

The tone sequences are the same in the two languages for the first two sentences which contain the usual potential forms. But the last one has the conditional variant and a difference in the tone sequence can be found. Only the terminating syllable is high in Xhosa and in Zulu all are low. The falling cluster of tones has disappeared in these sequences because the stem is now L. This can be explained in terms of tone shift. *hl* in Zulu has become *hh* because low (L) follows on it.

The interpretation of the low tones on the conditional forms on -ngá- as a probable clustering of *ll* will be discussed later.

NEGATIVE		
X	HIGH	Z
<i>àndìngétýí</i> (I cannot eat)		<i>ngìngédle</i> (I cannot eat)
<i>àndìngétýí ndìyá kùlám-bà</i> (I shall be hungry should I not eat)		<i>ngìngédle ngìyákùlám-bà</i> (I shall be hungry should I not eat)

The tone sequences for Zulu and Xhosa are here nearly the same, i.e. *llh/H* and *lh/H*. The -ngé- can again be identified with a longish length and it is probably a contraction of

two formatives. In this connection compare Xhosa:

/ngê/ *ndihámbà* (I should go)

ngê ndihámbà constitutes in Xhosa a continuous IC phrase consisting of two syntagmata. The *ngê* has in clear distinct speech an unmistakably longer length than that usually found on a syllable which has not a penultimate position. This may be because of overcompensation to emphasize the falling tone, but I prefer to accept it as a concomitant factor going with the tone cluster *hl* which is an indication of an original contraction which may only be established diachronically.

It must be mentioned here that *hlh* can also be used in the conditional function of the potential in Zulu. This language prefers to make use of the introductory word *úma* in such a case, cf. *úma ngìngêdlé* . . .

This applies to all the other examples of the negative conditional of the potential given in this paper.

Where the *-nge-* has a low tone in the conditional, it is probable that this last low tone should actually be analyzed as *ll* because of the distinctive length which *-ngê-* still retains when it carries a low tone. The basic sequence for this syntagmatic string in the conditional might thus be given as:

	lllH LOW	
X		Z
<i>àndìngêlví xá ndìngàthàndì</i> (I may not fight if I do not want to)		<i>ngìngêlvé úmà ngìngàthàndì</i> (If I do not want to I may not fight)
<i>àndìngêlví àndiyúkóphà</i> (Should I not fight I shall not bleed)		<i>ngìngêlvé àngiyúkóphà</i> (Should I not fight I shall not bleed)

The tone sequences of the potential in the negative with a low monosyllabic stem are excellent examples of the economic use of linguistic distinctions. They are basically the same as for the high monosyllable.

	LL	
X	<i>Úkúlàmbà</i> (Be hungry)	Z
<i>àngálàmbà</i> (He can be hungry)		<i>àngálàmbà</i> (He can be hungry)
<i>ndìngálàmbà úkùbà àndìdlì</i> (I may be hungry if I do not eat)		<i>ngìngálàmbà, úmà ngìngàdlì</i> (I may be hungry if I do not eat)
<i>ndìngálàmbà ndiyácélà</i> (Should I be hungry I ask)		<i>ngìngálàmbà ngiyácélà</i> (Should I be hungry I ask)

The tone sequences for LL stems are very interesting. In Xhosa they stay LL in the potential use of this form, but in Zulu the stem becomes FL. When such a stem has an object it becomes naturally HH, cf. the use of *úkùbàlá* (count) in Zulu:

àngábàlá (He can count)

àngábàlá izínkómó (He can count cattle)

The high tone on *-ngá-* has shifted completely from the formative and the last two syllables have become HH. The high tone *-ngá-* still retains its longish length in Zulu and Xhosa so that it is actually *hh*.

In Xhosa the regular pattern is followed with only a high tone on the terminating syllable, while only low tones occur in Zulu in the conditional use of the potential.

The peculiar influence of the depressor consonants must be noted in Zulu when LL stems are used in the potential. In such a case LL does not become FL but stays LL when it terminates the immediate constituent (IC) phrase of a sentence, cf.:

àngàbhémà (He can smoke)

But when an adjunct is added to the IC then LL becomes HH just as if it were FL, e.g.:

àngàbhémà úgwàyi (He may smoke tobacco)

It has already been postulated that *-nga-* can carry *hl*, *ll*, and *hh* tones according to its context. It is probably this exceptional tone clustering that strengthened this morphotonic tone change causing it to break through the tone assimilation barrier caused by the depressor consonants.

Many Zulu speakers do not make FL to become HH, but LH. This has been noted to some extent in Xhosa. But my Zulu informant prefers the morphotonic substitution HH and this has been used.

X

Z

Neg.

àndìngèlámíbì úkùbá ndìyàtyá (I cannot be hungry if I do eat)

àndìngèlámíbì àndìcèlì úkùtyá (Should I not be hungry I do not ask food)

In the negative *-ngé-* still has a falling tone in Xhosa. The main difference is that LL becomes in Xhosa LH and in Zulu HL:

The conditional sequence has only one terminating high tone in Xhosa. In Zulu only *-ngé-* has become low, i.e. *ll*.

The tone sequences are the same for HL and FL in Xhosa, cf.:

Positive

Negative

HL

ndìngáhámhá xá ndìthándá (I may go if I like)

ndìngáhámhá àndìgùlì (I am not ill should I go)

àndìngèhámhè xá ndìthándá (I may not go if I want)

àndìngèhámhè ndìyágùlá (I am ill should I not go)

FL

ndìngábúyá xá ndìthándá (I can return if I like)

ndìngábúyá ndìyágùlá (I am ill should I return)

*àndìngèbúyì** (I cannot return)

àndìngèbúyì ndìyágùlá (I am ill should I not return)

The tone sequences for stems with HL and FL are in Zulu:

Positive

Negative

HL

ngìngáhámhá (I can walk)

ngìngáhámhá ngìyógùlá (I shall be ill should I walk)

ngìngèhámhè (I cannot walk)

ngìngèhámhè ngìyógùlá (I shall be ill should I not walk)

FL

ngìngábúyá (I can return)

ngìngábúyá sìyóxóxá (We shall talk should I return)

ngìngèbúyè (I cannot return)

ngìngèbúyè àsìyúxóxá (We shall not talk should I not return)

-ngá- is high in Xhosa but low in Zulu in the potential function of this form. The stems HL and FL are for both languages HL in the positive and negative in this particular function of the verb form.

The conditional variant has again in Xhosa only one high tone on the terminating syllable in the positive and negative. The Zulu conditional form has the same tone sequence as the form when used in its purely potential syntactical function both in the positive and negative. Again attention must be drawn to the fact that speakers prefer to use *úmá* to introduce the negative conditional.

* The sequence *àndìngèbóní* is also heard in certain dialects of the Transkei. HH is naturally a morphotonic replacement for FL.

Trisyllabic stems derived from dissyllabic stems have the following patterns in Xhosa:

	Positive	Negative
HL	<i>ndingáthembísá</i> (I can promise) <i>ndingáthembísá úyá kúvúyá</i> (He will be happy should I promise)	<i>ándingèthembísì</i> (I cannot promise) <i>ándingèthembísì àkáyúkúvúyá</i> (He will not be happy should I not promise)
FL	<i>ndingáthèngísá</i> (I may sell) <i>ndingáthèngísá ndibùyéla</i> (Should I sell I do return)	<i>ándingèthèngísì</i> (I cannot sell) <i>ándingèthèngísì ndiyá kùlamba</i> (I shall be hungry should I not sell)
LL	<i>ndingábálišá</i> (I can help to count) <i>ndingábálišá úyá kùgqibá</i> (He will finish should I help to count)	<i>ándingébálišì</i> (I cannot help to count) <i>ándingébálišì àkáyúkùgqibá</i> (He will not finish should I not help to count)

The conditional use of the potential does not give any trouble, because all its tone sequences have become low ending on a terminating high tone on the last syllable in Xhosa. In the more eastern dialects of the Transkei the tone sequence differs from the one given here. It is the actual potential use of this form which is the most interesting as far as tone sequences are concerned in Xhosa. Here definite distinctions have been maintained according to the basic HL, FL and LL stem from which the trisyllabic extended stems have been derived. This is rather exceptional in Xhosa, where the general linguistic rule of an economic use of linguistic distinctions is generally maintained.

The extended stem of HL keeps its HLL sequences, cf. *úkwèthembísá*. FL has LHL which is the same as its extended form of the infinitive.

The extended stem of LL has a tone sequence according to the pattern of the infinitive, cf.: *úkubálišá*.

The SC is always low while with the extended forms of HL and FL the *-nga-* is high, and for the extended form of LL the potential formative is low.

The high and low tones on *-nga-* are again analyzed polytonematically respectively as clusters of *hh* and *ll*. This will be discussed under the tones of *-nga-*.

The sequences of the trisyllabic stems in Zulu are:

	Positive	Negative
HL	<i>ngìngáthèmbtísá</i> (I can promise) <i>ngìngáthèmbtísá úyòkùbúyá</i> (He will return should I promise)	<i>ngìngèthèmbtísè</i> (I cannot promise) <i>ngìngèthèmbtísè àkáyúkùbúyá</i> (He will not return should I not promise)
FL	<i>ngìngáthèngtísá</i> (I can sell) <i>ngìngáthèngtísá ngiyábúyéla</i> (I do return should I sell)	<i>ngìngèthèngtísè</i> (I cannot sell) <i>ngìngèthèngtísè ngiyòkùlamba</i> (I shall be hungry should I not sell)
LL	<i>ngìngábálišá</i> (I can help to count) <i>ngìngábálišá úyòkùqèdà</i> (He will finish should I help to count)	<i>ngìngébálišè</i> (I cannot help to count) <i>ngìngébálišè àkáyúkùqèdà</i> (Should I not help to count he will not finish)

The tone sequences of the trisyllabic extensions in Zulu differ from that of Xhosa when they are used in the positive potential form. All the potential forms of the trisyllabic stems end on HFL.

When the terminating verb phrase should be extended then the terminating HFL becomes LHH, cf.:

- ngìngáthèmbtísá úbábà* (I can promise father)
ngìngáthèngtísá ìnkómó (I can sell a beast)
ngìngábálišá ìzìnkómó (I can help to count cattle)

The extended stems of HL and FL become LHL when used in a conditional syntactical construction. This tone sequence is thus not the same as given for the potential

function when an extension follows on the form.

LHH is different from the examples with other tone sequences where there is a falling morphotoneme on the penult of an extended stem in Zulu and Xhosa, cf.:

/saälimisánà/ (We helped each other to plough)

BUT

/saälimisánà/ *éntábèni* (We helped each other to plough on the mountain)

The tones of the positive conditional form of an extended stem of LL are all low in Zulu.

The tone clustering on *-nga-* and *-nge-* will be discussed later under that heading.

All the negative potential forms derived from HL, FL and LL are the same in Zulu and Xhosa, viz. l/lhLHL. The *-ngê-* with its falling tone which is given here polytonematically as *hl* has a very discernible longish length amongst the short syllables. The rule of an economic use of linguistic distinctions was put to full use in the negative potential. Only the negative *a-* is not found in Zulu.

The *-nge-* in the negative conditional use of the potential is low in Zulu.

The Tone Clustering on *-nga-* and *-nge-*

When *-nga-* and *-nge-* have the falling tone of the cluster *hl* this tonal combination is easy to identify. The clusters *hh* and *ll* are not so readily ascertained. That they do occur can be deduced from the tone sequences of the potential with extended stems.

úmfanà (youth) has the sequence hhHL in Ciskeian Xhosa. When it has an extension the sequence is hhHLL, cf. *úmfanáyànà* (little youth). X: *àngáthémbisà* can be explained in terms of the last sequence. If *-nga-* should have only one single high toneme a very irregular tone sequence would be found in Xhosa. On the other hand, if a cluster of two high tones is accepted on *-nga-* then a tone sequence very much like that of *úmfanáyànà* is distinguished, i.e. *lhhl*HLL. Furthermore the *hh* cluster would coincide with the concomitant longer length on *-nga-*. If *-nga-* should have a single high tone this would be completely wrong, because this would mean that this single high tone should actually have become low so that only one high tone could be found on the third-last syllable according to the general rule of tone shift in Xhosa, cf.: *úkúlambà* (become hungry) *úkúlámbisà*.

Because of the evidence of *-ngá-* having a clustering of two high tones in *ndìngáthémbisà* a cluster of high tones has also been accepted for *ndìngáthèngísà*. The clustering of two low tones in *ndìngábálisà* is very evident when the tone shift for LL stems are compared:

úkúlimá (plough) > *úkúlimísànà* (help plough for one another)

Some people may object to an identification of a clustering of tone on *-nga-*, but this was thought best because then there will be a certain amount of consistency in the explanation of the tone sequence.

The trisyllabic extended stems in Zulu are all HFL preceded by low tones in the potential form. It is only the length of *-nga-* which is an indication of the clustering of *ll*. The tone sequence is therefore given as *l/HFL*.

Conclusions

The most obvious similarities between Zulu and Xhosa are the nearly identical formatives which occur in their syntagmatic strings which can be identified as syntagmata of various grammatical and predicative categories, i.e. noun, adjective, present tenses of the indicative mood etc. These similarities are not so very easily ascertainable when it comes

to the sequences of tonemes associated with the different syntagmata, cf. the present potential, positive:

	X	Z
H:	lhh	l/h
L:	lhl	l/hL
LL:	lhLL	l/hFL
HL:	lhHL	l/HL
FL:	lhHL	l/HL
HL:	lhHLL	l/HFL
FL:	lhLHL	l/HFL
LL:	lHLL	l/HFL

This is a very graphic comparison of the differences in the tonemic sequences. The only similarity is when the low monosyllable is used.

Another fact becomes clear. The tone sequences of the Xhosa potential forms follow very closely the general rules in tone shift in that language. A series of high tone ending on a low one is quite common, cf.: *intlábáthi* (sand) > *éntlábáthini* (in the sand), or *intlábáthi* > *éntlábáthini*. The other rule of having two low tones on the penult and terminating syllable, preceded by a high one, has already been mentioned.

The Zulu potential forms also follow the general tone sequences of that language. The general tendency is to have a high or falling tone on the penult, cf. *ámálungiselo* (preparations).

When present potential is used in the negative the tone shows a higher percentage of correspondence, cf.:

	X	Z
H & L	l/h/H	l/h/H
HL & FL	l/h/HL	l/h/HL
LL	l/h/LH	l/h/HL
HL, FL, LL	l/h/LHL	l/h/LHL

When the conditional variant of the potential is used in the positive and negative, the tone sequences are relatively simple for Xhosa. All the tones are low except the last syllable of the conditional string, which is high.

The Zulu tone sequences for the conditional differ in all cases from those of Xhosa. As we have seen they prefer to use the introductory *úma*, expressing the conditional so that the potential tone sequences are found quite satisfactory. However, sometimes speakers do use the conditional sequences given.

This preliminary paper ought to be sufficient to show the importance of the use of tone in dialect studies in the Bantu languages. In future studies of dialects sufficient reference to tone will have to be made. It will be essential in dialect geography to indicate any tonological differences in a topographical analysis of a language situation.

A thorough study of the Nguni dialects has become very necessary. N.J. van Warmelo has in his many publications given us a wealth of information on this subject. This will have to be expanded and refined by the intensive use of tonology. The great majority of the Bantu in the Republic of South Africa speak some or other Nguni dialect. An intensive study of these dialects will certainly explode the fallacy that the Nguni dialects are relatively homogeneous in their phonology and morphology. All of them have certainly the very typical dissyllabic sequence FL, but this should not mislead anyone.

Two important factors in the use of tone in Xhosa and Zulu have emerged in this

paper. In the case of Xhosa it is the elimination of tone distinctions when the conditional form of the potential is used. All the distinctive sequences of tones on the formatives in a potential string were replaced by a series of low tones ending in high. This is something like the position in Tsonga where the head IC verb phrase of a sentence, constituted of more than one verb phrase, can only have high tones, cf.:

à ndzí lwí nyímpí yíkúlú (I do not fight a big army)

BUT

à ndzí lwí nyímpí yíkúlú, híkúvá ndzí rhúrhilè (I do not fight a big army, because I am peaceful)

Over one particular segment of a sentence minimal tone distinctions have disappeared. A study of this phenomenon in the Bantu languages may give us more information on why languages like Makua, Nyakyusa and others have only sentence tone.

The second point is the influence of voiced depressors on tone sequences in Zulu. Here Zulu shows a definite affinity with Tsonga, cf.:

ndzì nwá mási (I drink fermented milk): *mási*

BUT

ndzì nwá byálwá (I drink beer): *byálwá*

/by/ is a consonant cluster with depressor characteristics and such depressors stop any tone repetition when they occur in the initial syllable of LH. When such a depressor is not found in LH then tone change does take place, e.g.:

ú lwá nyímpí (He fights an army) : *nyímpí*

From the above it is clear that Zulu and Xhosa show strong affinities to Tsonga. This can be established if the comparison of tone is also done. Any such comparative tone study will only help to put a particular group of languages in a better linguistic perspective and give fuller information about their development.



