

***THE PAI LANGUAGE OF EASTERN MPUMALANGA
AND ITS RELATION TO SWATI***

by

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DECLARATION

I declare that,

'The Pai Language of Eastern Mpumalanga and its Relation to Swati'
is my own work and that all the sources I have used or quoted have been
indicated and acknowledged by means of complete references.

The thesis is being submitted for the degree of
Doctor of Literature and Philosophy
at the University of South Africa in Pretoria and not in whole or in part,
for examination at any other university.

Signed: _____

W. J. Jordaan

This

31st

day of

January

1997

CONTENTS

Acknowledgements	vii
Summary	viii
CHAPTER 1: <i>Aim, Background, History and General</i>	
<i>Introduction</i>	
1.1 Aim and Exposition	1
1.2 Present Situation of Pai	4
1.3 The Research Material	5
1.4 Historical Background of the Pai	10
1.5 General Introduction	22
CHAPTER 2: <i>The Sound System of Pai</i>	
2.1 Introduction	29
2.1.1 Approach	29
2.1.2 Methodology	31
2.2 Vowels	35
2.2.1 Introduction	35
2.2.2 The Pai Vowels	36
2.2.3 Analysis of the Vowel Data	38
2.2.4 Conclusion	45
2.3 Consonants	54
2.3.1 Plosives	55
2.3.2 Fricatives	71
2.3.3 Affricates	79
2.3.4 Nasals	84

	iv
2.3.5 Approximants	86
2.3.6 Click Sounds	88
2.3.7 Nasal Compounds	89
2.4 Summary	98

CHAPTER 3: *Ur-Bantu Consonants in Pai and Swati*

3.1 Introduction	100
3.2 The Primary Plosives	104
3.3 The Primary Fricatives	114
3.4 The Nasals	119
3.5 The Voiceless Palatals	121
3.6 The Voiced Palatals	125
3.7 The Primary B. Plosives in Nasal Compounds	129
3.8 The Primary B. Fricatives in Nasal Compounds	140
3.9 The B. Palatals in Nasal Compounds	146
3.10 The B. Primary Plosives, Fricatives, Palatals and Nasals followed by B. <i>i</i>	151
3.11 The B. Primary Plosives, Fricatives, Palatals and Nasals followed by B. <i>u</i>	163
3.12 The B. Primary Plosives, Fricatives, Palatals and Nasals followed by B. Close Vowels <i>î</i> and <i>û</i>	169
3.13 Consonants Preceding B. Semivowels	185

CHAPTER 4: *Morphological Survey*

4.1 Introduction	193
4.2 The Noun Classes of Pai	194
4.3 The Nominal Derivatives	205
4.3.1 Deverbatives	205

4.3.2	Diminutives	206
4.3.2.1	Diminutives with [-nana]	206
4.3.2.2	Diminutives with [-ana]	207
4.3.3	Locatives	208
4.4	The Pronouns of Pai	211
4.4.1	The Absolute Pronoun	211
4.4.2	The Quantitative Pronoun	213
4.4.2.1	The exclusive quantitative	213
4.4.2.2	The inclusive quantitative	214
4.4.3	The Possessive Pronoun	215
4.4.4	Demonstrative Pronouns	217
4.4.4.1	The Swazi-Tsonga type	217
4.4.4.2	The Sotho type	219
4.4.4.3	The copulative demonstrative	221
4.5	Concordial Prefixes	223
4.5.1	Subject concord (indicative mood, short form, present tense)	223
4.5.2	Subject Concord (long form, present tense)	227
4.5.3	Subject Concord (participial)	229
4.5.4	Object Concord	231
4.5.5	The Reflexive	233
4.6	Aspectual Prefixes	234
4.6.1	The Potential and Progressive	234
4.6.1.1	Progressive	234
4.6.2	The Future	236
4.7	Verbal Suffixes	237
4.7.1	The causative	238
4.7.2	The passive	239

4.7.3	The reciprocal	241
4.7.4	The Applied	241
4.7.5	The perfect	242
4.8	The Relative Construction	245
4.8.1	Introduction	245
4.8.2	Formation of the Relative Construction	246
4.8.2.1	The Relative Pronoun	247
4.8.2.3	Comments on the Pai Structure	249
4.8.2.4	Comments on the Swati Structure	252
4.9	Summary	254
CHAPTER 5:	<i>Conclusion</i>	
5.1	Introduction	255
5.2	The Voiced Plosives of Pai and Swati	260
5.3	The Voiced Fricatives of Pai and Swati	265
5.4	The Voiced Affricates of Pai and Swati	268
5.5	The Voiceless Plosives of Pai and Swati	270
5.6	The Voiceless Fricatives of Pai and Swati	273
5.7	The Voiceless Affricates of Pai and Swati	275
5.8	The Nasals of Pai and Swati	279
5.9	The Approximants of Pai and Swati	281
5.10	The Clicks of Pai and Swati	283
5.11	Summary	285
BIBLIOGRAPHY		288

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SUMMARY

The Pai Language of Eastern Mpumalanga and its Relation to Swati

This thesis is a comparative study of Pai and Swati. The Pai language is spoken in the eastern parts of the Mpumalanga Province of the Republic of South Africa. The study concentrates on the correspondences and differences of the speech sounds of these two languages and reference is also made to the morphology.

The previous comprehensive work on Pai was by Ziervogel (1956) where he classified the Pai language as one of the three dialects of Eastern Sotho. He also considered the Swati elements present in Pai to be merely borrowings. The present investigation into the history of the Pai people indicates that Pai may have had links with languages other than those belonging to the Sotho group and, from the evidence, an Nguni connection has become a distinct possibility.

The speech sounds of Pai are described in detail in chapter two and corresponding speech sounds in Swati are included. The vowels of both languages receive special attention because Pai apparently has a seven-vowel system and Swati a five-vowel system. The corresponding consonants in these two languages soon points towards a relationship that is based on more than just borrowed items. In chapter three the Ur-Bantu sounds of Meinhof and their reflexes in Swati and Pai are described and compared. The wide variety of attestations in Pai and the instability of some phonemes are indicative of a language that has been subjected to many outside influences and that is at the moment in a state of flux.

In chapter four some aspects of the morphology are described in order to highlight the peculiar characteristics of Pai as an individual language. The relationship with Swati is again emphasized by the findings in this chapter. A statistical analysis of the speech sounds of Pai and Swati in chapter five indicates that an Nguni core of sounds exists that is shared by both these languages. A re-classification of Pai within the language context of that area may therefore be necessary.

Key words: Comparative linguistics; dialect; historical linguistics; language change; Nguni; Pai language; proto-language; Sotho; speech sounds; Swati language; vowel system: Ur-Bantu.

CHAPTER 1

Aim, Background, History and General Introduction

1.1 Aim and Exposition

1.1.1 The aim of this study is primarily to re-investigate and describe the sound system of Pai, or *HiPai* as speakers of the language refer to it, and compare it with the sound system of Swati. Inevitably, there are side-issues that will emanate from such an investigation, and some of them will be touched upon to a lesser or greater degree. Details of the speech sounds and aspects of the grammar of the Pai language, the context within which it finds itself, the history of the speakers, its affinities with Swati and its position in the Southern Bantu arena in general will all be covered in the ensuing study. Since the number of speakers of this language is diminishing fast, it will inevitably become extinct. This study is therefore also an effort to put as much material as possible to paper to serve as a source of reference. For this reason a preliminary survey of the noun, the pronoun, some of the prefixes and suffixes and certain aspects of the verb and the relative construction is also included. It is therefore hoped that the linguistic material in this study will be of value to historical as well as comparative linguists.

Pai (*hiPai*, as the speakers of the language refer to it, or *siMbayi*, as it is known by the Swati) is a language form spoken in the eastern parts of the

erstwhile Transvaal Lowveld (presently known as Mpumalanga) of the Republic of South Africa, in the area adjoining the Kingdom of Swaziland, Eastern Mpumalanga and Mozambique. In order to understand the unique characteristics of this language form or language entity (clarification of these terms will follow, cf. par 1.5.2 & 1.5.3), the geographical placement and history of the speakers of Pai has to be taken into consideration.

Louwrens (1987:16) refers to the work of Van Warmelo in this respect and says:

It is hardly possible to describe the linguistic situation which historically developed in this area better than was done by Van Warmelo himself in 1935.

and Van Warmelo describes the situation as follows:

After having been almost entirely devoid of population in former times, this area by reason of its geographical position eventually had to become the meeting place of the tribes from the East, the South, the West and the North-West, and that is what has actually happened. The result is a confused tangle of tribes and sections and scattered units, very often no larger than just a family, speaking several languages and following different customs.

(Van Warmelo, 1935:51)

Van Warmelo does not say *when* this meeting took place. The observations of Louw and Finlayson (1990:401) give a better perspective of the situation:

Nevertheless, it is postulated that both groups (Sotho and Nguni) are descended from two closely related dialects of Eastern Bantu and moved southwards in two streams corresponding with Huffman's Moloko (Sotho) and Blackburn (Nguni) migrations.

However, the picture Van Warmelo paints gives an indication of the language situation in the area where Pai is spoken. This situation stems from the initial southward movement of the two streams (Sotho and Nguni) that was later followed by a northward movement by some groups or tribes. They in turn met

up with other groups and tribes that were left behind in the earlier, southward trek. From the historical data, it seems as if the Pai people found themselves (at a later stage in their history) in the middle of a very dense and varied linguistic environment.

1.1.2 In the second place the aim of this study is to compare the Pai characteristics with Tekela-Nguni of which Swati is considered to be the main exponent. Swati is also one of the languages close to Pai, not only geographically but also historically. The initial idea was to try and prove that Pai may be the link between Nguni and Sotho. However, during the research, it became evident that an effort to establish a link between Swati and Pai may be a more viable prospect as a start. This does not mean that the investigation into the relationship between the two languages cannot be taken further. The present study leaves numerous avenues open for investigation. The affinities Pai has with Tsonga (cf. Louw & Marivate, 1992) also have to be considered since, in certain instances, the correspondences between Pai and Tsonga seem to be even greater than between Pai and Swati. This is not, however, the subject of this investigation but some of these aspects will nevertheless be referred to.

1.1.3 Other scholars on the subject of Pai, *inter alia* Van Warmelo (1935), Ziervogel (1954), Van Wyk (1969) and Louwrens (1987), approached this language from a Sotho point of view. The additional aim of this study is to prove that the Swati elements in the language of the Pai cannot merely be regarded as 'borrowings' and that there are linguistic and historical evidence of commonalities between Pai and Swati that cannot be ignored.

1.2 Present Situation of Pai

1.2.1 Ziervogel's important work on the Pai (1954) was based on research carried out during the period 1950-1952, and his main source of information was the people of Chief Masuku. He makes the following remarks regarding the position of these people at the time:

Masuku has his followers as far as the towns of White River and Sabie, ... he seems to have sufficient influence amongst the Pai to establish his authority over more than 2000 individuals living on farms on both sides of the Sabie River from the town of Sabie as far as the main road from White River to Bushbuckridge, and over others living in compounds and urban locations..... How many still regularly use the Pai language one cannot say - perhaps a few hundred.

(Ziervogel, 1954-10)

1.2.2 The research material on which the present study is based, was gathered during 1983-84 and more will be said about it later (cf. par 1.3). The area where the research was carried out is known as enKambeni and falls under the authority of Chief Mhaule. Information obtained at the time, indicates that there are still Pai living in the Burgersfort area. They may well be descendants of the group that fled with Lesisi and Somcuba to Sekhukhuniland and who decided to stay there (cf. par 1.4.11). It was established, via the then Commissioner of Co-operation and Development at Nelspruit that, apart from the Pai in the Burgersfort area and those of Chief Masuku and Chief Mhaule, another group was in the Bushbuckridge district under a Chief Matibela. During discussions with Bornman (1992), it became clear that the few Pai speaking people remaining at the moment, are scattered over the whole of the Lowveld and a number can still be found as far south as Barberton and to the west as far as Badplaas.

1.3 The Research Material

1.3.1 The research material presented in this study was collected during two field trips to Pai territory in October 1983 and again in February 1984 under the supervision of Prof L J Louwrens of the Department of African Languages at Unisa. He recognised the need for in-depth studies of the rich variety of dialects in Eastern Mpumalanga and the eastern parts of the Northern Province. Van Warmelo described the linguistic scenario in these parts in 1935 and Ziervogel (1954) carried out his research in 1952. It was therefore a logical step to re-visit this area again to see what had become of this tribe that was one of the role-players in the early cultural and linguistic history of the Lowveld and nearby Swaziland.

1.3.2 The aim with the first research trip was to establish whether, at the time, a comprehensive investigation into the position of the Pai was justifiable and to determine to what extent Ziervogel's material was indeed correct or had become outdated. Ten informants were consulted and phonetic, phonological, morphological and lexical data were collected and later analysed and recorded. The data was compared to Ziervogel's data and it soon became evident that Pai was, at the time (1983), still spoken in a relatively pure form by some individuals. This proved that Pai, as a language, was still alive. Further comparisons with the work of Ziervogel (1954) indicated a number of differences as well. From a historical linguistic and language change point of view, this opened up numerous avenues for research.

The recorded material was used to compile a comprehensive field work program for the next visit to the area. It must be pointed out (as it will be in the ensuing chapters) that the perspective of the research team at the time was that

Pai is part of the Eastern Sotho (cf Van Warmelo (1935), Ziervogel (1954), Van Wyk (1969) and Louwrens (1987)). Any observation and/or criticism of the research material regarding the Swati connection is part of the present study and was not included in the original dissemination of the material.

1.3.3 Chief Mhaule (cf. par 1.2) was the contact person during the first trip and he again organised informants for the second. Some of the informants had participated during the first trip but others were new. In total 14 informants were consulted during the two research trips. As far as could be ascertained, only seven of these informants spoke Pai in a so-called "standard" form, ie the form that was used before the language was changed to any great extent due to influences of other languages. The informants, with their approximate ages, are listed below. Note that the orthography used for the Pai names will be in italics, according to the orthography of Ziervogel (1954). This will be followed by the 'invented' orthography as described in par 2.1.2.2 as well as an IPA transcription (of the Pai names only) in bold.

	Name	Age
1.	<i>Elliot</i> <i>Mgwênya</i>	50 - 55
	Mgwenya (cf. Swati: Mngwenya)	
	mǣwɛɲa	
2.	<i>Ephraim</i> <i>Malandolê</i>	50 - 55
	Malandule	
	malandole	
3.	<i>Lesá</i> <i>Mokwêna</i>	75 - 80
	Lisa Mukwena	
	lesa muk'wena	

- | | | | |
|----|-------------------|-------------------------------|---------|
| 4. | <i>Lina</i> | <i>Mgwenya</i> | 80 - 85 |
| | | Mgwenya (cf. Swati: Mngwenya) | |
| | | mǰweɲa | |
| | | | |
| 5. | <i>Mmaletšêpê</i> | <i>Thôbane</i> | 75 - 80 |
| | Mmalitjepe | Thobani | |
| | | mǰaletʃ'ep'ε tʰɔbane | |
| | | | |
| 6. | <i>Hawani</i> | <i>Mokwêna</i> | 75 - 80 |
| | Hhawani | Mukwena | |
| | fiawani | mok'wena | |
| | | | |
| 7. | <i>Moses</i> | <i>Mmôjane</i> | 80 - 85 |
| | | Mmoyani (cf. Swati: Mbuyane) | |
| | | mǰjane | |

The two older women, Lisa and Mmalitjepe, must be singled out as speaking the language in its purest form. During research sessions they frequently corrected some of the others, mostly where a lexical item was concerned and the word was clearly of Swati origin. These two then insisted on the Pai form and the others - often with embarrassment - agreed. The following is a list of some of these instances. The Swati related form of Pai appears in the first column in IPA transcription, then follows the Swati form in IPA transcription, then the meaning and finally the 'correct' Pai form in IPA transcription:

Swati-Pai	Swati	Meaning	Pure Pai
[ɔʃa]	[ɔʃa]	(chase off)	[ɬɔk'ɔla]
[dʒabola]	[dʒabula]	(be happy)	[tʰaβije]
[fɔtʰe]	[futs'i]	(again)	[xap'ɛ]
[funda]	[fundza]	(learn)	[dʒɔt'a]
[motʰɛtʰɔ]	[umtʰɛtʰɔ]	(government)	[mɔsɔ]
[imp'i]	[impʰi]	(war)	[nt'wa]
[ɲk'unzi]	[iɲk'unzi]	(bull)	[t'ona]

A number of observations can already be made, but since that will be part of the study in the following chapters, only the following will be mentioned here:

- * Some of these lexical items cannot be traced to other Bantu languages in the area.
- * The 'correct' Pai form for "government" is clearly related to *umbuso* of Swati that also means "government".
- * Except for the Swati word for "bull" that was taken as it is from Zunda-Nguni (Zulu), the other so-called forms of Swati origin in Pai do not display the typical affricatisation of plosives as is found in Swati. In fact, the Pai forms are closer to Zunda-Nguni (Zulu) than to Swati, cf *funda*, *impi*, *umthetho*, *futhi*.

1.3.4 During the research sessions and the debate on the origin of some of the lexical items, the word *hiNyomboze* for the Swati language and *maNyomboze* for the Swati people suddenly appeared. No plausible explanation for the origin of this word could be found except that possibly these people (the Swati) wore

their skin clothing differently. It must also be stressed that the awareness of the *hiNyomboze* influence on the Pai language only surfaced in the research situation. In unstructured conversation, ie during rest periods, words of so-called Swati origin like the examples above, were freely used.

1.3.5 Another speech form that the Pai are aware of is *hiLauti*. The impression was that *hiLauti*, ie the language of the *baLauti*, does not refer to a specific language. The term was freely used to refer to people of Sotho-stock who are not Pai. Two informants connected this term to Sekhukhuniland because their mothers were *baLauti* (cf. the historical background of the Pai and their flight to Sekhukhuniland, par 1.4.11). A number of terms that were used by these two informants are clearly Pedi and were rejected by the others, eg

Pedi:	[βeɛla] (lay eggs)	Pai:	[ts'walela]	
	[kx ^h ɔɔ]		[kx ^h okl'a]	Note that this form corresponds with the Tswana form <i>kgotla</i> and not with NS.
	[lela] (intestine)		[leɔp'o]	

1.3.6 An enormous amount of material was collected during the two field trips and mainly the phonetic and phonological data (with a short survey of the morphology) are used in this study. My interest in the Pai was rekindled after the publication of Louwrens' article in 1987 and Msimang's thesis on the Tekela dialects (1989) as well as discussions I had with J. Bornman who made enquiries about Swati place names in the Lowveld and remarks made by Swati colleagues about *siMbayi*. The possibility of establishing Pai as a bridge between Sotho and the Tekela languages seemed a plausible theory and it finally resulted

in this comparison of Pai and Swati. The need to preserve the research material served as additional motivation for this study since the quality of the material on audio-tape was already deteriorating and some of the transcriptions (most of them in pencil) were also not clear anymore.

1.4 Historical Background to the Pai

1.4.1 In his opening paragraph on this subject, Ziervogel (1954:10) clearly states that "The history of the Pai is veiled in obscurity". From the sources that are available, this is indeed the case. This study will attempt to show that the correspondences that exist between the languages of the Pai and the Swati (the main object of this study), also have a historical basis. Therefore the history of the Pai as described here, will not only be the history of the Pai alone, but also of the Swati and therefore also of the Tekela-Nguni. My argument will revolve around the following observation by Louwrens:

Van Warmelo (1935:111), Ziervogel (1954:3-5), and Van Wyk (1969) all state beyond any doubt that Pai belongs to the Sotho language group. Very little is, however, known about the origin of these people, and Ziervogel rightly warns against indulging 'in flights of fancy' in order to reconstruct the historical background of the Bapai and their language.

(Louwrens, 1987:17)

and specifically the statement "that Pai belongs to the Sotho language group". The reconstruction of the historical background of the 'Bapai' will also receive some attention.

1.4.2 Msimang (1989:35) describes the problems of an historian dealing with African history who has, in most cases, to rely upon the oral tradition to

reconstruct the past. He quotes Ownby who says:

..... to successfully deal with these contradistinctions, the historian needs a new base-line, that is, additional evidence which will critique existing interpretations and suggest new ones To some extent this will be provided by archaeology. In addition, however, linguists will undoubtedly help solve the problems of early Nguni history, perhaps even play a major role.

(Ownby, 1981:61)

This ties up with remarks by Weinreich (1979) whom I refer to further on (cf. par 1.5.3) regarding the value of linguistic evidence in respect of archaeological and anthropological research.

1.4.3 As this study is concerned mainly with Pai and Swati, and consequently with Tekela-Nguni, I am going to quote extensively from Msimang (1989) who thoroughly researched the origin and nature of the Tekela-Nguni dialects. His interpretations and deductions, based mainly on the work of Bryant (1929), and his intimate knowledge of the structure of the clans and tribes of Southern Africa, are relevant to the subject and provide new insights into an obscure past.

1.4.4 After dealing with Bryant's Western-Nguni and Pure-Nguni, Msimang (1989:37) proceeds to the Tekela-Nguni:

The third group known as Tekela-Nguni migrated seawards. They then branched into two sub-groups. One sub-group wheeled south from about the Nkomati river and settled in the area bordered by the Lubombo range and the sea southward of the modern Delagoa Bay. This was the abaMbo branch (alternatively, Dlamini or Swazi Nguni). Some of the abaMbo penetrated the modern Swaziland and northern Natal crossing the Buffalo river in the west to settle below the Drakensberg range. The second branch pushed further seawards and more slightly to the north where:

... they struck the vanguard of the foreign Thonga-Bantu ... then streaming southwards along the coast. After closely associating with these, and meanwhile picking up something of their blood, their manners and their speech, they struck camp once more and, wheeling about ... became the head of the Bantu procession, marching south-ward along the coast, first through the modern Zululand, later into the lower half of Natal.

(Bryant, 1929:7)

These Tekela-Nguni consequently became known as Thonga Nguni. Bryant further divides them into Mthethwa, Lala and Debe sub-groups

(Msimang 1989:37)

Msimang (1989:37-41) then goes on to question the validity of some of Bryant's assumptions, *inter alia* his classification of the Nguni into the Sotho-Nguni (or Western-Nguni), the Tekela-Nguni and the Pure-Nguni which assumes a pre-historical link between Nguni and Sotho. He substantiates his criticism by quoting Louw (1987) who maintains that:

Geographically, the Sotho are the people of the highlands of South Africa and the Nguni of the eastern coastal lowlands. A few Nguni tribes penetrated into the Transvaal Highveld but according to their traditions they very definitely claim to come from Natal or adjoining areas.

(Louw, 1987:142-143)

and emphatically states that,

..., from my conclusion that the Nguni are essentially a lowland coastal group, Bryant's link between the Sotho and the Nguni is thereby nullified.

(Msimang, 1989:40)

and that,

Bryant's view that the ancestral homeland of all the Tekela Nguni was north of the modern Natal, between Lubombo range

and the sea, is accepted. It is also accepted that from there, they split into two groups: the Embo and the Thonga Nguni (Bryant, 1929:7).

(Msimang, 1989:41)

1.4.5 Accepting this as fact, Matsebula (1972) goes on to describe the stay of the Embo-Nguni in eastern Lubombo. He is of the opinion that these tribes increased in numbers and some migrated southwards, amongst others the Natal Dlamini. However, the Emalangeni (who are considered to be the original Swati people) remained behind for a long time and established themselves at the Tembe River near the present-day Maputo (cf. Msimang, 1989:42; Bryant, 1929:335; Matsebula, 1972:5, 1988:9). Ngwane III, who Msimang (1989:44) calls the "Moses" of the Emalangeni, led them across the Lubombo range and settled them in the south of the present day Swaziland.

1.4.6 This brings us closer in time to the first whereabouts of the Pai. Ziervogel (1954:10) says the following:

Some maintain that they originally came from somewhere near the uThukela River in Natal. Some Kwena say that they come from Basutoland. They were disturbed by other tribes, moved northwards through Swazi territory, and were eventually subjugated by the Swazi.

There may be some truth in this. During a visit to the Killy Campbell Africana Library in 1986, I came across this statement in *The James Stuart Archives*, vol. 4, p. 68, par. 26:

Dingana was struck in the thigh by a Swazi spear. His warriors found him being treated by *Ndikili ka Cilo* of the Bayi people of Ntombela.

At the time (C. de B. Webb & J. B. Wright were still compiling the Stuart Archives in 1990), this was the only reference in the archives to "Bayi" people.

When I later mentioned this to Msimang, he said the reference probably was to the Mbuyane clan who lived in that area. However, it is significant that one of the Pai chiefs listed by Ziervogel (1954:9) viz Nyabanyaba, was of the "*bakaMbuyane* clan" which makes the Natal origin of the Pai and the possible link between Pai and Nguni more than just incidental. Note also Bornman's reference to Mbuyane (cf. par 1.4.13).

1.4.7 All this may seem contradictory to the statement of Louwrens (1987:17) who says that,

Information obtained decades ago nevertheless led both Ziervogel (1954) and Van Warmelo (1935) to the conclusion that the Bapai originally inhabited the northern parts of Swaziland before they fled to the eastern Transvaal, owing to Swazi attacks upon them.

This contradiction could be due to the fact that Ziervogel and his informants may have been speaking of times prior to the 19th century while Louwrens and Van Warmelo were referring to the time Sobhuza of the Swati was moving northwards, fleeing from Zwide, leader of the much superior Ndwandwe tribe. Msimang (1989:45) describes Sobhuza's retreat in the following way (and I will comment further on the clan names he quotes):

In his push northwards, he was joined not only by members of his own Dlamini tribe, but all those who had given allegiance to the monarchy at Sobhuza's capital, Eshiselweni. Among those Embo-Nguni clans are included the: Mhlanga, Hlophe, *Fakudze*,¹ Simelane, Matsebula, and others. These became known as the **Bemdzabuko** 'true Swazi'.

(Booth, 1983:8).

Msimang (1989:45) continues his narrative and his observations concur with the

¹My bold italics.

conclusion Louwrens came to above:

Throughout his (Sobhuza's) journey he was joined by many tribes who had settled there earlier.

Most of them were of Nguni and Sotho stock, particularly the *Mbayi*² and the Pedi. The most prominent among them were the Maseko, Mnisi, Gama, Msimango, Motha, Gwebu, Mncina, Magagula, Makhubu, Mshweshe and Bhembe. These were incorporated into his group either by conquest or surrender, and they became known as **Emakhandzambili** 'those found ahead'.

Louwrens (1987:17) continues along these lines, quoting Van Warmelo:

'I hold the theory, though there is not enough evidence to prove it, that the baPai and maPulana, while distinct from one another, are the only remaining representatives of the old Sotho population of Swaziland.' (1935:11)

While Ziervogel was conducting a research project amongst the Swazi, it became clear that, before the advent of the Dlamini, the northern parts of the Swazi country were inhabited by people who the Swazi referred to as *beSutfu*. Ziervogel concludes:

'Nothing beyond this is known about these peoples except that a number of Swazi clans are said to be of Sotho origin.' (1954:3)

However, Msimang does not seem convinced of this fact. Although his arguments are based in many cases on the oral tradition and history of these clans, the information he has collected in this manner cannot merely be regarded as hearsay. He argues that,

One should probably comment on the view that the above clans were of Sotho extraction. The clans mentioned are still extant and none of them - according to my informants - identify themselves as Sotho. The Msimang claim most definitely that

²My bold italics.

they are Hlubi. The Magagula are amongst the most important Zunda Ndebele tribes, although some of them are Swati speaking, and the Mnisi, Maseko, Motha, Gwebu and Mncina claim to be either Swati or Zulu. Bryant refers also to the Zondi, Ndlovu and other Lala tribes as Sotho. In my discussion with Prince M.G. Buthelezi, the KwaZulu premier, I asked him why even the Buthelezi are referred to as Sotho. He vehemently refuted that claim, but added that it had become common practice among the Nguni of old to refer to anyone from the north as a Sotho. Ziervogel who also cites these clans as of Sotho stock becomes rather sceptical of this fact when he traces the Sotho influence in vain. He concludes by saying: "Die bydrae van die Sotho bly nog 'n probleem" (Ziervogel, 1941:12).

(Msimang, 1989:47)

1.4.8 From the foregoing it is clear that, on the one hand a great deal of confusion exists regarding the origins and true identities of some of the so-called Sotho and Nguni tribes, and on the other hand more and more facts are emerging that prove a link between Pai and Nguni. Ziervogel, in his final paragraph of his introduction to *The Eastern Sotho*, states that

Except for the Fakudze no real connection between these names and similar names amongst the Eastern Sotho can be established. For the rest we may indulge in flights of fancy - perhaps the prerogative of the Bantu historian (who) has but the legendary and mythical past to guide him!

(Ziervogel , 1954:5).

1.4.9 Turning now to the Pai and their history, I have had to rely extensively on Ziervogel (1954) and his observations, based mainly on the writings of Van Warmelo (1935). Furthermore I have access to unpublished documents compiled by H. Bornman (1992) on place names and the history of the Lowveld, a project for the Human Sciences Research Council, that contains interesting and sometimes contradictory information. Unfortunately no references or sources are cited in the draft documents I first had at my disposal and the authenticity of

some statements can therefore not always be ratified. Later drafts relating to the place names of the Lowveld are well documented and numerous references are quoted.

1.4.10 After the incorporation of the *Emakhandzambili*, including the Pai, (if the Pai was indeed part of the *Emakhandzambili*, cf. par 1.4.7) into his kingdom, Sobhuza I reigned until his death in 1839 (Msimang, 1989:44) - or in the summer of 1836 as recorded by Bornman (1992). During the later years of his reign, and after that when Mswati II ascended to the throne, the existence of the Pai was often threatened.

1.4.11 Ziervogel (1954:10) places the Pai, "presumably in the first half of the 19th century", as far north as the northern parts of the Nelspruit district, under the reign of Lesisi, son of "Hêrêkê". Of the latter, nothing is known, but the name of his son, Lesisi, often crops up with that of Somcuba, the 17th son of Mswati II (Matsebula, 1988), who apparently had a fall out with his father and fled to the Pai. According to Ziervogel,

Lesisi was supposed to be an *induna* of Somcuba. Although the Pai were nominally, if not actually, subjects of the Swazi, they must have been subjugated by Somcuba after he fled from Mswazi in about 1853. *The history of the Pai now becomes the history of the Swazi of Somcuba.*³ Somcuba was murdered at his kraal near the Crocodile River (*Mokwêna; umGwenya* or *umNgwenya*). His followers, including the Pai, moved to Sekukuniland where Sekwati allowed them to live on the western bank of the Steelpoort River. (1954:11)

Somcuba was succeeded by his son, Msutfu, who led this group to

My bold italics. This comment by Ziervogel is important.

Sekhukhuniland and he was in turn succeeded by his two brothers. All of them were descendants of the royal house of the Swati king and one can only assume that they had a number of followers with them. The Swati influence on the Pai language and culture must therefore have been extensive. This was however, countered in the sense that they were living in a Sotho area. Of course not all the Pai fled to Sekukuniland and some of those who did, later returned to their dwellings along the Sabi River.

1.4.12 According to Bornman (1992), the Pai lived near the north-western border of present-day Swaziland and were conquered by the Kutswe before Sobhuza I started his trek northwards. Apparently only the "baKutswe", the "maPulana" and the "Mbayi" amongst the "Bapedi" tribes living in that area offered any resistance to Sobhuza's warriors, but were eventually driven across the Crocodile River. The exact location of the Pai at the time supposedly was on the Three Sisters Mountain, later called Mbayiyane by the Swati because of the Pai who lived there. Two Swati regiments, the Malalane and Nyatsi, were sent to punish or conquer the Pai and did so, almost annihilating the Pai in a bloody battle that caused the Swati to call the nearby Low's Creek "Mantibovu", ie Blood River (Bornman, 1992).

Ziervogel provides us with a reason for this attack:

While the Pai of Lesisi lived at the umLambongwane, the Swazi attacked the Pulana. The magician at the Swazi court at the time was a Sotho called Malaruxe Marule, who was responsible for "fortifying" the Swazi warriors (*kuphunga impi*). The attack on the Pulana ended in a fiasco for the Swazi regiments; Maraluxe was made the scapegoat and had to flee. He fled to the Pai of Lesisi - his sisters's son Maxulume Šakwane having married a woman of the Ngutšani clan of the Pai. Since harbouring the king's enemies was a grave offence the Pai were attacked by the Swazi. (1954:11)

This latter attack probably was the battle referred to above and described by Bornman (1992).

1.4.13 In later, better annotated documents by Bornman (also in 1992), he describes the Sotho tribes of the early Swaziland, so often referred to by Ziervogel (1954) and Van Warmelo (1935), in the following way,

It therefore appears that during the same time as Ngwane moved into Swaziland, Sotho speaking clans moved to the north of present Swaziland and combined under a fighting chief named Simkulu. The tribe so formed became known as the Ba-ka-Ngomane whose earlier chiefs recognised no overlord and may be called kings, as were the earlier chiefs of the Zulu and the Swazi.

(Bornman, 1992:4)

Neither Ziervogel (1954), Van Warmelo (1935), Van Wyk (1969) nor Msimang (1989) mentions these "Ba-ka-Ngomane".

Bornman continues with his discussion of the origins of some of the place names in the Lowveld area, and often includes historical references that are not always in chronological order. He says:

The foothills of the Drakensberg, westwards from Malelane and Low's Creek areas to the Barberton Mountain Land, were occupied by emaMbayi, also known as the Maseko people, who were held in subjection by but not incorporated with the Ba-ka-Ngomane. They were driven out of this area in c1850 by the Swazi-regiments. They fled north and occupied the area between the Crocodile and Sabie Rivers.

(Bornman, 1992:5)

and further on, on p. 6 he again refers to the Mbayi:

Eventually the area between the Crocodile and Sabie Rivers was occupied by the Mbayi's (emaMbayi), a distinct group known to the Bapedi as maPayi. They spoke a dialect of Swazi.

yet in subsequent notes to some of the place names, Bornman often refers to the Mbayi as "beSutfu". In his description of some place names, Bornman (1992)

lists a number of names that either originated from the Pai or had some connection with them, eg the "KUMBUYANE" Mountain south-west of Barberton. Bornman says that Mbuyane is a common surname among the Pai and that "Mbuyane could be the ancestral name of their headman".

1.4.14 Although the foregoing narrative gives a great deal of insight into the contact between the Pai and the Swati, and their respective pre-histories, it does not provide concrete evidence of the extent of the language contact or the linguistic origins of the two groups. Ziervogel (1954:11-13) provides other clues when he lists the clan names of the Pai and, interestingly enough, points out the Swati equivalents. What seems to be important here is that some of the clan names of the 'true Swati', ie the **Bemdزابuko**, seem to have links with Pai clans while those cited by Msimang as belonging to the **Emakhandzambili** have not (cf. par 1.4.7) This implies that the contact between Pai and Swati may have happened much earlier and that the Pai was not part of the so-called Sotho clans that inhabited parts of Swaziland before the arrival of the Swati, cf the Mbuyane clan name that surfaces in Natal (cf. the reference in the Stuart Archives, par 1.4.6, 1.4.13), Swaziland (cf. Msimang's reference to the clans of the Bemdzabuko, par 1.4.7) and later in the erstwhile Eastern Transvaal (cf. Bornman's reference to Mbuyane as the ancestral headman of the Pai). This may add more weight to Msimang (1989) and Louw's (1987) statements regarding the ("non-existent") link between Sotho and Nguni and the possible closer and earlier link between Pai and Swati or even Pai and Zunda-Nguni.

1.4.15 One clan name that seems to be common amongst both the Pai and the Swati, is "*vaxaMasixu (bakaMasuku)*" (Ziervogel, 1954:11), although this name is not mentioned by Msimang. The clan name *Maseko* is mentioned as part of the *Emakhandzambili*, but according to Ziervogel they belong to a

different clan, yet it crops up in Bornman's writings as a name common to the Pai.

Then there is the "*vaxaNkêrê waMaxêrê (bakaFakudze)*" of whom Ziervogel says,

The Fakudze clan amongst the Swazi is well known, and has the *sinanatelo* "*Mntolo*" (baboon), while those of the Pai also had the baboon as totem. This may suggest a connection between them. (1954:12)

The Fakudze clan is also listed by Msimang (1989:45) as belonging to the 'Bemdzabuko', ie the true Swazi.

Other typical Swati names also appear, and at the time they were used by the Swati to refer to these Pai clans: *Mngwenya, Ngutjani, Lutfuli, Maphange, Mhlanga, Lukhuleni, Mbuyane, Mdluli*. According to a Swati colleague, many of these clan names are common in present day Swaziland. All this proves that,

In their customs the Pai are more Sotho than Nguni, but Swazi influence cannot be denied.

(Ziervogel, 1954:10)

However, if the facts outlined above are taken into consideration, it is not just 'influence' that is the issue here but *evidence* of contact that goes back to the pre-history of these two groups. Nevertheless, one may have to look beyond the historical facts to find the true connection, if there is any. The historical facts outlined above, as well as the linguistic evidence that will be under scrutiny in this study, may in fact indicate that the assumption of Van Warmelo (and with him Louwrens, Van Wyk and Ziervogel) that Pai is merely a "peculiar form of Sotho" is not as well-founded as it appears.

1.4.16 The fact that this study is one-sided in that it concentrates mainly on the Tekela-Nguni, and specifically the Swati evidence and *not* the Sotho or Tsonga connection, should however, also be taken into account (by other scholars interested in this subject) before a final conclusion can be reached.

1.5 General Introduction

1.5.1 Embarking on the description, analysis and comparison of languages, language forms, language varieties or dialects, implies that one has to take into consideration what these terms imply and what other linguists' observations are regarding them.

1.5.2 Chambers and Trudgill remark that,

paradoxically enough, a 'language' is not a particularly linguistic notion at all. ...it is clear that we consider Norwegian, Swedish, Danish and German to be single languages for reasons that are as much political, geographical, historical, sociological and cultural as linguistic. ...The term 'language', then, is from a linguistic point of view a relatively nontechnical term.

(C & T 1984:5)⁴

We can readily replace the languages in the above quotation with Zulu, Swazi or Xhosa, with Tswana, Northern Sotho or Southern Sotho. Usually, in classificatory terms, a language is considered to be a collection of mutually intelligible dialects. If however, we look at the languages quoted above, we find, like C & T (1984:4) in the case of the Scandinavian languages, that Zulu, Swazi

⁴ *Dialectology* by J K Chambers and Peter Trudgill (1984) will henceforth be referred to as C & T.

and Xhosa are mutually intelligible. The same applies to Tswana, Northern Sotho and Southern Sotho.

There are other factors that cloud this issue even further, and I refer again to the above quotation regarding 'language' as a non-linguistic notion. The following quotation from C & T applies directly to Southern Africa where similar situations exist:

Mutual intelligibility will also depend, it appears, on other factors such as listeners' degree of exposure to the other, their degree of education and interestingly enough, their willingness to understand. People, it seems, sometimes do not understand because, at some level of consciousness, they do not want to. A study carried out in Africa, for example, demonstrated that, while one tribe A claimed to be able to understand the language of another tribe B, tribe B claimed *not* to be able to understand language A. It emerged that group A, a larger and more powerful group, wanted to incorporate B's territory into their own on the grounds that they were really the same people and spoke the same language. Clearly, group B's failure to comprehend group A's language was part of their resistance to this attempted takeover.

(C & T 1984:4)

Furthermore we find that a certain group, speaking a certain language or dialect, would deny being able to speak or to know anything about that language or dialect. This often happens when such a group is in the minority within a certain area. Members of the larger group would refer derisively to the language of the smaller group and they in turn would be ashamed to acknowledge that they belong to that group because of the language they speak. These are all factors which have to be taken into account when a language variety is researched.

1.5.3 All these facts do not establish a consolidated foundation upon which a sound linguistic approach to the subject at hand can be based. They are of value

to the sociolinguist, or at the most, to the anthropologist. Their relevance, and that of sociolinguistics and anthropology, cannot be disregarded within the context of a linguistic description of a language form. Although the well-known work of Weinreich (1979) concentrates mainly on language influence and interference, he made the following observation in this regard:

But anthropologists seem to be growing more and more aware of the structuring of cultural elements as a force affecting their transfer, and on this point they naturally look for guidance to linguistics, "the oldest of the sciences dealing with culture", whose descriptive techniques have gained "an objectivity and a precision far beyond that produced by other sciences of culture". More specifically, anthropologists investigating acculturation are urged to include linguistic evidence, developed by the linguist, as indices of the total acculturative process; in the words of one distinguished student of acculturation, its linguistic aspects "offer unexplored potentialities" to the anthropologist. Linguists on their part need the help of anthropology to describe and analyze those factors governing linguistic interference which, though lying beyond the structure of the languages in contact, do fall within the realm of culture.

(Weinreich 1979:6)

In order to uphold the "objectivity and precision" of linguistics as heralded above, a clear description of the subject, in this case a language / language form / language variety / dialect, spoken by a small group of people in Eastern Mpumalanga should be formulated.

C & T (p. 5) say that, from a linguistic point of view, the term 'language' is "a relatively nontechnical term". They therefore employ the neutral term 'variety' in order to be "more rigorous in (their) use of descriptive labels". This term is then used to apply to "any particular kind of language we wish, for some purpose, to consider as a single entity". The term "single entity", seems to express the semantic content of their subject matter in a much better way. A

'single entity' implies a phenomenon (in this case *linguistic*) that can be identified not only by the users (speakers) but also by the observers (linguists).

1.5.4 The Bantu languages themselves provide us with a useful tool in this regard. The English equivalent of the lexical entry of a language variety or dialect, is not normally assigned the prefix of Class 7 (*isi-* or *si-* in the Nguni languages). These varieties are normally referred to as: 'they ndrondroza' - *bayandrondroza* (a language variety of South Ndebele); 'they tekela' - *bayatekela* (a language variety that replaces the Zunda *z* with *t*); 'they yeyeza' - *bayayeyeza* (a language variety assigned to the tribes that replace *l* with *y*). Semantically this implies that the people referred to, speak a VARIETY of an *acknowledged and generally accepted language* within the community.

However, when a language variety is assigned the Class 7 nominal prefix, it signifies a *different* group of people within the community whose speech form can be identified as a 'single entity'. The speech form of a specific group of people has now acquired a new status. It is no longer *a way/manner of speaking* (i.e. a verb), but *a language entity* (i.e. a noun). If these parameters are used, differences between languages, language varieties and dialects, can be clearly outlined. This is indeed the case with the subject at hand.

The fact that Pai is referred to by Swati speakers as *SiMbayi*, and by speakers of Pai as *HiPai*, both Class 7 nouns, indicates that we are dealing here with a 'single entity' which is not a 'variety', but a *language*. Furthermore, the language spoken is not entirely intelligible to neighbouring speech communities. This will be evident in the ensuing study where it will be pointed out that not only the sound systems of the languages (Pai and Swati) but also the vocabulary differ remarkably in certain instances. However, Pai cannot be called a 'uniform'

language in the normal sense of the word. It has been subjected too long to numerous outside influences and it is inevitable that certain sections of the speakers would tend to use language forms that are akin to neighbouring languages. Cf also the first quotation from Ziervogel (1954) in the next paragraph.

1.5.5 Apart from other linguistic evidence which will emerge from the ensuing study to support this point of view, the approach throughout this study will be that Pai is firstly an individual, independent *language*; and secondly that it has strong ties with neighbouring languages which may indicate a dialectal origin in its pre-history. In this regard Ziervogel (1954:14) makes the following remark:

It is at the same time evident that, in vocabulary at least, other influences, which have at present not been traced to their origin, had played a part in the evolution of this language. Cf. the following words which, to my knowledge, do not appear elsewhere:

-khôva (sit)	-khêla (dig)
-hingila (walk)	-khina (dance)
-aha (do)	-relexa (cook)
-pala (begin)	mukhwana (tomorrow)
-tzina (short)	mašôšô (lies), etc.

However, some of the terms above have affinities with Xhosa forms, eg **khova** (sit on haunches) and **khela** (to clear by cutting down).

It is also common among the Swati of erstwhile KaNgwane to refer to any strange or unknown forms in the speech of an individual as *SiMbayi*, while it may well be that it was Northern Sotho or Tsonga forms they have observed. This apparent confusion may be due to the fact that speakers of Pai sometimes use words of both Northern Sotho and Nguni/Tsonga origin. Ziervogel (1954:14)

quotes the following examples in this respect:

-*tšwa* and -*huma* (come out)
 -*nkxa* and -*nuha* (smell badly)
 -*rôva* and -*limêtsa* (hurt)
 -*xana* and -*ala* (refuse)
 -*tsoma* and -*funa* (seek)

The Swati equivalents of the above are -*phuma*, -*nuka*, -*limata*, -*ala* -*funa* respectively. Cf the IPA transcriptions of these forms:

P. fuma	>	Sw. p^huma ,
P. nufia	>	Sw. nuḵa ,
P. limets'a	>	Sw. limat'a
P. ala	>	Sw. ala
P. funa	>	Sw. funa

The last two forms, -*ala* and -*funa*, are identical in both Pai and Swati. These obvious similarities cannot be overlooked. Unfortunately the frequency of the Northern Sotho or the Nguni/Swati forms will probably never be established and the whole picture in this regard becomes rather hazy. On the subject of language change, Hoenigswald (1960:72) says the following in connection with the "Alleged Gradual Character of Phonetic Alteration", and his remark is perfectly applicable to the situation Pai finds itself in:

In the (almost) total absence of large-scale, questionnaire-supported observations which would have to be extended or repeated over generations of speakers in a community, such a picture can only be guesswork.

As will become evident in the ensuing study, the picture of the relationship

between Pai and Swati will not entirely be "guesswork". In many cases the "guesswork" will be substantiated by linguistic and/or historical facts.

1.5.6 This concludes the aim, the origin of the research material and the historical background of Pai as well as the above introduction. In the next section the speech sounds of Pai will be described in detail with comments and observations regarding the corresponding Swati forms.

CHAPTER 2

THE SOUND SYSTEM OF PAI

2.1 INTRODUCTION

2.1.1 Approach

Having discussed the research material in Chapter 1, a descriptive structural approach will be followed when the speech sounds of Pai are described in this chapter. Accepted current terminology will be used. Comments on certain phenomena, descriptions and comparisons will be based mainly on the following publications:

a) Ziervogel (1954)

The importance of this work cannot be under-estimated. Louwrens in the preliminary draft of his article (1987) underlines this when he comments on Ziervogel's work:

.... since it has never been elaborated upon by his successors, this volume remains the only comprehensive work on Hipai until now.

The material at hand will therefore be compared and tested against this most important work by Ziervogel for two reasons:

- * as a controlling mechanism to eliminate possible errors in the present data;
- * to indicate the 'possible' amount of change this language has undergone since 1954.

b) Msimang (1989)

This comprehensive study of the phonological aspects and the historical background of the Tekela-Nguni dialects provides a new perspective on the history of the Bantu languages of Southern Africa as a whole and the Nguni languages in particular.

c) Van der Spuy (1989)

A very useful work of reference where the Proto-forms of the languages of Southern Africa are concerned.

d) Personal observations and those of fellow researchers like Prof L J Louwrens of the Department of African Languages at Unisa and Prof J A Louw.

2.1.2 Methodology

The speech sounds under review in this thesis will be treated in the following way:

2.1.2.1 First the different speech sounds of Pai will be described phonetically. These descriptions will reflect the perspectives of Ziervogel (1954) and Louwrens (1987), personal observations, and of course the material at hand. Most of the material will be considered, but in this section only a limited number of examples will be used.

2.1.2.2 The examples will also be represented in bold in the 'ordinary' roman orthography, followed by the IPA transcription between phonetic brackets. Ziervogel's orthography will be taken into consideration and both Swati and Northern-Sotho orthographic symbols will be considered and combined to 'invent' a Pai orthography. This will be done along the following lines:

Vowels:

A five vowel system (i.e. Swati) is accepted as the norm - therefore phonetic [ɛ] will be **e**, and phonetic [e] and [i] will be represented by **i**; phonetic [ɔ] will be **o**, and phonetic [o] and [u] will be **u**. The disjunctive (NS) manner of writing is used. This will be followed by the IPA transcription and the corresponding Swati form in the standard orthography, followed in turn by the IPA transcription. The reason for this is mainly to make the correspondences, and differences, between Pai and Swati easier to observe.

Consonants:

Orthographic symbols that are common to both NS and Swati will be used. As will be clear later on, a number of Pai sounds cannot be rendered by existing orthographic symbols and a few adaptations had of necessity to be made. The 'invented' orthographic symbols will be pointed out when the consonants are described and not in the section on vowels, regardless of the fact that many will occur there.

2.1.2.3 The phonetic transcription of Pai examples attempts to follow the IPA as closely as possible but will also, in certain instances, reflect the approach of researchers on this dialect such as Ziervogel (1954), Van Wyk (1969) and Louwrens (1987). Transcription of Swati entries will follow the IPA as well as the symbols used in Taljaard & Snyman (1991) with the following exceptions:

(i) **Delayed breathy voicing**

Swati plosive and affricative consonants with "delayed breathy voicing" will not be indicated by the diacritic [◌̥] or [◌̜], currently used by Taljaard & Snyman (1991) and others in the Nguni linguistic field. This diacritic is the IPA symbol for devoiced consonants and will, for the sake of clarity, not be used. *Only* the *delayed breathy voiced* consonants (ie plosives and affricates) of Swati will be marked with the breathy voicing diacritic [◌̤] or [◌̜̤] and when these appear in a nasal compound they will not be marked at all. Neither Ziervogel (1954) nor Louwrens (1987) mentions this type of voicing in Pai, not even in what they consider to be direct

borrowings from Swati. The only reference to breathy voicing is in the research material where the voiced glottal fricative [ɦ] is described as having breathy voice. No breathy voicing diacritic will accompany this sound. The only place where this diacritic will be used is when the click sounds are described.

(ii) **Breathy voicing**

This type of voicing occurs in Swati with almost all voiced consonants and is normally indicated (as in Taljaard & Snyman (1991)) with [˗] or [˘] on the consonant and progressively on the following vowel. In this study the voiced consonants *other* than plosives and affricates will *not* be marked in the Swati examples. Vowels following such consonants (as well as vowels following the 'delayed' breathy voiced plosives and affricates) will therefore also *not* be marked for breathy voicing in the Swati transcription as is currently being done in the literature. As has been mentioned above, only breathy voiced plosives and affricates will be marked with [˗] or [˘] to simplify the transcriptions.

2.1.2.4 The phonetic data for the sub-section on vowels will then be analysed with comments on the phonological nature of certain phenomena. As will be seen from the ensuing description and discussion, phonetic and phonological characteristics and/or trends will not be treated separately since the one inevitably has a bearing on the other. Note that Swati equivalents of the Pai examples will be given wherever possible. When no (phonologically) similar

word can be found, a word with "some" similarities and having the same or comparable meaning will be provided preceded by "Cf" (to indicate that this is a form that may be considered for comparative purposes). Examples from Ziervogel (1954) will be preceded by "Z." and they will invariably be in his original italics followed in certain instances by my own IPA phonetic transcription. Swati examples are preceded by "Sw:" and Pai examples in tables by "P." The abbreviation "NS" will be used for Standard Northern Sotho, "B." for Meinhof's (1932) Ur-Bantu, "PB." for Guthrie's Proto-Bantu and "PSB" for Van der Spuy's (1989) Proto-Southern Bantu.

2.2 VOWELS

2.2.1 Introduction

Phonetically at least, Pai stands on two legs as far as its vowel system is concerned. According to other researchers, *inter alia* Ziervogel (1954) and Louwrens (1987), it is difficult to decide whether the language employs a five or a seven vowel system. This is understandable taking into consideration the area where this language is spoken, especially the proximity of Swati and Tsonga. Ziervogel (1954:15-16) distinguishes seven vowels, viz.

[i], [e], [ɛ], [a], [ɔ], [o], [u]
 Z. (i, e, ê, a, ô, o, u)

He points out that the replacement of [e] with [i] and [o] with [u] seems acceptable in all phonetic environments, but stresses that the opposite is not permitted. This observation clearly indicates the development of, or the existence of, a five vowel system. Louwrens (1987:18) concurs with this:

Variations between the vowels [i] : [e] and [u] : [o] occur on an extensive scale in Pai, which can be ascribed to the fact that the language is moving from a seven to a five vowel system.

In the research material at hand, there appears to be agreement with Ziervogel with regard to the point that Pai does indeed employ a seven vowel system like NS. The only difference seems to be that the mid-high vowels [e] and [o] are pronounced in a higher tongue position than in NS (according to Ziervogel). Ziervogel (1954:14) ascribes this to a dialectal difference within Pai as he quite clearly distinguishes two dialects, viz "Hikôtzêni" and "Hiruxu". Louwrens (1987:17-18) on the other hand can find no evidence of the two dialects mentioned by Ziervogel. Consequently one could conclude that the gap between

the mid-high Pai vowels [e] and [o] (as observed by Ziervogel and Louwrens) and the high [i] and [u] seems to have narrowed. This will be described in greater detail as the vowel system is investigated.

2.2.2 *The Pai Vowels*

2.2.2.1 [i] a high front vowel similar to its counterpart in NS and Swati, e.g.

hhingilije [fiŋgilije] 'walked'

-bitja [βitʃ'a] 'call' Sw: **-bita** [βit'a]

2.2.2.2 [e] a mid-high front vowel with the tongue in a higher position than in NS and higher than the raised [e] of Swati. Ziervogel (1954:16) calls this "a close front mid-vowel which derives from B. *i*", e.g.

muhhari [mofiare] 'headman'

hhasi [fiase] 'down/on the ground' Sw: **phansi** [p^hansi]

hahani [xaxane] 'bat' Cf Sw: **lilulwane** [lilulwane]

2.2.2.3 [ɛ] a mid-low front vowel similar to NS and Swati. This is the "ɛ" of Ziervogel (1954:16) which he calls "an open front mid-vowel which derives from B. *e*", e.g.

-lahleha [laɫɛxa] 'get lost' Sw: **-lahleka** [laɫɛka]

-laɫela [laɫ'ɛla] 'follow' Sw: **-landzela** [landzela]

-boleha [βɔɫɛxa] 'lend' Sw: **-boleka** [βɔɫɛka]

2.2.2.4 [a] a low central vowel similar to NS and Swati, e.g.

-lahla [lała] 'throw away' Sw: **-lahla** [lała]
-lapisa [lap'isa] 'cause to become hungry' Sw: **-lambisa** [lambisa]

2.2.2.5 [ɔ] a mid-low back vowel similar to NS and Swati, This is the "o" of Ziervogel (1954:16) which he calls "an open back mid-vowel which derives from B. o", e.g.

mukoko [mok'ɔk'ɔ] 'hide/skin of beast' Sw: **lugogo** [luğɔğɔ] or **sigogo** [siğɔğɔ]
-oma [ɔma] 'dry up' Sw: **-oma** [ɔma]

2.2.2.6 [o] a mid-high back vowel with the tongue in a higher position than in NS and higher than the raised [o] of Swati. Ziervogel (1954:16) calls this "a close back mid-vowel which derives from B. u", e.g.

busuhu [βosoxo] 'night' Sw: **busuku** [βusuɔu]
bakxulu [bakxholo] 'ancestors' Cf the similar word in Swati: **bakhulu** [βak^hulu] (The word for 'ancestors' in Swati is **bokhokho**).

2.2.2.7 [u] a high back vowel similar to NS and Swati, e.g.

-budjwije [βudɔwije] 'be ripe/cooked' Sw: **-vutsiwe** [vuts'iwe]

2.2.3 *Analysis of the Vowel Data*

2.2.3.1 According to the research material and Ziervogel's (1954:15-16) observation, the vowel [e] tends to be replaced by [i] in the same phonetic environment. He states that

Apart from roots this vowel (*e* or *i*) is found:

- (i) in the class prefixes *le-*, *he-* and *me-*;
- (ii) in the concords for classes *me-*, *le-* and *N-(9)*;

and he goes on to list four other instances where this occurs. The same applies to [o] and [u]. He cites the following:

Apart from roots this vowel (*o* or *u*) is found:

- (i) in the class prefixes *mo-*, *vo-* and *xo-* and their concords;
- (ii) in the verbal suffixes *-ola* and *-oxa*.

Apparently this happens without any change in meaning.

2.2.3.2 If this is the case, then [e] should be considered as an allophone of the phoneme /i/, and [o] as an allophone of the phoneme /u/. This is in contrast with Swati where the phone [e] is an allophone of the phoneme /ɛ/ and not of /i/. The phones [e] and [o] in Swati occur only in the environment of and preceding the high vowels [i] and [u]. This is definitely not the case in Pai where the high vowels do not raise the vowels [ɛ] and [ɔ] to [e] and [o] respectively. Cf the following examples and their Swati counterparts:

bjileḑu	[βjileḑu] 'chins'	Sw: tilevu [t'ilevu]
-hlonipha	[ḑonipha] 'respect'	Sw: -hlonipha [ḑonipha]

The vowels [e] and [o] of Swati are therefore not the same vowels as [e] and [o] of Pai as they each represent two different phonemes.

2.2.3.3 The existence of the phones [e] and [o] is confirmed not only by Ziervogel (1954) but also by Louwrens (1987) as cited above and we can conclude that Pai indeed uses 7 distinct vowel phones. Phonetically this would correspond exactly with the vowel system of Swati, but from the inconsistencies discussed above, it is clear that this is not so and that the occurrence of Pai mid-high vowels is not dependent upon the phonetic environment as is the case in Swati. However, in certain instances Ziervogel (1954:16), ascribes the compulsory use of the high [i] and [u] to the presence of another high vowel in a following syllable (the same process that causes vowel raising in Swati). He says:

However one finds in certain words that the interchange of the *u* and *o*, *i* and *e* is not allowed. In such cases the influence of an *i* or *u* (< B. *î* and *û* respectively) may be the reason;

e.g. [mujiseḑana] 'boy' instead of the expected [mojiseḑana]. Ziervogel on the same page gives examples of words apparently of Tsonga and Nguni origin where the same phenomenon occurs. He concludes that there are stems where "no reason at all for not having alternative forms is evident".

2.2.3.4 In support of this statement, three examples are used in par. 2.2.2.2 above to illustrate how the [ɛ], [e] and [i] fluctuate. Note that all three examples have [e] as the final vowel. Two of the examples are nouns. If the first one, [mofiare], is a deverbative, the terminative should be [i] according to the rules for Nguni. In the second example, [fiase], which is a descriptive, the final vowel again corresponds to the [i] of the Nguni [phansi]. This confirms the conclusion above that the [e] of Pai is an allophone of the phoneme /i/. However, the terminative of the third example, [xaxane], is similar to the Tekela [ɛ] of the diminutive suffix which may either appear as **-ana** or **-ane**, as in [luvemvane], and this represents another phoneme /ɛ/. Further morphological evidence suggests that the diminutive morpheme of Pai is similar to that of Swati in that both have the variant terminatives **-a** and **-e**, e.g.

hhiruwani	[firuwane] 'tamed animal'
mutsejani	[mots'edzane] 'cow in milk'
mujisenyana	[mujiseɲana] 'boy'

A logical conclusion would be that the phone [e] occurs as an allophone of /i/ in certain environments, but also represents a separate phoneme /e/ (in addition to /ɛ/ and /i/).

2.2.3.5 The examples Ziervogel has given to illustrate the interchange of the high and mid-high vowels, and his conclusion that there is an apparent lack of evidence to explain these interchanges, indicate a presupposition that Pai is indeed more closely related to the Sotho languages than to the Nguni languages.

This undoubtedly stems from the initial research by Van Warmelo (1935:111) into the pre-history of the so-called "Eastern Sotho" with his conclusion that, "It is merely a peculiar form of Sotho, ...". Ziervogel seems to have accepted this view and based his subsequent research on that assumption. This despite his intimate knowledge of Swati. In his description of the speech sounds and the morphology of Pai, Ziervogel recognises the similarities between Pai and Swati, yet he does not elaborate, only explaining these similarities as "borrowings" from either Tsonga or Swati. The main aim seemed to be to prove that Pai was indeed a part of the "Eastern Sotho." This is also the impression one gains from the classification of Van Wyk (1969) and the cursory overview of Louwrens (1989). The following examples can be used as a case in point:

2.2.3.6 On p. 16, Ziervogel (1954) gives the following examples of the use of [u] instead of [o] in borrowings from Swati and Tsonga (Ziervogel's Pai examples in italics have been replaced by standard IPA phonetic script):

mulungu	[muluŋgu] 'European',	instead of the expected form [molungu]
		Sw: umlungu [umlun̩gu]
-nuhha	[nufia] 'smell'	instead of the expected form [nofia].
		However, in the research material this item is listed as [nofia].
		Sw: -nuka [nuḱa]

On p. 17 of the same publication, Ziervogel gives examples of alternative forms that display no evidence of a reason (according to him) for the change from the

NS form:

mutzhu (person), Pedi *motho*
t'uša (take away), Pedi *tloša*
yini? (what?), Pedi *eŋ?*

Cf the following IPA transcriptions of these words (note that the retroflex is written with a cedilla, ʈ, in the ordinary orthography):

P.	muṣhu	[muʈ ^h u]	Sw:	umuntfu	[umuntf ^ʰ u]
	-tusha	[t ^ʰ uʃa]		-susa	[susa]
	yini	[jini]		yini	[jini]

The correspondence between the Pai and Swati high vowels is clear, yet they are not considered as "borrowings" from Swati. Cf also the following "Alternatives" listed by Ziervogel (1954:17):

loxa, luxa (plait)
voya, vuya (return)
mohela, muhila (tail)

P.	-luha	[loxa] [luxa]	cf. Sw	-eluka	[eluḵa]
	-buya	[βoja] [βuja]		-buya	[βuja]
	muhhila	[mohela] [muhila]		umsila	[umʃila]

The correspondence between the Pai and Swati vowels (and consonants) is again clearly evident.

2.2.3.7 A more plausible explanation of these correspondences between the Pai and Swati forms - and not merely treating them as borrowings - would be to see them as evidence of the transformation process taking place in Pai; a process of development and change from an earlier form (possibly closer to Swati) to the present form (possibly closer to NS).

2.2.3.8 Evidence of the irregularity of this process can also be seen in the following examples of Ziervogel (1954:17):

nêya (give), cf. Pedi *nea* and Kôpa *nêa*
vêya (put down), cf. Pedi *bea* and Kôpa *bêa*
ŋkl'ô and *ŋkl'u* (hut), cf. Pedi *ntl'o*
 but *itz'au* and *itz'ao* (place), cf. Swazi *indzawô*

cf. the phonetic transcription of these examples:

[neja] [nea] [nɛa] [βɛja] [bea] [bɛa]
 [ŋkl'ɔ] [ŋkl'u] [ntl'o] [itʃ'au] [itʃ'ao] [indzawɔ]

When the NS examples [nea] and [ntl'o] above, and their Swati counterparts, - **nika** [niɕa] and **indlu** [inɕu] are considered, the occurrence of the mid-low vowels [ɛ] and [ɔ] in Pai seems unexpected because both NS and the Swati have the high and mid-high vowels in that position. The opposite applies to the high [u] and mid-high [o] variation in Pai when in Swati the mid-low [ɔ] as in **indzawo** [indzawɔ] is used and one would not expect the high vowel to appear in Pai (note that the breathy voicing diacritic is not used in the presence of a nasal).

To add to the above evidence of the possible fluctuation of vowels in Pai, Ziervogel (1954:28) confuses the issue further when he discusses 'Mutual Influence of Sounds'. Under the heading, '**Raising of ê and ô:**', he says:

When *ê* and *ô* are succeeded by *i* < B. *î* or *u* < B. *û* and *e(i)* < B. *i* or *o(u)* < B. *u* they are raised and become close sounds, and are easily mistaken for close *e* and *o* respectively. In the following examples this raised *ê* and *ô* will be printed in bold print:

He then gives examples of where this happens and cites the following:

Locatives:

molap'ôni < molapô (river)

Verbal suffixes:

βônisa < βôna (see)

rêk'iwa < rêk'a (buy)

Negative ending:

ak'ik'êni (I do not enter)

The bold print is supposed to indicate a third variation of the front and back mid-vowels.

This may also be different type of vowel raising and these observations will be referred to again when vowel height in general is discussed.

2.2.4 Conclusion

2.2.4.1 D.L. Goyvaerts (1975:66), in discussing the causes of linguistic change, ponders the question of the regularity of phonetic changes. He refers to Jan Baudouin de Courtenay who pointed out that sounds as sense-data are a psychological reality to the community:

in the minds of a speaking group there is a psychological correspondent of the actual sound; this he called a "phoneme".

He continues,

Given this discrepancy between *sound* and *phoneme*, the task of the linguist must be, not to catalogue the sounds which physicists can register with their apparatus, but to enquire into the problem: which sounds are conceived as distinct by a community and which groupings of phonemes are possible there? (Goyvaerts, 1975:66)

According to Goyvaerts (1975:67),

The central thesis of diachronic phonology is that an opposition which is useful will tend to be retained longer than one which is not productive within the system."

This process of non-retention of certain items inevitably gives rise to changes in neighbouring sounds. However, these changes are subject to certain restraints because the system of the language must be preserved. He explains the changes in the following manner:

Starting from the phonetically verifiable fact that no phone is articulated twice in exactly the same fashion, we may assume that each phone has an optimum point of articulation around which there is what Martinet calls a *champ de dispersion*. Further there will be a safety margin separating the *champ de dispersion* of one phone from that of another. If a phone deviates regularly from its normal *champ de dispersion* one of two things may happen:

- (i) if it in no way endangers the *champ de dispersion* of its neighbours, no change will take place;
- (ii) if it does happen to endanger another phone, several things may happen. The two phones may merge or they may act like poles of a magnet and repel each other. This latter situation may engender re-structuring of the system. (Goyvaerts, 1975:67,68)

2.2.4.2 When this is applied to the situation in Pai, several conclusions can be reached:

- (i) The alternation of [e] and [i] and [o] and [u] does not endanger the *champ de dispersion* of [i] and [u], since the meaning does not change in those environments where alternation occurs and the status of /i/ and /u/ as single phonemes remains.
- (ii) However, if one takes the phones [i] and [u] as allophones of the phonemes /e/ and /o/ and of phonemes /i/ and /u/ respectively, the two [i] phones may merge, as well as the two [u] phones, drawing the respective phonemes /i/, /e/ and /u/, /o/ closer to the same position. The dividing line between the phonemes /e/ and /i/ on the one hand and /o/ and /u/ on the other therefore becomes less distinct. The result is that the mid-high vowels move closer to a high vowel while moving away from the mid-low phonemes /e/ and /o/, thus confirming the move away from a seven vowel system to a five vowel system.

2.2.4.3 The occurrence of the phones [ɛ], [ɔ] in similar environments as [e] and [o] (cf. par. 2.2.3.8), can only be ascribed to the fact that Pai is in a transition phase where the vowel system is concerned. The examples given by

Ziervogel (1954:17) cited above, appear only in a limited number of words and are therefore distinct in the minds of the speakers, cf the remark by Goyvaerts (1975:66) that the linguist should establish "which sounds are conceived as distinct by a community". The vowel system of Pai displays overlapping of phones, but the phonological structure still stays intact or is preserved in the minds of the speakers. The vowel sounds of Pai and Swati can therefore be represented in the following way:

	high front	mid-high front	mid-low front	low central	mid-low back	mid-high back	high back
Pai	i [i]	e	ɛ	a	ɔ	o	u [u]
	↑←	←				⇒	⇒↑
Swati		↓←	←		⇒	⇒↓	
	i	[e]	ɛ	a	ɔ	[o]	u

The vowels in square brackets in the Pai column indicate the raised variants of [e] and [o]. This illustrates the seven vowels of Pai plus the two variants (7 + 2 system). The vowels in square brackets in the Swati column indicate the raised variants of [ɛ] and [ɔ]. This illustrates the five vowels of Swati plus the two variants (5 + 2 system) with the vowel raising indicated.

2.2.4.4 As was clear from the foregoing discussion, the changing of [e] to [i] and [o] to [u] in Pai can only in certain cases be termed vowel raising - in general it seems more like "merging" of one vowel into the other. It is interesting however, to note that the vowel raising, if it may be called that, takes

place at different places in Pai and Swati. In Pai the mid-high *phonemes* /e/ and /o/ have allophones [i] and [u] that are similar to the phonemes /i/ and /u/ respectively; in Swati the *phonemes* /ε/ and /ɔ/ have the variants [e] and [o] respectively. The reason why the existence of an additional two phones is proposed, is based on the following. On p. 15, Ziervogel (1954) describes "e" as

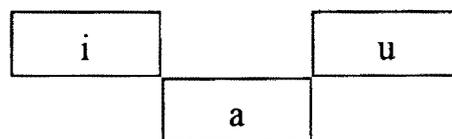
a close front mid-vowel which derives from B. *i*. Instead of this vowel a close front vowel *i*, perhaps slightly lower than the *i* of B. *î* is used. The difference between *i* < B. *i* and *i* < B. *î* is so slight that they need not be distinguished.

and on p. 16 he treats the vowel "o" in the same manner:

a close back mid-vowel which derives from B. *u*. Instead of *o* a close front vowel *u*, perhaps slightly lower than the *u* from B. *û* is used. The difference between *u* < B. *u* and *u* < B. *û* is so slight that they need not be distinguished.

This would imply that there are two additional phones [i] and [u] that are *allophones* of /e/ and /o/, which would follow the Swati pattern of a lower vowel having a higher variant. Cf also the acoustic findings of Kotzé (1995:68) on the raised variants of Lobedu where the vowel [e] (phoneme /e/) is raised to a position higher than [i] (phoneme /i/).

2.2.4.5 If we take the following three vowels as the primary vowels of these two languages:



then the next step would be the emergence of the two secondary vowels [ε] and [ɔ]. This process seems to have been completed in Swati and these two vowels

are well established as identifiable phones and also as independent phonemes, each one with its own raised variant which may point to its possible origin viz. the high [i] and [u] respectively. In Pai, however, this process is not yet complete, as can be seen from the foregoing data.

2.2.4.6 In a seven vowel system it is not easy to decide on distinctive features that would adequately and economically distinguish each vowel. The guidelines laid down by Lass (1989) have been considered. The feature [±mid] can be used as a fixed parameter. Although this feature is not a binary feature in the true sense of the word ([+mid] is fixed, while [-mid] may be either [+high] or [-high]), it allows for a fairly adequate description of the individual vowels in Pai. In combination with the features [±high], [±front] and [±back], the feature [±mid] can be used to describe the Pai vowel phonemes in the following way:

	-mid +high +front	+mid +high +front	+mid -high +front	-mid -high -front -back	+mid -high +back	+mid +high +back	-mid +high +back
Pai	i	e	ɛ	a	ɔ	o	u
Swati	i		ɛ	a	ɔ		u

2.2.4.7 Another possibility is to use the distinctive feature [±tense] as proposed by Sloat (1978:87-88) instead of the feature [±mid]. Van der Spuy (1989:viii) uses this feature together with [+mid] in his explanation of his use of phonological symbols. He classifies the vowels in the following way (the

vowels /i/ and /u/ have not been reproduced exactly as Van der Spuy, and I have therefore added the equivalent IPA symbols as well as the Proto-Bantu source vowels of Guthrie (1967) and those of Meinhof (1932) for greater clarity):

Van der Spuy		IPA	Guthrie	Meinhof
/i/	High tense front vowel.	/i/	*I	<i>î</i>
/i/	High front vowel, phonologically [-tns].	/e/	*I	<i>i</i>
/e/	Mid front vowel	/ɛ/	*E	<i>e</i>
/a/	Low central vowel	/a/	*A	<i>a</i>
/o/	Mid back vowel	/ɔ/	*O	<i>o</i>
/u/	High back vowel, phonologically [-tns]	/o/	*U	<i>u</i>
/u/	High tense back vowel	/u/	*U	<i>û</i>

2.2.4.8 However, on p. 7 Van der Spuy uses the feature

[+tns] to designate the half-closed mid vowels in the environment of a high vowel or a half-closed vowel in the following syllable.

Based on this condition, he comes to the conclusion that

/e/ and /o/ in these languages represent either half-closed or half-open vowels, depending on the vowel in the following syllable. (Van der Spuy, 1989:7)

The languages he refers to are Zulu, 'North Sotho', Venda and Tsonga. Since both Northern Sotho and Pai employ a seven vowel system and the feature [+tns] is only used to indicate so-called vowel raising, it does not meet the requirements for a more satisfactory classification of the Pai and Swati vowels, nor does his conclusion above correspond with his initial description of the seven vowels of PSB.

2.2.4.9 However, when he outlines the Proto-Bantu model to be used for comparative purposes, Van der Spuy (1989:90) uses the feature [+tns] to designate the super-high vowels *i (*I) and *u (*U); and [-tns] for the 'open' high vowels (*I and *U). This is in line with his initial explanation and therefore needs further investigation.

2.2.4.10 The implication is that, when the feature [\pm tns] is used and [\pm mid] is discarded altogether, another binary feature [\pm low] can now be introduced. The feature [-low], in conjunction with [-high], can then accommodate the mid-vowels, and [+low] can be used for /a/ as indicated in the table below.

	+tns +high +front	-tns +high +front	-low -high +front	+low -front -back	-low -high +back	-tns +high +back	+tns +high +back
Pai	i	e	ɛ	a	ɔ	o	u
Swati	i		ɛ	a	ɔ		u

This provides a more balanced classification of the vowel system of Pai (three features for each vowel) and is phonologically more correct as only distinctive features with clear, binary values are used.

2.2.4.11 In order to explain the usage of three distinct vowel sounds ([i], [e], [ɛ] and [u], [o], [ɔ] respectively) in what appears to be similar phonological environments (cf par. 2.2.3.4), one may need to have a look at language contact and maybe even at codeswitching, because the influence of Swati, Tsonga and Northern Sotho on Pai cannot be denied. The main problem where frameworks and models for codeswitching and language contact are considered, is that in the

Pai situation it is not yet clear which is the "host" and which the "guest" language (Kamwangamalu, 1989). Myers-Scotton (1993:255) calls this the ML (Matrix Language) and the EL (Embedded Language) in CS (Codeswitching) (she acknowledges that she borrows these terms from Joshi (1985)). However, in the present situation, we are confronted with a tri-lateral relationship with Pai in the middle and NS and Swati (and even Tsonga) on the sides.

2.2.4.12 A further complication of the issue is vowel description in general in the South African Bantu languages. Due to the age and in some cases poor quality of the sound recordings at my disposal, acoustic analysis could not be carried out satisfactorily. I therefore have had to rely on recent studies that have a bearing on the subject. In the description of the vowels of various Bantu languages (especially by South African linguists), one often comes across phrases such as the ones used by Ziervogel (1954): "a close front vowel *i*, perhaps slightly lower than the *i* of B. *i*" (my underlining). Van Wyk (1969), in his classification of the Sotho language group, states that tongue height of the mid-high vowels of the North-Eastern dialects (of which Pai is one), is higher than in typical Sotho. The latter statement was, however, confirmed by Kotzé (1995) in his acoustic analysis of the vowels of Lobedu.

Roux (1983) as quoted by Kotzé (1995:57), claims that up to 50% of phoneticians do not correctly distinguish the different qualities of [ɛ] and [ɔ] on the one hand and their respective raised variants on the other. He goes further and says that, "die realisasies van die foneem /e/ nie in 'n hoog-laag verhouding tot mekaar staan nie, maar wel in 'n voor-agter verhouding" . This

implies that, with a proper acoustic investigation, traditional terminology such as 'vowel raising' and 'slightly higher' or 'slightly lower' that refer to the vertical oral modification, may well have to change to refer to the horizontal oral modification, especially in the cases of so-called vowel raising. The exact, acoustic nature of the Pai vowels is not part of this study, but the comments above are used to indicate that this investigation, and the irregularities that have been observed in the present data, may be ascribed to incorrect auditory observations and presuppositions based on traditional views.

2.2.4.13 From the point of view of historical linguistics, one should look at the ancestor of all three languages in order to determine the position of Pai regarding its affinities with NS and Swati. Since this is also not the main aim of this study, historical and comparative linguistic evidence and/or postulations will only be considered to establish the relationship between Pai and Swati. The above classification of Pai vowels (phones and phonemes) is therefore based mainly on the argument that certain phonemes in certain environments are recognised by the speaker community as such (Goyvaerts, 1975:66) and is an attempt to reflect the present situation. It is an attempt to reflect the present situation of Pai.

However, the historical facts and other information that will come to light further on, may suggest that the process that has been described above is possibly moving in the opposite direction. If the premise that Pai has an Nguni core dating from its pre-history is accepted as fact, then the five-vowel system

should be taken as the basis for analysis. The present confusion and possible development of a seven-vowel system can then only be ascribed to later Sotho influence and not to Swati influence.

2.3 *CONSONANTS.*

The consonants are classified and described according to manner of articulation. Each group will be described according to place of articulation, front to back, from voiced to voiceless. In the research material the same pattern was followed. The description as it was recorded in the research material will therefore be used as a starting point and comments will follow afterwards. The classification and description will be in the following order:

- a) Plosives:
- b) Fricatives.
- c) Affricates.
- d) Nasals
- e) Approximants
- f) Click sounds.
- g) Nasal compounds

Ziervogel (1954:19-21) uses places of articulation for his classification. Comments on his terminology and his transcription will accompany this description where necessary. His classification will later be used for comparative purposes. Van der Spuy's (1989) PSB will only be used as a point of reference when the consonants of Pai and Swati are compared. The distinctive features of these consonants will not be included here, but will be part of the next chapter where affinities with B. are investigated.

2.3.1 *Plosives*

The phonetic transcription will follow the same guidelines as set out in par. 2.1.2. The phonetic data for each consonant will be listed together with corresponding Swati forms and with comments on the phonological nature of certain phenomena where necessary. The comments and comparisons following each sound will later be incorporated into a comprehensive comparison of the two languages.

2.3.1.1 [b] *a voiced, bilabial plosive.*

This sound and its description seem problematic within the Pai context. When the research was carried out, the conclusion was that it apparently only appears in borrowings. Ziervogel (1954:19) describes it as "a fully voiced bilabial explosive" and gives the example,

Z. *-bôla* [bôla] (rot) Sw: *-bola* [bôla]

This Pai form corresponds directly with Van der Spuy's (1989:40) PSB form. As will be seen later, the bilabial fricative [β] of NS (cf. βɔla) is also a common sound in Pai, yet here it appears as a plosive.

The other examples are:

libodlela	[leβɔʒɛla] 'bottle'	Sw: libhodlela [liβɔʒɛla]
hhibamu	[ɦibamu] 'gun'	Sw: sibhamu [siβamu]
bantji	[baptʃ'i] 'jacket'	Sw: libhantji [liβaptʃ'i]

Words, like the following examples, that contain nasal compounds with [b] are treated later in this thesis as separate sounds:

hhembe	[ɦɛmbɛ] 'shirt'	Sw: lihembe [liɦɛmbɛ] with a voiced variant lihhembe [liɦɛmbɛ].
mbongolo	[mbɔŋgolo] 'donkey'	Sw: imbongolo [imβɔŋɔlo]

These examples may, from a NS point of view, all be borrowings. This means that Ziervogel's example above, **-bola**, can only be a rare exception. Except for **mbongolo** and **hhibamu**, the others are borrowings from English and Afrikaans. When the NS equivalents are considered, it is clear that the Swati sound system (which is similar to Zunda) was used in the adoption process and the question, 'Why not the NS sound system?', can again be asked. Cf. the NS equivalents:

NS: **lepotlelo** 'bottle'
tonki 'donkey'
sethunya 'gun'
baki 'jacket' (from Afrikaans 'baadjie')

If these words are indeed borrowings, then the borrowing process took place via Swati, i.e. the Swati form of the borrowing has been adopted and not the NS form. The question needs also to be asked whether words like **imbongolo** and **sibhamu** were not part of a 'more' original Pai form that was closer to Swati, or maybe even closer to Zunda-Nguni.

Note also that all the Swati bilabial plosives in these examples of so-called borrowings are pronounced with breathy voice, even those preceded by a nasal (they are allophones of either the delayed breathy voice phoneme /b̤/ or the implosive /ɓ/). This poses another problem similar to the nasal compound [ŋg] I discuss further on. The existence of the breathy voiced /b̤/ in the Nguni languages is ascribed either to borrowings from other Bantu and non-Bantu languages or to the elision of a preceding nasal (Meinhof, 1932:86-87), cf also Van der Spuy's (1989) "cluster simplification". The fact is that there are two distinct, voiced bilabial plosive stops in Nguni: /ɓ/ and /b̤/, and as is clearly stated in Meinhof (1932:87), words with these sounds "have nothing to do with each other". Both of them change in nasal compounds and then they display similar phonetic characteristics, ie breathy voicing. In Pai there seems to be confusion where these sounds are concerned. This is typical of a sound in transition: **-bala** in Pai can apparently mean 'count' and 'write' (the tone of this

word has not been taken into account), while there is a clear distinction in Swati between **-bhala** 'write', and **-bala** 'count'. Ziervogel (1954:22) states that the voiced, bilabial fricative B. \underline{v}

remains: *vava* (be painful), *-ava* (divide), *-vop'a* (mould);

but then indicates that this sound may also occur as *b*

in *-bôla* (rot), *-basa* (be white), *-bala* (write)

which corresponds closely with the Swati implosive. This may indicate a sound with a dual character in Pai: on the one hand the fricative characteristic (of NS) is retained and on the other, the plosive characteristic of Nguni also exists. The distinction of this sound in different lexical items apparently rests entirely with speakers of the language (cf remarks by Goyvaerts (1975:66) on the perception of speakers regarding the status of speech sounds).

In the first set of examples of Ziervogel above, the normal shift (for NS and other languages) of B. \underline{v} (PB. *B) to [β] is observed, while in the second set of examples the normal shift of B. \underline{v} to Nguni [b] is evident. Van der Spuy (1989:39-40) postulates *b, "a voiced bilabial stop" for his PSB and quotes Nurse (1987:102) who pointed out that "there is doubt whether the Proto-Bantu phoneme presented as *b was a stop or a fricative". This would account for the occurrence of both [β] and [b] in Pai, but the delayed breathy voice [b̥] of Nguni (and in the Pai examples above) is not mentioned (Cf Meinhof's (1932:87, 100) remark above). There is no doubt that sounds similar to the breathy voiced plosives of Nguni exist in Pai and they have to be classified

There seems to be a regular (normal) correspondence here between the Pai bilabial ejective plosive and Swati prenasalised bilabial voiced plosive. Cf Van der Spuy's observation that,

Correspondence between a voiced sound in the other languages and a voiceless obstruent in North Sotho occurs regularly: (1989:42)

which makes this a typical Northern Sotho sound shift.

PSB *Nb → P. [p'] → Sw: [mb]

while the occurrence of [nt'] in the last example is probably a different derivation altogether.

2.3.1.3 [p^h] *a voiceless, aspirated, bilabial plosive:*

Z. *iphala* 'impala' Sw: **imphala** [imp^hala]

-phura [p^hura] 'fly'

The last example differs from the Sotho **-fofa** and the Swati **-ndiza** or even **-phapha** (cf. also the variant [p^huza] in Pai). This aspirated plosive sound is also considered to appear frequently in words "borrowed" from Swati and Tsonga. The examples are:

-hluphehha [ɬup^hɛɦa] 'be bothered' Sw: **-hlupheka** [ɬup^heɦa] 'suffer'

-hlonipha [ɬonip^ha] 'show respect' Sw: **-hlonipha** [ɬonip^ha]

maphoisa [map^hɔisa] 'policemen' Sw: **emaphoyisa** [ɛmap^hoyisa]

Of the so-called 'borrowed' words cited here, two are from Nguni origin: **-hlupheka** and **-hlonipha**, and the last one, **maphoisa**, from English or Afrikaans. In the Tekela languages, as described by Msimang (1989), there is a tendency to retain certain sounds of loan words when these sounds are part of the sound system of the larger Bantu language family. Pai seems to follow the same trend. Note that in **maphoisa** no glide is indicated between the [ɔ] and the [i]. As the use of [w] as a glide between vowels seems to be normal in Pai, it can be assumed that the glide [j] is also used. More so seeing that this is a borrowing from English via Nguni but in the research material the NS form was taken as the correct one.

PSB *Np → P. [p^h] → Sw. [p^h]

2.3.1.4 [tʰ]: This sound is described as *an ejective dental plosive*, while Ziervogel (1954:19) classifies it under "Alveolars", saying that it "is ejective and is often spoken slightly post-dentally" as in:

Z. *t'iva* 'know'

Cf Sw: **-iva** [iva] or **-ati** [at'i].

According to the IPA (1989) the correct transcription for this sound would then be [t̪]:

matino [mat̪'enɔ] 'teeth' Sw: **ematinyo** [emat'inyɔ]

miti [mit̪'i] 'villages' Sw: **imit'i** [imit'i]

The latter two forms of Pai and Swati correspond directly in that the Tekela substitution of **z** with **t** occurs regularly. Note that this voiceless plosive corresponds with breathy voiced /z/ in Zulu (Zunda) but has a /θ/ phoneme in NS (Van der Spuy, 1989:58).

PSB. ***gf** → P. [tʰ] → Sw. [tʰ]

2.3.1.5 [tʰ] This is described as *an aspirated dental plosive* while Ziervogel just says it is *an aspirated alveolar*:

Z. *mathatha* 'thick milk'

matholo [matʰɔlɔ] 'calves' Sw: **ematfole** [ematʰɔle]

Normally these sounds are also classified as alveolars, and it is again not clear why **t** and **th** are listed in the research material as dental. Ziervogel (1954:19) also classifies them as alveolar. If they are indeed dental, one would assume that the voiced counterpart **d** in the following section would also be dental. However, this is not the case. This seems odd, because there seems to be a tendency in Pai to move certain dental and alveolar sounds closer to the palatal area (cf the retroflexive consonants).

In the case of [matʰɔlɔ], Pai opted for the aspirated plosive of NS **sethole**, (or even of Zunda) instead of a labialised or affricativised form which would be normal in Swati in such a phonetic environment: **litfole**. It is possible that this

is the aspirated post-alveolar *retroflex* that was used: [ma^hɔ̄ɔ̄] and which has a fairly regular correspondence with the affricatised forms of Swati.

PSB. *t	P.	[t ^h]	→	Sw.	[tʃ ^h]
or		[t ^h]	→	Sw.	[tʃ ^h]

2.3.1.6 [d]: a *voiced alveolar plosive* that occurs in borrowed words. The only example where this sound occurs without a preceding nasal is

idolobeni [idɔ̄ɔ̄beni] 'in town' Sw: **edolobheni** [ɛɖɔ̄ɔ̄beni]

It is possible that this plosive is similar to the breathy voiced **d** of Tekela and Zunda. Its exact nature in Pai is not clear - as is the case with **bh**. The other examples all have a preceding nasal, cf nasal compounds further on.

P.	[d]	→	Sw.	[ɖ]
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2.3.1.7 [tʃ'] a *voiceless ejective post-alveolar retroflex plosive*:

khufɔ [k^huɬ'ɔ̄] 'mountain'

Ziervogel (1954:20) lists this as an aspirated, cerebral affricate in the same word:

Z. <i>ikhutzhô</i>	[ik ^h uɬʃ ^h ɔ]	
kiɕima	[k'it'ima] 'run'	Sw: -gijima [gidʒima]
likaɕa	[lek'aɬ'a] 'egg'	Sw: licandza [lijandza]

The term 'post-alveolar' is used in the research material, and the manner of articulation is defined as retroflexive. Furthermore, these 'retroflexive plosives,' are described as having discernable friction at the point of articulation which gives the plosives an affricative character. This would bring them closer in character to the affricatised alveolar plosives of Swati where the friction is often hardly discernable. The post-alveolars or retroflexive plosives referred to here, often occur in the same phonetic environment as the plosive phonemes of Zunda which become either affricativised or labialised or both in Tekela. It is therefore possible that the influence of Swati has indeed changed these plosives to affricates.

P.	[t']	→	Sw.	[dʒ]
PSB. *Nd		↘		[ndz]

2.3.1.8 [t^h] *an aspirated post-alveolar retroflex plosive:*

maɕhe	[maɬ ^h ɛ] 'saliva'	Sw: ematse [emats ^h ɛ]. Here there is a closer correspondence between Pai and Swati ematse ; cf NS mare .
muɕhu	[moɬ ^h o] 'person'	Sw: umuntfu [umunt ^h u]
ɕhapo	[ɕap ^h ɔ] 'rope'	Sw: intsambo [ints ^h ambo]

PSB. *t	P.	[[^h]	→	Sw.	[nts ^h]
			↘	→	[ntf ^h]

2.3.1.9 [ɖ] *a voiced, post-alveolar, retroflex plosive.*

This retroflex occurs only preceding the high front vowel [i] and the high back vowel [u].

ngweɖi [ŋweɖi] 'moonlight' Sw: **inyeti** [ijet'i]

The translation given in the research material is 'moon', while in Nguni the corresponding form means 'moonlight'. This also corresponds to the NS **kgedi** for 'moonlight' and the PSB form of Van der Spuy: **mwedFi**.

maɖi	[maɖi] 'blood'	Sw: ingati [ingat'i]
moɖisi	[moɖisi] 'herd boy'	Cf Sw: umelusi [umelusi]
ɖune	[ɖune] 'you' (plural)	Cf Sw: nine [nine]
bjileɖu	[βjileɖu] 'chins'	Sw: tilevu [t'ilevu]

This is the same sound that Ziervogel classifies as a "cerebral". This term apparently originated with Van Warmelo in his translation of Meinhof (1932:6):

If the tip of the tongue is pushed still further back (*ie from the alveolus*) to the hard palate, so-called cerebral sounds are produced, a name due to the misunderstanding of a technical term.

although it is not clear what is meant by the "technical term". Ziervogel

2.3.1.11 [k'] *an ejective velar plosive:*

huku [fɪok'o] 'fowl' Sw: **inkhukhu** [iŋk^huk^hu]

kokwani [k'ɔk'wane] 'grandparent' Sw: **khokho** [k^hɔk^hɔ]

cf. diminutive **khokhwane** [k^hɔk^hwanɛ]

PSB. *k → P. [k'] → Sw. [k^h]

2.3.1.12 [k^h]: *an aspirated velar plosive* that apparently occurs in the same environments as the ejective [k'] above:

-khela [k^hɛla] 'harvest' cf. NS **-buna**, SS **-kotula**, Tswana **-roba** and Swati **-vuna**.

hhikhwama [fik^hwama] 'pocket' Sw: **sikhwama** [sik^hwama]

-khoba [k^hɔβa] 'sit' cf. Zulu: **khobo** (ideophone for bending down) **-khobela** (bow down before).

PSB. *k → P. [k^h] → Sw. [k^h]

2.3.1.13 [g]: *a voiced velar plosive.*

According to the research material, this plosive occurs mainly in words of non-Sotho origin. However, in the examples cited, a word like [geba] does

occur. The Nguni word with a similar meaning is **-bhodla**, which corresponds far less with the Pai form than the NS **-kgeba**. Ziervogel (1954:21) gives "*higôvôlô* (seat)" as an example.

-geba	[geba] 'belch'	
-ganya	[gana] 'be rich'	Sw: -ganya [gana] 'strike it rich'
gozola	[gozola] 'bridegroom group leader'	Sw: gozolo [gʊzɔlɔ] 'messenger of the bridegroom group', Cl 1(a).

The other examples in the research material are nasal compounds that will be treated later, together with this sound, in greater detail.

P. [g] → Sw. [g̊]

2.3.1.14 [kʰ]

According to the research material this sound, as well as the aspirated variation, represent the most striking features of the Pai consonant system. Again this is probably seen from a NS point of view. This sound is described as *an ejective, oral-lateral velar plosive*. From my own observation, the need for an alternative term such as "oral-lateral" seems justified because of the following reasons: This sound is lateral and seemingly has a point of release somewhere at the palate. It is also velar, and plosive, yet it is clearly distinct from the

ejective, velo-lateral affricate [kɽ] of Nguni (cf. also the description of this sound in the section on Ur-Bantu, par 3.11.10) It also seems to alternate regularly with the voiced and voiceless *alveolateral* fricatives [ɽ] and [ɽ̥] of Swati where no occlusion of the airstream occurs. Instead of including all these different places of articulation in the description, the term 'oral-lateral' seems to be an acceptable alternative. In Swati the voiced fricative appears stem-initially only with nouns of Classes 9 and 10:

klela [kɽ'ɛla] 'road'

Sw: **indlela** [inɽɛla]

-klupulela [kɽ'up'ulela] 'divide food'

Sw: **-hlephulela** from the base form

-hlephula meaning 'break off'.

P. [kɽ] → Sw. [nɽ]

↘ → [ɽ]

2.3.1.15 [k^h] an aspirated, oral-lateral, velar plosive

-khalihha [k^halifa] 'become clever'

cf. Sw: **-hlakanipha** [ɽakanip^ha].

Although the meaning here is the same, the Pai form corresponds more with **-khalipha** 'become sharp' and can semantically be related. The initial stop consonant [k^h] then corresponds with the aspirated version of this Pai plosive.

-klhaba [kl^haβa] 'stab' Sw: **-hlaba** [ɭaβa]. This example shows the opposite of the observation above. Other examples where this inconsistency occurs frequently, show that, although there is a clear distinction in Pai between the ejective oral-lateral velar plosive and the aspirated oral-lateral velar plosive, the corresponding forms in Swati vary from the alveo-lateral fricative [ɬ] to the aspirated velar plosive [k^h]. Cf the following examples:

-klhoma [kl^hɔma] 'thrust upright'

Sw: **-hloma** [ɭɔma]

-klhoklhobala [kl^hɔkl^hɔβala] 'squat'

Sw: **-khokhobala** [k^hɔk^hɔβala]

P. [kl^h] → Sw. [ɬ]
 ↘ → [k^h]

2.3.2 *Fricatives*

As will be evident from the data below, Van der Spuy (1989) postulates only affricates for his PSB. On p. 55 he says, "the proto-form is reconstructed as a (voiced) affricate with an assimilating fricative element," and he follows this method throughout. It is also clear from the data that most of the PSB forms have fricative attestations in Pai and Swati.

2.3.2.1 **[β]** *a voiced, bilabial fricative:*

kulube	[k'oloβε] 'pig'	Sw: ingulube [ɪŋguluβε]
hhishuba	[hiʃuβa] 'chest'	Sw: sifuba [sifuβa]
Z. -vava	'be painful' [βaβa]	Cf Sw: -baba [βaβa]

PSB. *bF → P. [β] → Sw. [β]

Cf B. *ya as in P. [fiitʃ'iβa] 'pond' and in Sw. [sit'iβa].

2.3.2.2 **[βʲ]**: *a voiced palatalised bilabial fricative:*

Z. *byêla* 'tell'

-bjela	[βʲɛla] 'tell'	Sw: -tjela [tʃ'ɛla]
bjanyi	[βʲaɲi] 'grass'	Sw: tjani [tʃ'ani]
bjala	[βʲala] 'beer'	Sw: tjwala [tʃ'wala]

The last two Swati examples suggest that this sound is the result of palatalisation that took place during the process of prefixation: **bu** + **ala** > **bwala** > **tjwala**. In Pai only partial palatalisation took place in that the original consonant **b** remains but becomes palatalised. This happens when the prefix [βo] is used with vowel verb stems. Since this sound occurs elsewhere in the language, it is recognised as an individual sound.

P. [βʲ] → Sw. [tʃʲ]

2.3.2.3 [v]: a voiced, labio-dental fricative:

It also occurs in "loan-words only" :

-vuma	[voma] 'sing'	The only corresponding form - to prove that this is a "loan-word" - that I could find is the Xhosa -vuma that means the same and the Zulu -vumela that means 'sing accompaniment'. For the gloss 'agree' the Swati form is identical: vuma, but the derivation is probably different, cf Van der Spuy (1989:146): *dFumela.
mmova	[mova] 'car'	cf. Sw: imoto [imot'ɔ]

The last example apparently is an alternative for the more common (NS)

[m'ot'orek'are].

P. [v] → Sw. [v]

2.3.2.4 [f]: *a voiceless, labio-dental fricative:*

This sound also occurs in so-called 'loan-words' from Swati:

-funa [funa] 'seek/want' Sw: **-funa** [funa]

-fana [fana] 'be alike' Sw: **-fana** [fana]

but

-fura [fura] 'chew' Cf. Sw: **-hlafuna** [lafuna] where only the last four sounds of the Swati word display similarities to the Pai form.

PSB. *pF P. [f] → Sw. [f]

2.3.2.5 [z]: *a voiced alveolar fricative*

This is also said to occur in "loan words":

-thandaza [t ^h andaza] 'pray'	Sw: -thandaza [t ^h andaza]
nkunzi [ŋk'unzi] 'bull'	Sw: inkunzi [iŋk'unzi]

It is interesting to note that, except for the initial retroflex sound in Pai, the Zunda (Zulu) forms are adopted *in toto* as in Swati, ie without any changes to the [k'] (→ [kh]), the [d] (→ [dz]) and [z] (→ [t']) as would be expected in Tekela. Van der Spuy (1989:48) postulates *j for this sound and finds that in both Zulu and Zezuru, a Shona (of Zimbabwe) dialect, the attestation is the fricative /z/. However, in Swati (and in some Pai words) this form is normally /t/ that in turn corresponds to the Tsonga attestation. PSB *j would therefore have:

P.	[z]	→	Sw.	[z]	or
	[t']	→		[t']	

2.3.2.6 [s]: *a voiceless alveolar fricative:*

-lapisa [lap'isa] 'cause to become hungry'	Sw: -lambisa [lambisa]
-libisi [leβisi] 'milk'	Sw: lubisi [luβisi]
mmusa [mɔsa] 'government'	Sw: umbuso [um'buso]

PSB. *tF or *kF P. [s] → Sw. [s]

2.3.2.7 [sw] *a voiceless labialised alveolar fricative:*

-swa [swa] 'burn'	Sw: -sha [ʃa]
-swa [swa] 'young/new'	Sw: -sha [ʃa]
-swehhela [swɛɦela] 'sweep'	Cf Sw: -shanyela/-tsanyela [ʃapɛla]/[ts'apɛla]

Ziervogel does not identify this as an individual sound and it is also not listed as a separate sound (or phoneme) for NS by Kotzé (1988:102). However, since it phonologically corresponds to the Swati [ʃ], it will be accepted as an individual sound. This is confirmed by Van der Spuy (1989:28) who lists this as PSB *pw, with sw for NS in his comparative series, and says that

the majority of these sounds have two points of articulation: bilabial and alveolar.However there is the problem of the Zulu form, which is palatal.

PSB. *pw → P. [sw] → Sw. [ʃ]

2.3.2.8 [t] *a voiceless, alveo-lateral fricative:*

Z. <i>ihlôxô</i> 'head'	Sw: inhloko [inɫɔkɔ]
buhlalu [βuɫalo] 'beads'	Sw: buhlalu [βuɫalu]
bohle [βɔɫɛ] 'all'	Cf Sw: bonkhe [βɔŋkʰɛ]

PSB. *c P. [t] → Sw. [t]

2.3.2.9 [z] a voiced post-alveolar fricative:

This sound occurs as a variant of [r].

-phuža	[p ^h uža]/[p ^h ura] 'fly'	No corresponding forms could be found, cf Swati -ndiza , NS -fofa or the alternative -phapha in Swati and Van der Spuy's PSB *papa (1989:147).
-apaža	[ap'aža]/[ap'ara] 'dress'	Cf Swati -gcoka and NS -apara .

According to Ziervogel (1954:20-21), the "z is a cerebral, voiced sibilant" consonant which is characteristic of Hikôtzêni while the rolled [r] is typical of Hiruxu.

Z. **-zatza / -ratza** 'like' [zɑʃ'a] Sw: **-tsandza** [ts'andza]

No evidence of dialects of Pai could be found during the research trip in 1984. Even the names 'Hikôtzêni' and 'Hiruxu' were not familiar to the Pai informants. Louwrens (1987:17) also classifies this sound together with the so-called "post-alveolar retroflexes" [ʈ] and [ɖ].

P. [z] → Sw. [ts'] Cf B. **ta*

2.3.2.10 [ʃ] *a voiceless, prepalatal fricative:*

According to Ziervogel (1954:20), this is also an alveolar with "Rauschlaut" which is "not palatal as in Nguni". This term is described in Meinhof (1932) and I am going to include the description of the "cerebral sibilants" in order to give a clearer picture of the nature of these sounds (as perceived by Ziervogel):

If the tongue is drawn back a little from the alveolar point of articulation, the groove in the tongue becomes broader and the sound is then more similar to English *sh*. We call these sounds cerebral sibilants, *ʃ*, *ʒ*.

If the groove in the tongue is made still broader, so that the air does not strike the middle incisors in a narrow jet, but strikes all the front teeth in a broad stream, a kind of rushing sound results, called in German "Rauschlaut". It may accompany an alveolar, cerebral and palatal articulation,

(Meinhof, 1932:7)

The standard IPA symbol for the postalveolar fricative is used since it is not necessary to distinguish it from other, similar sounds in similar environments.

bushika	[βoʃik'a] 'winter'	Sw: busika [busika]
husheni	[xoʃeni] 'in the morning'	Sw: ekuseni [ekuseni]
kxhoshi	[kx ^h oʃi] 'chief'	Sw: inkhosi [iŋkhosi]

PSB. *tʃ or *kʃ → P. [ʃ] → Sw. [s]

2.3.2.11 [ʃw] *a voiceless, labialised prepalatal fricative:*

As in the case of sw, this sound is listed as one sound here purely on the

grounds of the Swati counterpart which is not a compound phoneme and it does not imply that other combinations of a consonant and a semivowel are also considered to be one sound.

- shwa** [ʃwa] 'die' Sw: **-fa** [fa]. It is interesting to note that this form is closer to Sesotho [ʃwa] and Tswana [swa] than to NS [hwa].
- bushwa** [βuʃwa] 'porridge' Cf Tsonga and Venda **vuswa**.

PSB. *pF → P. [ʃw] → Sw. [f]

2.3.2.12 [x] a voiceless, velar fricative:

- hula** [xola] 'grow' Sw: **-khula** [k^hula]
- hule** [xolɛ] 'far' Sw: **kudzeni** [kudzeni] cf the Zulu **kude** that shows more correspondences: [kudɛ] where the /l/ interchanges with /d/ as is normal for Sotho and Nguni.
- haja** [xaja] 'home' Sw: **likhaya** [lik^haja]

PSB. *k P. [x] → Sw. [k^h]
 ↘ → [k]

Cf B. *ka as in P. [xa] 'scoop' and in Sw. [k^ha].

2.3.2.13 [f̥] *a glottal vocalic consonant with breathy voice.*

This is the only place where reference is made to breathy voice, and one could assume that it also occurs with some of the voiced plosive consonants of Pai since it is a prevalent feature of such sounds in Swati. More will be said about this in chapter 3.

-lahha	[laf̥a]	'heal'	Sw: -elapha	[ɛlap ^h a]
muhhila	[mof̥ila]	'tail'	Sw: umsila	[um̥sila]
-belehha	[βelef̥ɛna]	'give birth'	Sw: -beleka	[βelek̥a]
muhhinyi	[mof̥ijini]	'handle'	Sw: liphini	[lip ^h ini]

P.	[f̥]	→	Sw.	[p ^h]	Cf B.	*pa and *pi
			↘→	[s]	Cf B.	*kî
			↘→	[k̥]	Cf B.	*ka

2.3.3 *Affricates*

2.3.3.1 [pf̥'] *an ejective, denti-labial affricate.*

Ziervogel (1954:19) describes it as

an ejective labiodental affricate commencing on bilabial *p* going over into denti-labial *f*: *ipf̥'ula* (rain).

pfula	[pf'ula] 'rain'	Sw: imvula [imvula]
-pfuhha	[pf'ufa] 'wake up'	Sw: -vuka [vuɕa]
-pfuna	[pf'una] 'harvest'	Sw: -vuna [vuna]

The form *ipfula* given by Ziervogel is the copulative form (Louwrens 1987:17). This form in Pai corresponds with the voiced PSB affricate *bF and the Tsonga attestation /pf/.

PSB. *bf P. [pf'] → Sw. [v]

2.3.3.2 [pʰ] *an aspirated, labialised prepalatal affricate:*

-psha	[pʰa] 'dry up'	Cf Sw: -sha which may be a corresponding form, or Zulu -phusa 'go dry'. Van der Spuy (1986:29) lists this as PSB *Npw but also finds only one attesting word viz NS [pʰa].
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PSB. *Npw P. [pʰ] → Sw. [ʃ]

2.3.3.3 [ts'] *an ejective alveolar affricate:*

litsatsi	[lets'ats'i] 'day/sun'	
-tsuma	[ts'oma] 'seek'	Cf Sw. -funa [funa]
hlatsi	[hats'e] 'fish'	Sw. inhlanti [inlant'i]

Apparently this is not related to the Swati reflex /ts/ (and Zulu /th/) of PSB *t that occurs only before front vowels and /a/ but appears to be an independent phoneme. However, when the Swati form is considered, it may have affinities with the Tekela *t* that is used for the Zunda *z*.

P. [ts'] → Sw. [nt'] → Zulu [z]

2.3.3.4 [ts^h] *an aspirated alveolar affricate:*

tshaḍi [ts^haḍi] 'female animal' Cf Sw: **-sikati** [siḱat'i]

tshipi [ts^hip'i] 'iron' Sw: **insimbi** [insimbi]

P. [ts^h] → Sw. [s]

2.3.3.5 [dʒ] *a voiced alveo-palatal affricate*

This sound alternates with the plosive [dʒ]:

lijaha [ledʒaxa] 'young man' Sw: **lijaha** [lidʒaxa]

-ja/dja [dʒa] / [dʒa] 'eat' Sw: **-dla** [ḱa]

Ziervogel (1954:20) says 'dž is like English *j* in "judge"', but classifies it as an 'Alveolar with "Rauschlaut"'. According to the description, this would be the

same sound as the Swati alveo-palatal (post-alveolar) affricate [dʒ], and again, no mention is made of breathy voicing that is particularly strong in this instance in Swati. Ziervogel states clearly that,

These sounds are not palatal as in Nguni, consequently the nasal of the nasal compound is not palatalized.

(Ziervogel, 1954:20)

P. [dʒ] → Sw. [dʒ]
 ↘ → [ɟ]

2.3.3.6 [tʃʰ] an ejective, prepalatal (post-alveolar) affricate.

Ziervogel (1954:20) calls it an ejective alveolar affricate with "Rauschlaut".

Z. *-vitša* [βitʃʰa] 'call'

Sw: **-bita** [bitʰa]

-haratja [xaratʃʰa] 'bother'

Cf Sw: **-khatsata** [khatsʰatʰa]

Here the Tekela alveolar plosive [tʰ] appears as a palatal affricate in Ziervogel's example.

P. [tʃʰ] → Sw. [tʰ] Cf. B. *yila*

2.3.3.7 [tʰ] *an aspirated, prepalatal (post-alveolar) affricate.*

Ziervogel (1954:20) calls it an aspirated alveolar affricate with "Rauschlaut".

Z. <i>itšhwêna</i>	[itʰwɛna]	'baboon'	Cf Sw: imfene	[imfɛɛ]
-tjhela	[tʰɛla]	'pour in'	Sw: -tsela	[tsʰɛla]
metjhisa	[mɛtʰisa]	'matches'	Sw: umetjiso	[umɛtʰisɔ]

In the second example the Tekela reflex /ts/ of PSB *t occurs as /tʰ/ in Pai. In the last example (a borrowing) the sounds in Pai and Swati are almost identical.

PSB. *t	→	P.	[tʰ]	→	Sw.	[tsʰ]
			↘	→		[tʰ]

2.3.3.8 [kxʰ] *an aspirated, velar affricate:*

kxhomu	[kxʰɔmu]	'head of cattle'	Sw: inkhomo	[iŋkʰɔmɔ]	Cf the Sumayela Ndebele (also a Tekela language) [kxʰɔmɔ].
kxhoshi	[kxʰɔʃi]	'chief'	Sw: inkhosi	[iŋkʰosi]	

PSB. *Nk	→	P.	[kxʰ]	→	Sw.	[ŋkʰ]
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2.3.4 *Nasals*

2.3.4.1 [m] *a voiced, bilabial nasal:*

tshimu	[ts ^h imo] 'land/field'	Sw: insimi/insimu [insimi/insimu]
-ruma	[roma] 'send'	Sw: -tfuma [tf'uma]

P. [m] → Sw. [m]

2.3.4.2 [ᵐ] *a voiced, syllabic, bilabial nasal:*

mmani	[ᵐane] 'mother'	Sw: make [maᵑe].
mmala	[ᵐala] 'colour'	Sw: umbala [uᵐbala] The syllabic nasal and bilabial plosive of Swati is replaced by a syllabic nasal only in Pai.

P. [ᵐ] → Sw. [ᵐ]

2.3.4.3 [n] *a voiced, alveolar nasal that can also be syllabic*

-bona	[βona] 'see'	Sw: -bona [βona]
nama	[nama] 'meat'	Sw: inyama [inama]
nni	[ni] 'I'	Sw: ngi- [ŋi]

P.	[n]	→	Sw.	[n]
	↘	→		[ɲ]
	↘	→		[ŋ]

2.3.4.4 [ɲ] *a voiced, palatal nasal*

munyako	[mɔɲak'ɔ]	'door'	Sw: umnyango	[um'ɲaŋɔ]
bjanyi	[βɲani]	'grass'	Sw: tjani	[tʃ'ani]
manyombosi	[maɲɔmbose]	'the Swati people'		

P.	[ɲ]	→	Sw.	[ɲ]
	↘	→		[n]

This palatal sound in Swati also interchanges with the velar nasal [ŋ] in Pai (Cf. next par).

2.3.4.5 [ŋ] *a voiced velar nasal*

mungwaha	[moŋwaxa]	'year'	Sw: umnyaka	[um'ɲaka]
ngaka	[ŋak'a]	'herbalist'	Sw: inyanga	[iɲaŋa]
-shungwana	[ʃuŋwana]	'find'	Cf Xhosa: -fumana	[fumana]

P.	[ŋ]	→	Sw.	[ɲ]
	↘	→		[m]

2.3.5 *Approximants*

2.3.5.1 [w] *a voiced, labio-velar semivowel*

Z. -wa [wa] 'fall'	Sw: -wa [wa]
-wela [wela] 'cross a river'	Sw: -wela [wɛla]

P. [w] → Sw. [w]

2.3.5.2 [l] *a voiced, alveolateral approximant.*

Ziervogel (1954:21) only says that this sound is 'pronounced as in Swazi'.

-fhwala [tʰwala] 'carry'	Sw: -tfwala [tʰwala]
-tala [t'ala] 'become full'	Sw: -gcwala [ǰwala]
-pala [p'ala] 'begin'	Sw: -cala [ǰala]
-sila [sila] 'grind'	Sw: -sila [sila]

Note the differences and correspondences in the initial sounds:

[tʰw] : [tʰw] [t'] : [ǰ] [p'] : [ǰ] [s] : [s]

P. [l] → Sw. [l]

2.3.5.3 [r] a voiced, rolled alveolar trill

This sound alternates with [z].

-hhara [fiara] 'hold'

maropo [marop'o] 'intestines' Cf Sw: **ematfumbu** [emat^humbu]

The examples in the research material have no obvious corresponding forms in Swati, but the two given by Ziervogel (1954:20) have:

Z. *-ratz'a* [ratʃ'a] 'like' Sw: **-tsandza** [ts'andza]

Z. *mašura* [maʃura] 'fat' Sw: **emafutsa** [ɛmafuts'a]

PSB. *t P. [r] → Sw. [ts']

2.3.5.4 [j] a voiced, palatal semivowel

Z. *-ya* [ja] 'go' Sw: **-ya** [ja]

boya [βɔja] 'wool' Sw: **boya** [βɔja]

-beya [βɛja] 'put down' Sw: **-beka** [βɛka]

-bulaya [βolaja] 'kill' Sw: **-bulala** [βulala]

P. [j] → Sw. [j]

↘ → [k]

↘ → [l].

The occurrence of the glide in the final syllable of the last example may be attributed to the phenomenon of *yeyeza* - the replacement of *l* with *y* - that is common in a number of Bantu languages and in fact this speech form is used among a group of people in Swaziland. The occurrence of the glide in **beya** seems odd and is commented on again in par 3.3.1.2.

2.3.6 *Click Sounds*

Only two click sounds, a voiceless and a voiced one, occur in Pai. Ziervogel (1954) has no reference to click sounds and one could assume that this is a later development due to the influence of Swati. In the research material the voiceless click is transcribed as [ʔ], indicating ejection. This was the convention Van Wyk (1977:154) used for this click sound at the time and the diacritic is also used by Louw (1997) for what he calls the ejective click. The clicks are also classified as alveolars while in the other languages that have clicks, these clicks are considered to be more dental than alveolar.

2.3.6.1 [ʔ]: *a voiceless ingressive alveolar click.*

fecela [fɛ|ɛla] 'scorpion'

Sw: **fecele** [fɛ|ɛlɛ] Cf Zulu **ufezela** and NS **phepheng**.

-cosha [ɔʃa] 'chase away'

Sw: **-cosha** [ɔʃa]

icumbi [i|umbi] 'a heap'

Sw: **incumbi** [iŋ|umbi]

P. [] → Sw. []

2.3.6.2 [ǀ] *a voiced ingressive alveolar click.*

This sound apparently also occurs in "loan words" only. If that is the case, then the voicing is probably breathy and will therefore be transcribed as such to conform with the Swati sound system.

-gcaba [ǀgaba] 'be conceited' Sw: **-gcabha** [ǀgab̥a]

mugcoma [mǀǂoma] 'large pot or drum' Sw: **-umgcoma** [umǀǂoma]

P. [ǀ] → Sw. [ǀ]

2.3.7 *Nasal compounds*

The phonological description of nasal compounds has always been a problematic area in Bantu linguistics. Nurse (1987:10) refers to this when he says that the instability of a nasal followed by a homorganic voiceless stop is attested in sixty-three percent of Bantu languages. In the research material the occurrence of most of the nasal compounds in Pai are attributed to the influence of neighbouring non-Sotho languages. Ziervogel (1954:18) distinguishes 59 different consonant speech sounds for Pai and 18 of these are classified as either "nasal-ejective", "nasal-aspirated" or "nasal-voiced". Van der Spuy (1989:24)

Bantu in the following way. His list of PSB voiced and voiceless stops (and voiced affricates⁵), follows the pattern

	basic stop	->	nasal + stop	->	labialised stop	->	nasal + labialised stop
eg	*p		*Np		pw		Npw

This pattern is based on his definition of syllable structure in Southern Bantu (Van der Spuy 1989:78):

The structure of a syllable is either

	V	(a vowel alone)
or	CV	(consonant - vowel)
or	NCV	(nasal - consonant - vowel)
or	CGV	(consonant - glide - vowel)
or	NCGV	(nasal - consonant - glide - vowel)

The only exception in the languages he has used, is Northern Sotho, where a consonant is not allowed 'to be preceded by a tautosyllabic nasal'. In his reconstruction of PSB, he uses Zulu, 'North Sotho', Venda, Tsonga and Zezuru, a Shona dialect, as his frame of reference. The reconstructed phoneme after *p is *Np (following the sequence quoted above) and he gives the following examples in his comparative series (Van der Spuy 1989:27,28):

ZU	NS	VE	TS	ZE
Np	ph	ph	mh	mh

⁵ Van der Spuy's term 'stop' seems to imply only plosives as he treats the affricates (also stops) separately.

concluding with:

The Zulu attestation is a sequence of consonants, while in the other languages the attestation is a single consonant.it is assumed that the Zulu manifestation reflects the original situation, and that the other languages each lost a consonant from the sequence by cluster simplification. ...the sound sequence reconstructed from this series is a voiceless bilabial stop preceded by a homorganic nasal.

At present, I find no reason to question the assumption made by Van der Spuy that the presence of the nasal in Zulu, and therefore in Nguni, 'reflects the original situation', and this will be taken into consideration when dealing with the relationship of Pai nasal compounds and those of Swati. Accepting this assumption also implies that the occurrence of nasal compounds in Pai (as cited by Ziervogel, and recorded in the research material), cannot merely be ascribed to borrowing or the influence of "non-Sotho" languages. The question of the possible origins of Pai (Tekela-Nguni or Sotho or maybe neither of the two) again comes to the fore. One may well conclude that these nasal compounds in Pai are reflections of 'the original situation' and that they should be seen as part of the phonological structure of Pai as an individual language and not just as idiosyncrasies of a Northern Sotho dialect. However, the Tsonga and Zezuru attestation **mh**, may indicate a different origin of the breathy voiced glottal fricative of Pai.

In the research material the following nasal compounds have been recorded (with reference to Ziervogel's findings):

2.3.7.1 [mb] *a voiced bilabial plosive preceded by a homorganic nasal.*

Ziervogel does not distinguish this nasal compound.

mbongolo [mbɔŋɔɓɔ] 'donkey' Sw: **imbongolo** [imbɔŋɔɓɔ] It is doubtful whether the transcription of the Pai nasalised velar plosive is correct. I would assume that the Swati version - just a velar nasal [ŋ] - is used since the plosive never occurs in Swati in stem-medial positions.

manyombose [maŋɔmbɔsɛ] 'the Swati people'

P. [mb] → Sw. [mb]

2.3.7.2 [nd] *a voiced alveolar plosive preceded by a homorganic nasal.*

This compound occurs mostly in borrowings, and in stem-initial positions that can be ascribed to the Classes 9 and 10 prefixes:

ndishi [ndifi] 'dish' Sw: **indishi** [indifi]

pondo [p'ɔndo] 'pound' Sw: **mpondo** [mpɔndo]

Ziervogel does not mention the alveolar plosive [d] but includes the nasal

compound in his classification:

Z. *lindanda* 'loin cloth' Sw: **umdada** [um'daḁa] This in Swati means "loin cloth made of the skin of the leopard". Interestingly, the exact equivalent of the Pai word **lindanda** occurs in Swati but *only* in the praises of Mswati I and is no longer part of the spoken vocabulary.

P. [nd] → Sw. [nd]

2.3.7.3 [ŋḁ] *a voiced velar plosive preceded by a homorganic nasal.*

This sound poses a problem in Nguni because of its dual nature - sometimes it occurs as a single phoneme and sometimes as a nasal compound phoneme. This is my own opinion. In his description of the Swati speech sounds, Msimang (1989:98) does not distinguish this as a separate phoneme. He considers this to be a nasal compound consisting of a velar nasal allophone, presumably of the Class 9 phoneme /N/, and the "fully breathy-voiced velar plosive" [ḁ] which in turn is an allophone of the "delayed breathy-voiced velar plosive" phoneme /g/ ie phone [ḁ̰]. He also states that "this phoneme occurs stem-initially only". Whether he is referring to the allophone [ḁ] in nasal compounds or the phoneme /g/, is not clear. I assume that his intention was to say that the *phone* [ŋḁ] only occurs stem-initially.

In Swati the nasal combination **ng** is normally pronounced as [ŋ] ie a velar nasal. This is the phoneme /ŋ/ that occurs in the subject concord, the adverbial prefixes as well as in stems where it is *not* stem-initial, eg **ngi-**, **nga-**, **-mangala**, **emanga**, etc. Rycroft (1982) distinguishes between the two in the following way: the velar nasal (/ŋ/) is indicated with the breathy voice diacritic underneath the *n*: **ṅg**, while the nasalised velar plosive (/ŋg/) has the diacritic underneath the *g* (indicated here on top of the symbol): **ṅḡ**. The most prominent example of the nasalised velar plosive /ŋg/ in stem-initial position is in the verb stem -**ngena** (enter) [ŋḡena]; examples in nouns are numerous, eg **liNḡwane** [liŋḡwane] (a Swati), **siNḡuni** [siŋḡuni] (Nguni language and customs) where the presence of the nasal cannot be ascribed to the Class 9 prefix. The nasal in the following examples appears in the stem-medial position and can be pronounced as a nasalised velar plosive [ŋḡ] or as a velar nasal [ŋ] in Swati, both having breathy voice. It is therefore the phoneme /ŋ/ and not the phoneme /ŋg/. Note that the breathy voicing is not indicated in the examples.

-hḡingila [fiŋḡila] 'walk'

hḡilungu [fiŋḡungu] 'language of Europeans'

Sw: **silungu** [siluŋu]

timanga [temaŋga] 'kind of peanut'

Cf Sw: **emantongomane**
[ɛmant'ɔŋɔmane]

P. [ŋg] → Sw. [ŋ]

Although the transcription of the Pai data indicates a plosive element for this nasal, it does not seem as if the nasalised velar plosive /ŋḡ/ (as eg in **-ngena**) features in Pai.

2.3.7.4 [mp] *a voiceless bilabial plosive preceded by a homorganic nasal.*

In the research material this plosive is not indicated as ejective, but one would expect it to be. Ziervogel (1954) is in no doubt as far as the ejective nature of the *p* is concerned.

mpalampala [mpalampala] 'horn of sable antelope' Sw: **imphalamphala**
[imp^halamp^hala] 'sable
antelope' or 'signal horn'.

This compound is also considered to be foreign to the Sotho languages, yet the last example, **mpalampala**, occurs in Ziervogel's Northern Sotho Dictionary. Ziervogel (1954:19) describes this sound in the following way:

mp' ejective *p'* preceded by the bilabial nasal *m*, and *mph* the aspirated bilabial with nasal are both seldom found, cf. *imp'i* (war), *imphô* (ostrich);

Z. [imp'i] 'war' Sw: **imphi** [imp^hi]
Z. [imp^hɔ] 'ostrich' Cf Sw: **inshi** [inʃi]

P. [mp'] → Sw. [mp^h]

Cf par 3.2.3, 3.7.3.

2.3.7.5 [nts^h] an aspirated alveolar plosive with homorganic nasal.

This compound is only distinguished by Ziervogel (1954:19).

Z. *intshô* [ints^hɔ] 'kidney' Sw: **inso** [insɔ]

P. [nts^h] → Sw. [ns]

2.3.7.6 [ɲdⁱ] an 'alveolar-palatal' plosive preceded by a homorganic nasal.

Also only identified by Ziervogel (1954:20).

Z. *imbañdyi* [imbaɲdi] 'hemp' Cf Sw: **insangu** [insɒŋu]

The Pai form is the same as the Swahili (and CB of Guthrie) stem **banj**.

2.3.7.7 [ntʃ^ʼ] an ejective alveolar affricate with 'Rauschlaut' preceded by a homorganic nasal.

As identified by Ziervogel (1954:20). The reason why the nasal is not palatalised is because Ziervogel emphatically states that these affricates (also in par 2.3.7.8) are not palatal but alveolar.

Z. *ints'u* [intʃ'u] 'sheep' Sw: **imvu** [imvu]

P. [ntʃ'] → Sw. [ɱv]

2.3.7.8 [ntʃ^h] *an aspirated alveolar affricate with 'Rauschlaut' preceded by a homorganic nasal.*

As identified by Ziervogel (1954:20). Cf par 2.3.7.7 for remarks on the nasal.

Z. *ints'wê* [intʃ^hwɛ] 'sweet reed' Sw: **imfe** [imfɛ]

P. [ntʃ^h] → Sw. [ɱf]

2.3.7.9 [ɲts'] *an ejective, retroflexive affricate preceded by a homorganic, post-alveolar nasal.*

Ziervogel (1954:20) describes the [ts'] as

an ejective affricate commencing in *t* and gliding into *s*, produced by the tongue tip against the hard palate and released with the tip of the tongue sliding downwards.

Z. *intz'wa* [ɲts'wa] 'war'

2.3.7.10 [mj] Only one example of a *voiced, labio-palatal nasal* is listed, with a note that it is a contraction of [moβjɛla] 'tell him/her'. It is clear that the [mo] becomes a syllabic [m̩], and [mj] can therefore not be a separate phoneme (or phone) as it consists of a syllabic nasal and a palatal glide. A better description would have been: a voiced palatalised bilabial nasal.

2.4 *Summary*

When the sound system of Pai as it was described by Ziervogel is compared with the material described in the preceding section, some minor differences between the two come to light.

2.4.1 The consonant [sw] as it occurs in [swa] 'burn', [swɛhɛla] 'sweep' and [swa] 'young', was not distinguished by Ziervogel as a separate sound. Although it consists of two distinct elements, it was described as a single phoneme because the Swati counterpart in similar words consists of a mono-phoneme.

2.4.2 Ziervogel (1954:19) listed an "aspirated labio-palatal consonant [pjh]". This sound is rendered as [pʃh] in the present material. This does not seem to be a common sound in Pai since it was encountered in one stem only: [pʃha] 'dry up'.

2.4.3 The main difference is that Ziervogel does not describe any click sounds and that a number of nasal compounds are only mentioned by Ziervogel but have not been recorded in the research material.

2.4.4 Although the comparison with Swati was done in a cursory manner with only corresponding words being listed, a number of similarities as well as a number of differences came to light. The major differences between the two languages at this stage appears to be the frequent occurrence of the voiced glottal fricative **fi**, the retroflex sounds and the oral-lateral **kl**. All these aspects will be treated in more detail in the next chapter.

This concludes the description of the speech sounds of Pai. Comparisons with Ur-Bantu, Swati and PSB follow in the next chapter.

CHAPTER 3

Ur-Bantu Consonants in Pai and Swati

3.1 Introduction

3.1.1 The aim in this section is two-fold: firstly it is an attempt to establish the position and status of Pai and Swati in relation to Ur-Bantu. Ur-Bantu consonants will be used as a point of departure to illustrate the sound-shifts in Pai and Swati consonants. This will be done in order to get a better picture of the position of Pai in relation to that of Swati. The reason why Meinhof is used and not Guthrie, is mainly because Meinhof treats both Zulu and Pedi (Northern Sotho) in detail. Swati (Tekela) is one of the two target languages in this study. Adapting Meinhof's Zulu to Swati was more convenient as both languages are familiar to me. The work done by Ziervogel (1954) is also based on Meinhof and since Ziervogel is one of the main sources of reference, it was only logical to take Meinhof as a basis for comparison.

All the information will be presented in tables, with Meinhof's Ur-Bantu forms as a starting point. The equivalent or corresponding Pai and Swati reflexes will follow after the Ur-Bantu form. In order to facilitate this issue further, a column of the postulated Proto-Southern Bantu forms of Van der Spuy (1989) will also be included (if they are listed in his work). Furthermore, the most

prominent characteristics of the Ur-Bantu, Swati and Pai consonants will be listed as distinctive features to serve as additional information in compiling a comprehensive account of the status of the speech sounds of Pai.

Secondly, the aim is to compare the Swati forms with those of Pai, as opposed to the previous section where the Pai speech sounds were described and the Swati equivalents were given. The aim is therefore to view the position of Pai from a Swati perspective. All this will be done in the following manner:

- a) The Ur-Bantu, Pai, Swati and PSB consonants with examples in words will be listed in a table.
- b) A phonetic description will follow where the obvious shifts and differences will be indicated and discussed.
- c) These phonetic differences will then be translated into distinctive features that will represent a summary of the Ur-Bantu, Pai and Swati data. The features will be used to high-light the most obvious characteristics of the two languages. These features will be representative of works by Hyman (1975), Ladefoged (1982), Lass (1989) and Sloat (1978). As will become evident, mainly four features will be used as a basis:
 - (i) $[\pm\text{voice}]$,
 - (ii) a place of articulation feature
 - (iii) $[\pm\text{continuant}]$ and
 - (iv) $[\pm\text{nasal}]$ where nasals are described.

While it is understood that the proto-consonants are only symbolic representations, these four features have been chosen and assigned to the Ur-Bantu forms because they seem to capture the essential characteristics of the Ur-Bantu forms as well as the differences between Pai and Swati.

The feature [\pm continuant] will be applied mainly to distinguish between fricative and non-fricative (stop consonant) sounds. A few additional features that are considered to be important in this investigation will be used to distinguish Pai and Swati phonemes and these are:

- (i) [\pm aspiration] ([\pm asp])
 - (ii) [\pm glottalic] ([\pm glott]) for ejectives
 - (iii) [\pm delayed release] ([\pm del rel]) to distinguish between affricative and non-affricative sounds
 - (iv) [\pm egressive] ([\pm egr]) to account for the implosive and clicks and
 - (v) [\pm lateral] ([\pm lat])
- d) Notes and comments on the nature of each entry will follow where it is deemed necessary.
- e) Finally the Swati form (reflex) with its Pai equivalent will be listed. This information will later be used for comparative purposes.

f) The same abbreviations and conventions as described in the introduction to the speech sounds of Pai will be used (Chapter 2). Examples of Pai and Swati speech sounds within a text will be in bold IPA without any brackets. Phoneme slashes will only be used when the intention is to mark a sound as a phoneme and phonetic brackets to mark a sound as a phone or an allophone. Meinhof's Ur-Bantu orthography (*italics*) will be followed as closely as possible with the following exceptions:

- (i) Bold italics will be used.
- (ii) The Ur-Bantu symbol **ɣ** for the voiced fricative will be replaced by bold italic *y*.
- (iii) The Ur-Bantu semi-vowel *y* will be replaced by bold **y**. In the IPA transcription this semi-vowel will of course be **j**.

Van der Spuy's PSB forms will be represented as a starred form in bold in his own transcription.

g) In the final sections of this chapter where the influence on the preceding consonants of the B. close vowels is listed, only the differences will be indicated and references will be made to what has been treated before. No comments are deemed necessary since the data is self-evident and is included only for the sake of further research.

3.2 *The Primary Plosives*

The primary plosives will first be treated where they are followed by B. *a* or other open vowels in order to eliminate the possible influence of the high and close vowels.

3.2.1 B. *k*

Ur-Bantu	Pai	Swati	Proto-SB
<i>ka</i>	<i>xa</i> - <i>xa</i> (scoop) <i>xaja</i> (home)	<i>kha</i> - <i>kha</i> <i>lik^haja</i>	<i>*ka</i> <i>*ka</i> <i>*kaja</i>

3.2.1.1 The shift here is from B. *voiceless velar plosive* to Pai *voiceless velar fricative* to Swati *aspirated voiceless velar plosive*.

Table 3.2.1.2

B. <i>k</i>	→	P. <i>x</i>	→	Sw. <i>kh</i>
[-voice]	→	[-voice]	→	[-voice]
[vel]	→	[vel]	→	[vel]
[-cont]	→	[+cont]	→	[-cont]

From the above it is clear that Pai follows the typical Sotho shift of B. voiceless velar plosive to NS voiceless velar fricative (Meinhof, 1932:48), and Swati follows the Zunda shift to aspirated velar plosive. Van der Spuy (1989:35) postulates PSB ***k** but also includes examples of stem-medial attestations of this sound in words that contain the partially-voiced [k̚] of Swati and Zulu, eg in the verbal extensions **-ek-** and **-uk-**. Meinhof (1932:83) treats this sound in the same manner and cites the voiced "g" in the extensions as one of the reflexes of B. *k*, but says that the others occurring in stems are exceptions, or the result of assimilation or dissimilation (1932:98-99).

3.2.1.3 In the literature the partially-voiced [k̚] of Tekela and Zulu has not been sufficiently recognised as a completely different phoneme from the "g" of Meinhof or the breathy voiced [g̊] or [g̃] that supposedly derived from the disappearance of a preceding nasal. Nor has this sound, to my knowledge, been adequately described phonetically. Descriptions encountered in a number of textbooks and study guides, range from "voiced, velar plosive" to "partially voiced, velar plosive" to "voiced, velar implosive". Therefore the classification and description of Meinhof will have to be accepted. The above table should then be amended in the following way:

Ur-Bantu	Pai	Swati	Proto-SB
<i>ka</i>	xa / fia xa (scoop) xaja (home) aneɸia (hang out) βeleɸia (give birth)	k^ha / ɸa k ^h a lik ^h aja eneɸa βeleɸa	*ka *ka *kaja *eneka

3.2.1.4 For the B. *k* there are two *fricatives* in Pai: one *voiceless*, the other *voiced*. In Swati there are two *plosives*: one *voiceless* and the other *voiced*.

Table 3.2.1.5

B. <i>k</i>	→	P. x	ɸ	→	Sw. kh	ɸ
[-voice]	→	[-voice]	[+voice]	→	[-voice]	[+voice]
[vel]	→	[vel]	[vel]	→	[vel]	[vel]
[-cont]	→	[+cont]	[+cont]	→	[-cont]	[-cont]

3.2.1.6 In the data above, there is a regular correspondence between the voiceless and voiced phonemes in Pai and Swati. Swati also has *voiced velar plosive* /ɸ/ in addition to an aspirated plosive and the Pai attestation is *voiced glottal fricative* /ɸ/ besides the voiceless fricative. The relationship of both Swati and Pai with B. is therefore two reflexes in both languages to the one of B. The historical data suggests that this partially voiced plosive of Swati (and Zulu) has a *voiceless* origin (cf Xhosa) while the voiced glottal fricative of Pai can only

be explained as a unique characteristic of this language where this sound occurs frequently. The relationship can be illustrated in the following manner:

B. *k* → Sw. **kh** → P. **x**
 ↘ Sw. **ḳ** → P. **fi**

3.2.2 B. *t*

Ur-Bantu	Pai	Swati	Proto-SB
<i>ta</i>	ra / za / ṭʰa / la raʔ'a (love) loza (dream) ṭʰaro (three) ap'ala (dress/wear)	tsa ts'andza ts'atf'u	*dota *tatu

3.2.2.1 The **ra** and **la** often interchange in stem-medial positions and this seems to be a common variation in Pai, as in **-apara** and **-apala**. On the other hand, **ra** and **za** also interchange, but only in stem-initial positions while **za** and **la** never interchange. This possibly indicates that there are at least two distinct phonemes at work in the first two attestations above, viz /r/ and /z/; phone [l] as a variant of /r/ will therefore not be included in this description. The occurrence of the retroflex [ṭ] in Pai may be ascribed to the presence of a preceding nasal in the proto-form but it will nevertheless be included in this description.

3.2.2.2 The shift in Pai is multifold: from B. *voiceless alveolar plosive*, to Pai

- (i) *voiced alveolar trill*
- (ii) *voiced retroflex fricative*
- (iii) *aspirated retroflex plosive*.

The shift to Swati is consistent, ie to an *ejective alveolar affricate* that may have the variant [tʃ'] or [tʃʰ] when the following sound is a back vowel or a labial semivowel (cf comments below, par 3.2.2.6 onwards).

Table 3.2.2.3

B. <i>t</i>	→	P. <i>r</i>	<i>ɹ</i>	ʈ ^h	→	Sw. <i>ts'</i>
[-voice]	→	[+voice]	[+voice]	[-voice]	→	[-voice]
[alv]	→	[alv]	[pal]	[pal]	→	[alv]
[-cont]	→	[+cont]	[+cont]	[-cont]	→	[-cont]
				[+asp]	→	[-asp]
				[-del rel]	→	[+del rel]

3.2.2.4 From a B./Swati perspective, the differences in places of articulation in the Pai attestations (alveolar and palatal) do not seem to be the significant feature since it is the *retroflexive* nature of the sounds *ɹ* and ʈ^h that really distinguishes them from ordinary alveolar or post-alveolar sounds. However, from the same perspective, the features [±voice] and [±cont] in the Pai attestations certainly are significant. The phonemes /r/ and /ɹ/ are both *voiced*

and *continuant* and stand in stark contrast to the *voiceless stops* of B. and Swati. While the trill /r/ is the common reflex in NS and Tsonga and also appears in Pai, there is no apparent reason why the voiced /z/ of Pai exists alongside the voiceless plosive [t^h] in similar environments, even if the presence of a preceding nasal is taken into consideration.

3.2.2.5 The aspirated retroflexive plosive [t^h] of Pai is more in line with the Zunda reflex /th/ than with the Swati affricate [ts']. From a historical point of view it is significant that it does appear in Pai, even more so when one takes into consideration that the NS and Tsonga reflex of B. *t* is /r/ (Van der Spuy, 1989:30). If the observation that Pai is more closely related to NS than to Swati or Tsonga (Ziervogel, 1954; Van Warmelo, 1935) is taken as valid, then the phoneme /r/ should have been the reflex in Pai. Furthermore, the appearance of [t^h] in a common gloss such as 'three', may indicate an origin that is more Proto-Nguni than Proto-Sotho. Cf also the references to breathy voicing in nasal compounds, par 3.7.1.2.

3.2.2.6 As was mentioned above, the Swati [ts'] may alternate with [tʃ], depending on the nature of the following vowel. These affricates are sometimes also aspirated: [ts^h] [tʃ^h], but the reason why or the position where this occurs in contrast to the ejective ones, have not been established beyond any doubt. It seems that, contrary to widely accepted views by Ziervogel (1952 & 1976) and Taljaard (1991), the majority of these attestations are likely to be aspirated and not ejective.

3.2.2.7 This affricatisation of the Zunda /th/ is a characteristic of the Tekela. Whether these sounds in fact can be traced back to the Zunda phoneme /th/ is debatable and will depend on the historical perspective one has of these languages: did the Tekela form develop from Zunda or *vice versa*? It is also interesting to note that Ziervogel (1954:19) does list alveolar /th/ as a Pai phoneme, while in the research material it is classified as *dental*.

3.2.2.8 Msimang (1989:96-97), on the other hand, does not list /th/ for Swati at all. This is obviously an oversight because it commonly occurs in the so-called 'borrowed' words in Swati as well as in words like **kuthula** (be quiet), where one would expect to find the Tekela form, **kutfula**. However, from Msimang's (1989:96, 97) list of Swati phonemes it is apparent that he takes /ts/ as the norm and [tʃ] as an allophone of that phoneme. In a lengthy discussion, he defends his decision to use the breathy voiced affricate /dz/ instead of the breathy voiced plosive /d/ as the norm in Swati, with [dʒ] as its allophone. This seems odd, since the same phenomenon of the possible affricatisation of Zunda /th/ (→ [ts], [tʃ]) occurs with Zunda /d/ (→ [dz], [dʒ]), yet he does not refer to /th/ or /ts/ in his discussion (Msimang, 1989:98-100). My own contention is that /th/ is the norm for Swati allophones [ts'] [tʃ'] or [ts^h] [tʃ^h], and /d/ is the norm for Swati allophones [dz] [dʒ], purely on the grounds of the interdependence of these sounds on the nature of the following vowels.

3.2.2.9 The nature of the Tekela sound system is not the main issue here, but the fact that there are numerous examples in Pai that prove that the affricates [ts'] and [tʃ'] (and the aspirated versions) of Swati are somehow linked to the

aspirated retroflexive plosives of Pai, cannot be overlooked. Cf

P.	[t ^h wala] 'carry'	Sw.	[t ^h wala]
	[ma ^h e] 'saliva'		[ɛmats ^h ɛ]
	[mo ^h o] 'person'		[umuntf ^h u]

3.2.2.10 From a Pai point of view, the places of articulation discussed above (alveolar and palatal), do make a difference because the [r] and [z] do appear in phonologically distinct environments (in Pai). As far as Swati is concerned, the conclusion has to be that the Swati *voiceless alveolar affricates* have the Pai attestations of a *voiced trill* [r], the *voiced fricative* [z] and the *aspirated retroflex plosive* [t^h]:

Sw.	ts/tf	→	P.	t ^h
		→		r
		→		z

3.2.3 B. *p*

Ur-Bantu	Pai	Swati	Proto-SB
<i>pa</i>	<i>fi</i> lafia (heal) fiafiola (castrate) fia (give)	<i>p^ha</i> ɛlap ^h a p ^h aḱula -pha	* <i>pa</i> * <i>pa</i>

3.2.3.1 The shift is from B. *voiceless bilabial plosive* to Pai *voiced glottal fricative* to Swati *aspirated bilabial plosive*. The shift to Swati [p^h] is consistent with the pattern for Nguni, while the Pai shift differs from both Nguni and Sotho in that it is *voiced* and *glottal*. Tsonga has a similar sound under certain conditions because B. *p* can be *p*, *p^h* and *fi* in Tsonga (Louw & Marivate, 1992:278).

Table 3.2.3.2

B. <i>p</i>	→	P. <i>fi</i>	→	Sw. <i>p^h</i>
[-voice]	→	[+voice]	→	[-voice]
[labial]	→	[glottal]	→	[labial]
[-cont]	→	[+cont]	→	[-cont]
			→	[+asp]

3.2.3.3 It is clear that the Pai reflex differs in all respects from B. and Swati. The occurrence of this fricative reflex in Pai can only be explained by looking at the different processes of assimilation when nasal compounds are formed. When nasal compounds are discussed further on, this aspect will receive more attention (Cf remarks by Louw & Marivate (1992) on Tsonga in par 3.7.1.2). In the meantime, it will suffice to say that Meinhof (1932:34) describes a similar phenomenon in Shambala where B. $p > h$:

... in Shambala for instance B. $p > h$, but B. $mp > mph$. Thus we find in this language the law $n + h > mph$, which cannot be understood unless we know that h is derived from B. p which has been retained under the influence of the preceding nasal.

Pai **fi** appears in the second syllable of **-hhahhula** as well, while Swati has the voiced **k** in that position. Under normal circumstances this could be attributed to assimilation or repetition. In the case of Pai this is another example of the frequent appearance of **fi** in the place of different Swati phonemes. The voiced **k** of Swati consistently has the Pai attestation **fi**, but now another phoneme, /ph/, has the same attestation.

Sw. **p^h** → P. **fi**

3.3 The Primary Fricatives

3.3.1 B. *y*

Ur-Bantu	Pai	Swati	Proto-SB
<i>ya</i>	θa / ja anehia (spread) ala (refuse) sija (leave behind) tʃija (locust)	θa / ja eneḱa ala fija lidzija	*eneka *kFiya

3.3.1.1 Here Pai is consistent in the shift to a zero realisation or a semivowel between vowels, as is the case with other Bantu languages. However, the example **-anehha** also appears as **-hhanehha**. Assimilation may be the reason for this or it may be an indication of the tendency to change voiceless sounds to voiced sounds. This appears to be a tendency displayed by some of the Northern Sotho dialects spoken in the far Eastern Mpumalanga. Prof L J Louwrens mentioned this during a departmental lecture by myself (1987) on certain idiosyncracies of Pai when compared to NS and Swati. In the case of **-hhanehha** a zero realisation is replaced by the voiced glottal fricative. As will become clear in the ensuing section, the preponderance of the sound **fi** in the sound system of Pai, may indicate the instability of phonemes in a language that finds itself in a state of flux.

3.3.1.2 In the research material another example, [βɛja] 'put down', is quoted. From a B. point of view this word displays the expected shift of the B. velar fricative becoming a semivowel between vowels. However, the B. form for this gloss is *-veka* and not *-veya*. This is the equivalent of **beḵa** in Swati (and in PSB). Therefore the expected form [βɛfia] should occur in Pai. This may be a rare exception, but the word *-beya* occurs often in the research material and will have to be accepted as a possible skewed form.

Table 3.3.1.3

B. <i>y</i>	→	P. ∅ <i>j</i>	→	Sw. ∅	<i>j</i>
[+voice]	→	[+voice]	→		[+voice]
[velar]	→	[pal]	→		[pal]
[+cont]	→	[+cont]	→		[+cont]

3.3.1.4 Except for the irregularity mentioned above (**beya**), there is a regular correspondence in the shift from B. *voiced velar fricative* to the Pai and Swati *zero phoneme* and the *voiced palatal glide* respectively. The possible interchange of Swati **ḵ** and Pai **j** should however be noted.

Sw. ∅	→	P. ∅
j	→	j
ḵ	→	j

3.3.2 B. *l*

Ur-Bantu	Pai	Swati	Proto-SB
<i>la</i>	la β ^j ela (tell) lela (cry)	la tʃ'ela lila	*da *dida

3.3.2.1 There is a regular shift from B. *voiced cerebral fricative* to Pai and Swati *voiced alveolar lateral approximant*.

Table 3.3.2.2

B. <i>l</i>	→	P. <i>l</i>	→	Sw. <i>l</i>
[+voice]	→	[+voice]	→	[+voice]
		[alv]	→	[alv]
[+cont]	→	[+cont]	→	[+cont]
		[+lat]	→	[+lat]

Sw. *l* → P. *l*

3.3.3 B. v

Ur-Bantu	Pai	Swati	Proto-SB
<u>va</u>	βa / ba fiβuβa (chest) fitʃ'iβa (pond) fibhamu (rifle) geβa (belch) m̩bala (colour)	f̥a / ba sifuba sit'iba siβamu um̩bala	*kipFuba *dFiba *bala

3.3.3.1 The shift from B. is twofold in both Pai and Swati.

From B. *voiced bilabial fricative* to Pai

- a) *voiced bilabial fricative*
- b) *voiced bilabial plosive*

to Swati

- a) *voiced bilabial implosive*
- b) *voiced bilabial plosive.*

Table 3.3.3.2

B. \underline{v}	→	P. β	b	→	Sw. ɓ	ɓ̥
[+voice]	→	[+voice]	[+voice]	→	[+voice]	[+voice]
[lab]	→	[lab]	[lab]	→	[lab]	[lab]
[+cont]	→	[+cont]	[-cont]	→	[-cont]	[-cont]
[+egr]	→	[+egr]	[+egr]	→	[-egr]	[+egr]

3.3.3.3 The problem of breathy voice has already been commented on but again does not seem to be significant within the Swati / Pai context where the plosives are concerned.

Sw.	ɓ	→	P.	β
	ɓ̥	→		b

3.4 The Nasals

3.4.1 B. *n*

Ur-Bantu	Pai	Swati	Proto-SB
<i>na</i>	na t'enawa (beans) nama (meat) k ^h ina (dance) nɔna (become fat)	na ipama Cf. Zulu: -sina nɔna	*nyawa *nyama

3.4.1.1 Although one can assume that this nasal has not changed in Pai, and Ziervogel (1954:22) confirms this, the first two examples above may indicate the existence of a different phoneme than the one in the last two examples, cf the Swati and PSB forms that indicate a *palatal nasal* attestation.

Table 3.4.1.2

B. <i>n</i>	→	P. n	→	Sw. n	ɲ
[+nasal]	→	[+nasal]	→	[+nasal]	[+nasal]
[alv]	→	[alv]	→	[alv]	[pal]

3.4.1.3 The B. *alveolar nasal* stays the same in both Pai and Swati, but

may also change to a *palatal nasal* in Swati.

Sw. **n** → P. **n**
 ɲ → **n**

3.4.2 B. *m*

Ur-Bantu	Pai	Swati	Proto-SB
<i>ma</i>	ma ma (stand) mat'i (water) fioma (go out)	ma ma emant'i p ^h uma	*yima

3.4.2.1 There is no change in the shift from B. to Pai and Swati: bilabial nasal stays bilabial nasal in both Pai and Swati.

Table 3.4.2.2

B. <i>m</i>	→	P. m	→	Sw. m
[+nasal]	→	[+nasal]	→	[+nasal]
[lab]	→	[lab]	→	[lab]

Sw. **m** → P. **m**

3.5 *The Voiceless Palatals*

3.5.1 B. k / t (k^j / t^j)

The symbols between brackets in the above heading have been included because they were used in the research material and by other scholars and they are used here for purposes of clarity.

Ur-Bantu	Pai	Swati	Proto-SB
<u>ka/ta</u>	ɭa ɭats'a (vomit) ɭapu (python) ɭani (five) Z. fiɭanu	ɭa ɭant'a inɭatf'u ɭanu	*caNdFa *canu

3.5.1.1 As is the case in other Bantu languages, the voiceless B. palatals tend to become voiceless lateral fricatives, cf Ziervogel (1954:23):

Both the voiceless B. palatals change to the voiceless lateral written as **hl** in Nguni and other South African Languages.....

This would mean that there is a regular shift from B. *voiceless palatals* to Pai and Swati *voiceless alveolaterals*. It is also interesting to note that Van der

Spuy in the table above (PSB column) has opted for the *voiced* version of the second ejective consonant in Swati [ɬant'a] and Pai [ɬats'a]. Also, the initial fricative of Pai **ɬapu**, corresponds with Swati **inɬatʰu**, but the second nasal consonant differs a great deal from the Swati affricate (Cf par 3.2.2.8).

Table 3.5.1.2

B. <u>k</u> / <u>ɬ</u>	→	P. ɬ	→	Sw. ɬ
[-voice]	→	[-voice]	→	[-voice]
[pal]	→	[alv]	→	[alv]
		[+lat]	→	[+lat]

3.5.1.3 From the research material it is clear that this shift is not not always as regular as indicated above and other shifts take place in Pai. In fact, these lateral sounds are perceived as more *stop* than *fricative*. Cf the following examples:

Ur-Bantu	Pai	Swati	Proto-SB
<u>ka/ta</u>	kl'a / kl ^h a ts ^h ɔkl'a (chew) ɸakl'a (quick) kl ^h aɸa (stab) kl ^h aɸɸia (be clever)	ɬa / k ^h Cf. ɬafuna ɬaba k ^h alip ^h a / ɬaɸanip ^h a	*ca *capFuna

3.5.1.4 The entry **-tshokla** does not correspond with any of the languages under discussion. It may therefore be a unique lexical form of Pai. The next two items indicate a shift from Swati *alveolateral fricative* to Pai *oral-lateral ejective plosive* to Pai *oral-lateral aspirated plosive*. Then there is the last item where the Swati attestation is **k^h**, a *velar aspirated plosive*, and the Pai is again an *oral-lateral aspirated plosive*.

The uniqueness and position in relation to other languages of this *oral-lateral plosive* is discussed in detail when the B. voiced palatals in nasal compounds are described (Cf par 3.9.2.2). Note that the feature [oral] is used for these sounds and an additional feature [±del rel] is added to give a more precise description of the plosive and non-plosive characteristics of the sounds in the table. More information on these features also follow in par 3.9.2.2.

Table 3.5.1.5

B. <u>k</u>	<u>ɬ</u>	→	P. kl'	kl^h	→	Sw. ɬ	k^h
[-voice]	[-voice]	→	[-voice]	[-voice]	→	[-voice]	[-voice]
[velar][pal]*	[alv][pal]*	→	[oral]	[oral]	→	[alv]	[velar]
[±cont]**	[±cont]**	→	[-cont]	[-cont]	→	[+cont]	[-cont]
			[+lat]	[+lat]	→	[+lat]	[-lat]
			[-asp]	[+asp]	→	[-asp]	[+asp]
			[-del rel]	[-del rel]	→	[-del rel]	[-del rel]

*These are *palatalised* sounds.

** The B. k and ɬ are not specified by Meinhof as to their manner of airstream release and one can only assume that they are stops.

3.5.1.6 The reason for the diversity of reflexes derived from B. k and ɬ, as

is clear from the above, is explained by Meinhof:

...., some languages have sounds derived from *k* or *t*, while others have sounds derived from *ḵ* or *ṭ*. We assume *ḵ* or *ṭ* in roots where the majority of languages points in that direction, but where modifications only occur sporadically, we assume *k* and *t*.

As *ḵ* and *ṭ* have very often become identical, it is in many cases difficult or impossible to discover whether a root originally contained *ḵ* or *ṭ*.

(Meinhof, 1932:31)

Since the "regular" shift in the Zunda and other languages is to a *voiceless lateral fricative*, one assumes that the Pai *lateral plosive* and the Swati *lateral fricative*, are derived from the B. *ḵ* or *ṭ*; and that the Swati *velar plosive* is derived from B. *k* as is confirmed by Meinhof:

In some cases a sound occurs which is not derived from *ḵ* but from *k*, e.g. -*khamisa* "yawn" cf. B. -*yaḵama*. -*hamba* "go", cf. Ndebele -*khamba*, is also unusual, ...

(Meinhof, 1932:89)

3.5.1.7 From a Swati point of view one would then have the following:

Sw. ɬ	→	P. ɬ
	→	kl'
	→	kl ^h
k ^h	→	ɬ
	→	kl ^h

3.6 The Voiced Palatals

3.6.1 B. $y / \underset{\cdot}{l}$ ($y^j / \underset{\cdot}{l}$)

Ur-Bantu	Pai	Swati	Proto-SB
$\underset{\cdot}{y}a/\underset{\cdot}{l}a$	kl'a kl'el'a (road) kl'ala (hunger) kl'adi (lightning)	ḵa inḵela inḵala Cf lupat'i	*Njada

3.6.1.1 The shift here is from B. *voiced palatals* to Pai *voiceless oral-lateral plosives* to Swati *voiced alveolateral fricatives*.

The examples in the above table may appear to be part of a nasal compound, but Ziervogel (1954:23) emphatically states that,

Ni- does not affect the Pai laterals which derive from the B. palatals. As in other nasal compounds the nasal is retained with monosyllabic stems only:

He then lists a number of examples like *ihlôxô*, *ikl'êla*, *ikl'ala* where the initial vowel of the class 9 prefix occurs. Louwrens, in the draft of his 1987 article, points out that this vowel is in fact a copulative prefix and not the noun class prefix.

Table 3.6.1.2

B. $\underset{.}{j}$	$\underset{.}{l}$	→	P. kl'	→	Sw. $\underset{.}{j}$
[+voice]	[+voice]	→	[-voice]	→	[+voice]
[pal]	[pal]	→	[oral]	→	[alv]
[+cont]	[+cont]	→	[-cont]	→	[+cont]
		→	[+lat]	→	[+lat]

Therefore,

Sw. $\underset{.}{j}$ → P. kl'

3.6.1.3 The shift to voiceless in Pai seems contradictory to the statement made earlier that dialects in the far Eastern parts of the former Transvaal tend to have more **voiced** consonants. In this case the NS characteristics may have been retained. Meinhof (1932:89) also indicates that the normal shift from the B. palatals is to a **voiced** fricative, especially after the class 9 prefix *ni*, cf Swati *inḡela*, *inḡala*. However, in Zulu the other reflexes of these B. voiced palatals in certain instances are the voiceless and voiced alveolar fricatives *s* and *z*. Meinhof (1932:94) says that,

The B. Palatals become *s* and *z* when such a prefixed *i* has entered the stem, Instead of **iza* "come" (*iḡa*) which one would expect ... we find *-iza*, and so also *i-zulu* 5 "sky" from B. *yulu*.

This is significant since this *z* changes to t' in the Tekela languages, eg *it'a*, *lit'ulu*, in Swati. A number of examples are found in Pai where the kl' is

replaced by this Tekela t':

t'a (come)	instead of *kl'a	cf Zulu za and Swati t'a
lot'a (sieve beer)	instead of *lot'la	cf Zulu luza
let'ap'a (stone)	instead of *lekl'ap'a	(Would this be derived from Afrikaans 'klip'?)
t'ala (become full)	instead of *kl'ala	cf Xhosa zala and the related form in Swati t'ala (increase) or even the click in ǀgwala also meaning 'become full'.

This suggests that the Swati (Tekela) influence may have been equally strong during certain periods in the history of Pai, or that certain lexical items, by virtue of their cultural significance, may have been retained. Ziervogel (1954:23) also observed this, and also quotes the very common gloss "come" that becomes t'a in Pai and Swati (Zulu **za**), but he does not comment on the probable origin of this reflex.

Ur-Bantu	Pai	Swati	Proto-SB
<u>ya/la</u>	t'a t'a (come) lot'a (sieve beer) t'ala (become full)	t'a t'a lut'a ǀgwala	*ja *jada

3.6.1.4 Here the shift is from B. *voiced palatal fricatives* to Pai and Swati *voiceless alveolar plosives*, except for the last example where Swati has a voiced click.

When the data in the above two tables are combined, the possible reflexes of these B. palatal fricatives in Pai and Swati would look like this:

Table 3.6.1.5

B. <i>ɟ</i>	<i>ʃ</i>	→	P. <i>kl'</i>	<i>t'</i>	→	Sw. <i>ɟ</i>	<i>t'</i>
[+voice]	[+voice]	→	[-voice]	[-voice]	→	[+voice]	[-voice]
[pal]	[pal]	→	[oral]	[alv]	→	[alv]	[-voice]
[+cont]	[+cont]	→	[-cont]	[-cont]	→	[+cont]	[-cont]
			[+lat]	[-lat]	→	[+lat]	[-lat]

3.6.1.6 The result is a seemingly regular correspondence between the Swati and Pai voiceless alveolar plosive:

Sw. *t'* → P. *t'*

but this does not include the possible variations as is evident from the examples:

Sw. *t'* → P. *t'*
 → *kl'* and
ɟ → *t'*
 → *kl'*

3.7 The Primary B. Plosives in Nasal Compounds

3.7.1 B. *ŋk* (*nik*)

Ur-Bantu	Pai	Swati	Proto-SB
<i>ŋka</i>	<i>ɦa</i> ⁶ noɦa (smell bad) Z. <i>hiŋk'wa</i> (bread)	<i>ka</i> nuka siŋk'wa	*Nka *nuNka

3.7.1.1 The shift here is from B. *velar nasal compound* (*nasal + voiceless velar plosive*) to Pai *voiced glottal fricative* to Swati *voiced velar plosive*. The last example listed by Ziervogel (1954:22) suggests that the nasal compound may occur unchanged in certain instances and here it may have been a direct borrowing (from Zulu?) in both Swati and Pai.

The shift from B. voiceless plosive to voiced plosive in nasal compounds is not uncommon in the Bantu languages, but the shift to *glottal fricative* certainly is (in NS and Tsonga the alveolar trill *r* is also continuant but its development follows different lines). The process of assimilation works in a variety of ways when nasal compounds are formed. Meinhof (1932:34) covers these processes

⁶ *ɦa*: Ziervogel (1954:22) does not include this shift - *ŋka* → *ɦa*.

extensively in a wide variety of languages. However, the process at work in Pai was not noted by Meinhof and one can only attempt to arrive at a solution by combining some of the processes described by Meinhof. One process is described in this manner:

the nasal either makes a following voiceless sound voiced or disappears itself.
(1932:36)

This applies to nasals assimilating to plosives. In the case of the Swati reflex **k**, the nasal has changed the voiceless B. *k* to voiced and then the nasal disappeared. In the case of Pai the voiceless *k* has also become voiced and the nasal has disappeared. However, the result is a voiced fricative and not a plosive.

3.7.1.2 In order to arrive at a logical explanation, other processes described by Meinhof have to be considered:

contact of the nasal with voiceless consonants is avoided in another way, viz. the plosive is dropped and we get for instance *n̄h, nh, mh,*
(1932:34)

Normally the reflexes of the B. *k, t, p* in the Bantu languages of Guthrie's zone S are **k^h, t^h, p^h**. In Zunda the aspiration falls away when a nasal assimilates to the plosive and they revert back to the original *k, t, p*. In Swati the aspiration is retained and the compounds then consist of **ŋk^h, nt^h, mp^h**. If the principle in the last quotation above is applied to the Swati nasal compounds, one would be left with **ŋ^h, n^h, m^h**, but this does not happen in Swati but maybe it did in Pai. When this process is combined with the one in the first quotation from Meinhof, a plausible explanation of the development of the Pai reflex **fi** may be arrived

at and that is that the aspirate has taken over the voicing of the nasal and the plosive and the nasal itself has disappeared (cf par 3.7.1.3 below).

Another avenue that needs investigation is the presence of breathy voicing in the nasal environment. The problem of breathy voicing and the lack of evidence of breathy voicing in the research material, has already been mentioned (cf par 3.7.1.2). Further evidence of this can be found in Tsonga, and taking the proximity of Tsonga to Pai, this may be a possible development in Pai. Louw & Marivate (1992:276) discuss this under "Phonation in nasal compounding". They give the following example and description (of the process in Tsonga):

14 mhalá impala cf. CS 1411 *-pádá (3/4) 9/10

As one can see from this example, the Common Bantu (CB) stem gives preference to Classes 9 and 10, which implies a nasal compound, *mp. The question is whether one should not identify breathy phonation as a phoneme.

They then give the phonetic transcription as **m̥alá** (Louw & Marivate, 1992:277) which indicates the absence of a voiced glottal fricative but the definitive presence of breathy phonation. These observations may also be relevant to the observations in the following paragraphs where the other nasal compounds are discussed.

3.7.1.3 It is assumed that the Pai reflex of B. *k* in its pre-history was **k^h** (in accordance with what happened in neighbouring Bantu languages). The first step was when the nasal was added and the whole compound became voiced; including the aspirant: **ŋkfi**. Note that Meinhof in the second quotation above

does not indicate whether the *h* in the series *nh*, *nh*, *mh* is voiced or not, but it is implied in the reason for the sound change: *to separate a nasal from a voiceless consonant*. It is furthermore logical to assume that a fricative following a nasal has to be voiced by nature of the airstream that is used in the articulation of such compound sounds. The second step was the disappearance of the plosive element and the final step is the disappearance of the nasal itself, leaving only the voiced aspirant that developed into the voiced glottal fricative *fi* of Pai. Cf the quotations of Louw & Marivate (1992) regarding breathy voicing.

3.7.1.4 This is not the only shift that takes place. With the class prefix of Class 9, *ni + k*, Pai also has an *aspirated velar affricate* reflex:

Ur-Bantu	Pai	Swati	PSB
<i>ni+ka</i>	(ŋ)kx ^h a	ŋk ^h a	*Nka
<i>-kaŋga</i>	kx ^h ak'a (guinea fowl)	Cf imp ^h aŋele	*NkaNga
<i>-kala</i>	kx ^h ala (crab)	iŋk ^h ala	

3.7.1.5 The shift here is from B. *velar nasal compound* (*nasal + voiceless velar plosive*) to Pai *aspirated velar affricate* to Swati *aspirated velar plosive*.

Although Van der Spuy (1989) postulates *NkaNga (cf table above) in correspondence with the Pai reflex, the appearance of the gloss 'guinea fowl' in this context is interesting since in other Southern Bantu languages it represents

the reflex of B. *mp*, eg the Swati form above. Louw & Marivate (1992:281) give the following examples of 'guinea fowl': Tsonga: **mhangéla**; Shona: **hangá**; Xhosa: **impángéle**. These nouns are all Class 9.

The features of all the reflexes of this B. velar nasal compound, *ni + ka*, are compared in the following table. Distinctive features are only assigned to the segment following the nasal.

Table 3.7.1.6

B. <i>ŋk ni+k</i>	→	P. fi	kx^h	→	Sw. ḵ	(ŋ)k^h
[-voice]	→	[+voice]	[-voice]	→	[+voice]	[-voice]
[velar]	→	[glottal]	[velar]	→	[velar]	[velar]
[-cont]	→	[+cont]	[-cont]	→	[-cont]	[-cont]
	→	[-asp]	[+asp]	→	[-asp]	[+asp]
	→	[-del rel]	[+del rel]	→	[-del rel]	[-del rel]

3.7.1.7 There is a regular correspondence between Swati **ḵ** and Pai **fi**. Where the Class 9 prefix is concerned, the correspondence is also regular: from Swati *aspirated velar plosive* to Pai *aspirated velar affricate*. Ziervogel's (1954:22) example of Pai *fiŋk'wa* (bread) and the Swati equivalent **sinkwa** can be regarded as a borrowing from Zunda. Otherwise the Pai form would have been **hiŋkx^hwa** and the Swati **siŋkx^hwa**. The correspondences between Swati and Pai are:

Sw. (ŋ)k^h	→	P. (ŋ)kx^h
ḵ	→	fi

3.7.2 B. *nt*

Ur-Bantu	Pai	Swati	PSB
<i>nta/ni+ta</i>	(n)t ^h a t ^h hap'ɔ (rope) neɾ ^h a (bring back)	(n)ts'a / (n)ts ^h a ints ^h ambo lets ^h a	*Nta

3.7.2.1 The shift is from B. *alveolar nasal compound (alveolar nasal + voiceless alveolar plosive)* to Pai *aspirated retroflex plosive* to Swati *voiceless alveolar affricate*.

Again the difference in place of articulation (Pai *post-alveolar* vs Swati *alveolar*) is not the distinctive feature here. What is of importance is that here the affricatisation feature of Tekela corresponds directly to the Pai retroflexive characteristic. The reason for the absence or presence of aspiration in the Swati attestation is again uncertain and the aspiration in these Swati affricates also appears in stem-medial positions. eg *lets^ha*.

Within this context of the origins of certain forms in Pai and their affinities with Zunda, Louw & Marivate (1992:284), make a number of interesting remarks regarding Tsonga that may well apply to Pai. They say that,

Nouns with *nt* in initial position are very rare (in Tsonga), and where they do occur in other examples, one can ascribe it to Zulu influence.

Since Tsonga displays quite a number of typical Tekela characteristics it is

Since Tsonga displays quite a number of typical Tekela characteristics it is significant that the occurrence of the plosive in Tsonga is ascribed to Zulu influence while the Pai form is also a plosive, cf Zulu **int'ambɔ** and Tsonga **nt'ambu**, while in Swati it is an affricate **ints^hambɔ**. The normal reflex in Tsonga is **nh**. Cf **nhamu** (neck), Zulu: **int'amɔ**; **nhwala** (louse), Zulu: **int'wala**. The Tsonga examples are from Louw & Marivate (1992:285).

Louw & Marivate (1992:286, 287) go further regarding the Pai retroflex:

In Tsonga the digraph *ts* of the practical orthography can stand for a number of dialectal variants. In the speech of a number of older Tsonga-speakers, it can be pronounced as a voiceless retroflex plosive, [t̚]:

When this sound combines with a nasal, the Tsonga form, in certain instances, is similar to Swati, eg **ntshava** and **intsaba** [ints^haba] for 'mountain'. The connection with Pai goes even further than the retroflex when they (Louw & Marivate) say that,

Certain Tsonga dialects have *nhava* for "mountain". The Swati example shows a clear correspondence with Tsonga. The origin of the retroflex obstruents in Tsonga is obscure. They do not occur in Swati. There must have been a specific time when these speech sounds were used to (sic) Tsonga.

(Louw & Marivate, 1992:287)

It is significant that the seemingly ever-present [fi] of Pai surfaces here in Tsonga but not in Pai.

Table 3.7.2.2 Only the distinctive features of the consonants following the nasal are indicated:

B. <i>nta/ni+ta</i>	→	P. (n)t ^h a	→	Sw. (n)ts'a /	(n)ts ^h a
[-voice]	→	[-voice]	→	[-voice]	[-voice]
[alv]	→	[pal]	→	[alv]	[alv]
[-cont]	→	[-cont]	→	[-cont]	[-cont]
	→	[-del rel]	→	[+del rel]	[+del rel]
	→	[+asp]	→	[-asp]	[+asp]

Sw. ts / ts^h → P. t^h

3.7.3 B. *mp* (Cf par 3.2.3.3)

3.7.3.1 The data in both Ziervogel (1954) and in the research material seems confusing. Ziervogel lists the B. *mp* (1954:22) but gives no examples, suggesting that no such reflex can be found in Pai. Then there is another entry of B. *mp* with examples such as *-lap'a* (become hungry). This is obviously an error and should be B. *mb*. In the research material examples such as **p^hap^hama** (drift) and **lop^ha** (bother) are listed as reflexes of B. *mp*. It is unlikely that these aspirated forms were derived from a B. nasal compound such as *mp* and should rather be classified under B. *p*. However, as has already been shown above, the Pai reflex for B. *p* is **fi** and for Swati it is the aspirated **p^h**. When similar and corresponding forms in Swati, like **p^hap^hama** (become awake) and **lop^ha**, as well as the B. *papa* for the gloss 'flutter' (**p^hap^ha** in Swati), are considered, it is

obvious that an aspirated reflex **p^h** exists alongside the reflex **fi** in Pai and is not derived from B. *mp*. (Cf par 3.2.3, 3.2.3.3). The remarks made by Louw & Marivate (1992) regarding breathy voicing (cf par 3.7.1.2), are also relevant here. They also comment on the occurrence of **p^h** and **fi** in the Southern Bantu languages in the following manner:

In Shona CB ***p** cannot change to *h*, but in Tsonga it does happen. This is a big change. It must have happened in a SB context at a specific time, because not all ***ps** become *h*. In fact it is only a minority of CB stems with ***p**, which undergo this change. The breathy voiced glottal aspirate can also have other origins in Tsonga. It may occur in borrowings, or may have its origin in ***nk**, as we shall see.

It would seem that at first glance, one could ascribe the occurrence of *p* and *h* to diverse dialect influences.

(Louw & Marivate, 1992:279)

The fact that the time factor is mentioned, is important. In Tsonga the B. nasal compounds *nt*, *nk* and *mp* all seem to have the breathy voiced aspirate **fi** as a reflex. The predominance of the breathy voiced **fi** in Pai indicates contact and mutual influence between these two languages at some point in time. Strangely enough, the breathy voiced **fi** of Pai does not occur in a nasal environment as regularly as it does in Tsonga.

3.7.3.2 On the other hand, Ziervogel's (1954:22) examples indicate that the aspirated Pai reflex **p^ha** can only be derived from B. *ni + pa*. He lists examples like *iphaxa* (wild cat) and *iphala* (impala) that are comparable with Swati **imp^haka** and **imp^hala** and Tsonga *mhala* **ma^hla** (Louw & Marivate, 1992:277) (Cf par 3.2.3.3, 3.7.3.1). To cloud the issue further, Ziervogel makes the following observation:

As in other Sotho dialects the nasal has been dropped before polysyllabic stems but retained in monosyllabic ones: in the latter the nasal becomes syllabic: *imp'i* (war), *imphô* (ostrich), ...

(Ziervogel, 1954:22)

The statement is perfectly in line with the process that takes place in Sotho. However, the two examples are problematic; not because of the presence of the nasal, but because of the distinct absence of aspiration in the first one and the presence of aspiration in the second example. Comparing this with Swati, the aspiration (as is normal in Swati) is retained: **imp^hi**. It is unlikely that the different vowels, **i** and **ɔ** could have caused this because the process in Swati is not influenced.

3.7.3.3 Unfortunately the word for 'ostrich' in Swati is **infi** and it does not provide any additional information when compared to the Pai **imp^hɔ** (cf the voiced form in Tsonga: **jimbu/nimbu** (Louw & Marivate, 1992:273)). Nevertheless, the absence of aspiration in Pai in *Z. imp'i* and its presence in the Swati form, may indicate different origins, or, at least a different process of derivation. The reason for this conclusion is that it corresponds with the Zunda form: **imp'i**, where aspiration always disappears when preceded by a nasal. If, according to Ziervogel (1954:22), Pai **p^ha** is derived only from B. *ni + pa*, the Pai forms *imp'i*, and *mp'alamp'ala* (horn of sable antelope) would be exceptions because they both belong to Class 9 (as are the other aspirated forms quoted by Ziervogel). Yet at the same time they correspond to the sound pattern of Zunda. The second nasal compound in *mp'alamp'ala* may be the result of assimilation or repetition. Unfortunately no comparable forms of the Zulu *phamp'atha* "accuse falsely", and *phump'utha* "grope" (Meinhof, 1932:109) could be found

for Pai in the research material. The fact is that this form occurs in Pai and should be taken into consideration.

3.7.3.4 The examples **p^hap^hama** and **lop^ha** quoted in the research material are going to be disregarded in the following table (for this B. nasal compound). Ziervogel's lack of examples of the B. *mp* in Pai compounds the issue, but from the above it is clear that an example such as *mp'alamp'ala* should be included as a valid occurrence of this nasal compound.

Ur-Bantu	Pai	Swati	PSB
<i>mp</i>	p' mp'alamp'ala* (horn of sable antelope)	p^h Cf. imp ^h ala	*Np Npada
<i>ni+p</i>	mp' / p^h mp'alamp'ala (horn of sable antelope) imp'i (war) ip ^h axa (wild cat)	mp' / mp^h imp'alamp'ala imp ^h i imp ^h aqa	*Np Npaga

*Note that the second occurrence of **p'** has been taken as the reflex of B. *mp*.

3.7.3.5 The *voiceless bilabial plosive* in the B. nasal compound may become an *ejective bilabial plosive* in both Pai and Swati while Class 9 nasal + bilabial plosive results in a nasal + *ejective bilabial plosive* in a few isolated cases in

Pai and Swati. The general shift is to an *aspirated bilabial plosive* without the nasal in Pai and accompanied by the nasal in Swati.

Table 3.7.3.6

B. mp	→	P. (m)p'	p ^h	→	Sw. (m)p'	(m)p ^h
[-voice]	→	[-voice]	[-voice]	→	[-voice]	[-voice]
[lab]	→	[lab]	[lab]	→	[lab]	[lab]
[-cont]	→	[-cont]	[-cont]	→	[-cont]	[-cont]
	→	[+glott]	[+asp]	→	[+glott]	[+asp]

Sw. (m)p^h / (m)p' → Pai p^h / (m)p'

3.8 The Primary B. Fricatives in Nasal Compounds

The B. nasal compounds listed here will consist of a nasal + plosive, in accordance with Meinhof (1932:34):

If *n* comes before the primary fricatives, the latter already in Ur-Bantu became plosive. The reason for this is that the oral closure of the nasal is extended to the following sound, which becomes plosive accordingly.

He also adds that,

In Sotho and Makua these *g*, *d*, *b* have become voiceless and have lost the preceding nasal. That they formerly had one, is proved by its retention before monosyllables.

(Meinhof, 1932:34)

Due to the influence of both Swati and NS on Pai, it is therefore to be expected that both the voiced and voiceless forms are going to appear in Pai.

3.8.1 B. *ŋg* (*ŋg*)

3.8.1.1 The problematic nature of this sound has been mentioned before (cf par 2.3.7.3) and is again evident here. The one outstanding example in Swati of the occurrence of the nasal plosive phoneme /*ŋg*/ in the verb stem *ŋgēna*, is listed below with the corresponding Pai form an ejective plosive *k'*. In the next example *t^huŋa*, it is irrelevant in Swati whether it is a plosive or not, yet the Pai form is again an ejective. Then follows the corresponding forms with *ŋ* that are clearly non-plosive in Swati. Yet in both Ziervogel and the research material the Pai nasal is transcribed as *ŋg*.

Ur-Bantu	Pai	Swati	PSB
<i>ŋga</i>	<i>k'a</i> / <i>ŋga</i> Z. <i>k'ena</i> (enter) Z. <i>t^hok'a</i> (sew) <i>longa</i> (be right) Z. <i>t'ifungu</i> (fog)	<i>ŋga</i> / <i>ŋa</i> <i>ŋgēna</i> <i>t^huŋa</i> <i>luŋa</i> <i>iŋk^huŋu</i>	<i>*Nga</i> <i>*tuNga</i>

3.8.1.2 Again forms are listed in the research material that do not appear to be reflexes of the B. form. Forms like **k'alɛla** (kick), **lek'aɽ'a** (egg) (cf Swati **licandza**) and **k'aje** (where?) are listed while forms with the voiced plosive are listed under borrowed forms. Except for the example **longa**, Ziervogel's examples (1954:22) will be used as the basis for this comparison.

3.8.1.3 The shift is then from B. *voiced velar plosive* to Pai *ejective velar plosive* or *voiced velar plosive* to Swati *voiced velar plosive* or just a *voiced velar nasal*.

Table 3.8.1.4

B. ŋg	→	P. k'	ŋg	→	Sw. ŋǰ	ŋ
[+voice]	→	[-voice]	[+voice]	→	[+voice]	[+voice]
[velar]	→	[velar]	[velar]	→	[velar]	[velar]
[-cont]	→	[-cont]	[-cont]	→	[-cont]	[+cont]

Sw. **ŋǰ / ŋ** → Pai **k' / ŋg**

3.8.2 B. *nd*

Ur-Bantu	Pai	Swati	PSB
nda	ŋ'a / ŋɔa Z. laŋ'a (fetch) Z. leŋ'a (wait) k'aŋɔa (marry) leɔaŋɔa (loin cloth)	ndza landza lindza endza lindanda	*Nda *liNda

3.8.2.1 Pai again displays a tendency to have elements of both Sotho and Nguni in that voiceless and voiced reflexes of the same B. form occur. The first three items listed above again display the marked correspondence between the Pai retroflexives and the affricativised forms of Swati. The Swati form will vary according to the nature of the following vowel (**ndv** will precede back vowels). The origin of the Swati form **lindanda** has already been mentioned (See par. 2.3.7.2).

3.8.2.2 The shift is from B. *voiced alveolar plosive* to Pai *ejective retroflexive plosive* or *voiced retroflexive plosive* to the Swati *voiced alveolar affricate*.

Table 3.8.2.3

B. <i>nd</i>	→	P. t'	ɲɔ	→	Sw. (n)dz	nd
[+voice]	→	[-voice]	[+voice]	→	[+voice]	[+voice]
[alv]	→	[pal]	[pal]	→	[alv]	[alv]
[-cont]	→	[-cont]	[-cont]	→	[-cont]	[-cont]
		[-del rel]	[-del rel]	→	[+del rel]	[-del rel]

3.8.2.4 The feature [-voice] of Pai occurs according to the pattern for NS, while the [+voice] feature is more in line with Zunda. The difference in place of articulation, [pal] and [alv], is also not significant, but from a Swati point of view the correspondence between the Pai retroflexes (this characteristic has not been awarded a distinctive feature) and the Swati [+del rel] affricates certainly is.

Sw. (n)dz	→	Pai	t'
	→		(ɲ)ɔ

3.8.3 B. *mb*

Ur-Bantu	Pai	Swati	PSB
<i>mba</i>	p'a / mba Z. βop'a (mould) Z. lap'a (get hungry) map'a (mamba) t ^h emba (trust) p'omba (reduce)	mba bumba lamba imamba ts ^h emba Cf Zulu phumba (useless)	*Nba *buNba
<i>ni+y</i>	ip'udi (goat) ip'ɛwu (seed)	imbut'i imbewu	*NbudFi *Nbewu

3.8.3.1 In Ziervogel (1954:22) and in the research material the B. form is given erroneously as *mp*, while Meinhof (1932:34) clearly states that,

in Ur-Bantu $n + y > n̄g$, $n + l > nd$, $n + \underline{y} > mb$. This law still applies over practically the whole Bantu area.

The examples above again show the tendency of Pai to have both the Nguni and Sotho reflex for one B. form.

3.8.3.2 The shift is from B. *voiced plosive* to a Pai *ejective plosive* (the more common shift) to a *voiced plosive*. In Swati the shift is to a *voiced plosive*.

Table 3.8.3.3

B. mb	→	P. p'	(m)b	→	Sw. (m)b
[+voice]	→	[-voice]	[+voice]	→	[+voice]
[lab]	→	[lab]	[lab]	→	[lab]
[-cont]	→	[-cont]	[-cont]	→	[-cont]
		[+glott]			

Sw. (m)b	→	Pai p'
	→	(m)b

3.9 The B. Palatals in Nasal Compounds

The Pai reflexes of both the voiceless and voiced palatals of B. are not affected by a preceding nasal or by the Class 9 prefix. In the research material only one example was listed: **ɬats'e**. The final vowel in this example differs from that of Ziervogel (1954:23): **ɬats'i**. Ziervogel gives a number of examples and therefore the examples quoted here are all from his publication.

The first table below illustrates the reflexes of the *voiceless* B. palatals and the second table will deal with the *voiced* B. palatals.

3.9.1 B. *ni + k, t*

Ur-Bantu	Pai	Swati	PSB
<i>ni + k, t</i>	ɬ Z. iɬoxo (head) Z. iɬats'i (fish)	(n)ɬ inɬoxo inɬant'i	*Nc *Ncoko *NcaNbfɪ

3.9.1.1 The shift is consistent in that the voiceless B. palatals have a *voiceless alveolateral fricative* without a nasal as a reflex in Pai. In Swati the same lateral fricative occurs but together with the nasal.

Table 3.9.1.2

B. <i>ni+ k, t</i>	→	P. ɬ	→	Sw. (n)ɬ
[-voice]	→	[-voice]	→	[-voice]
[pal]	→	[alv]	→	[alv]
[±cont]*	→	[+cont]	→	[+cont]
	→	[+lat]	→	[+lat]

* The B. palatals are not specified as to their manner of airstream release.

Sw. (n)ɬ → Pai ɬ

3.9.2 B. *ni + ɲ ɺ*

Ur-Bantu	Pai	Swati	PSB
<i>ni + ɲ ɺ</i>	kl' Z. ikl'εla (road) Z. ikl'ɔu (elephant) Z. iŋkl'ɔ (house)	(n)ɮ inɮεla inɮɔvu inɮu	*Nj *NjogFu *Nju

3.9.2.1 The shift is consistent in that the voiced B. palatals have a *voiceless oral-lateral plosive* as a reflex in Pai and a *voiced alveolateral fricative* in Swati.

3.9.2.2 In the section on the B. palatals the feature [oral] was introduced (Cf par 3.5.1.4). The reason why this oral sound was not treated in detail there, is that it behaves consistently when in the environment of a preceding nasal while without the nasal a number of variations occur.

The distinctive feature [oral] as a place of articulation feature is used to indicate the unique nature of this sound in Pai. In the research material this sound (and its aspirated counterpart) is singled out because of its *plosive* characteristic. In order to establish the uniqueness of this characteristic, the position of both Swati and NS is going to be considered. In Swati the reflex of B. voiced palatals in nasal compounds is a *voiced alveolateral fricative* **(n)ɮ**, ie [+voice, +lat, +cont], as can be seen from the table above. In the Zunda

languages (Xhosa and Zulu) this derivation becomes an *affricate* **ndʒ**. Sounds that are similar to the Pai form do occur in Swati, eg **kl'**, a lateral sound with the feature [+del rel], ie an affricate, yet in Swati this is a different reflex altogether. Pai and Swati therefore only seem to have the feature *lateral* [+lat] in common for the B. form.

Ziervogel (1954:21) describes this Pai consonant in the following way, but does not specify the exact manner of airstream release, except to say that it is ejective:

kl' is a voiceless ejective lateral produced by placing the tongue in the position for *k* with the sides of the tongue against the side teeth: *-kl'ala* (hunger),
(Ziervogel, 1954:21)

According to Van der Spuy (1989:49), Venda, Tsonga and Zezuru also have a *voiced* reflex for the B. voiced palatals with only NS having a *voiceless* attestation. Van der Spuy postulates a *voiced fricative* *Nj as his PSB form and this is far removed from the *voiceless plosive* form of Pai:

The majority of attestations are sequences of nasal and voiced fricative. The North Sotho attestation is an affricate, and the Venda is a nasal followed by a dental stop. An alternation between lateral and central in North Sotho shows that this series is parallel to the previous one, with the addition of an initial nasal.

(Van der Spuy, 1989:49)

The "previous one" Van der Spuy refers to above, is the NS reflex without a preceding nasal. This is similar to the situation in Pai where the nasal does not have any effect on these reflexes. The lateral form Van der Spuy refers to is **tl** and the central form is **ts** in NS. The latter alternation only occurs before front vowels. The last sentence of Van der Spuy in the quotation above may be

misleading because the B. nasal does not manifest itself in NS.

All this indicates that Pai has the features [-voice, -cont, +lat] in common with NS, and then only under certain conditions, ie when the NS attestation is followed by the low central vowel or back vowels. Elsewhere (before front vowels) the common factor between the Pai and NS form is only [-voice, -cont] because the nature of the following vowel does not have an influence on the Pai attestation (cf table above). The features [\pm cont] and [oral] are not sufficient when the plosive characteristic of this sound is taken into consideration. In order to make the distinction between Pai and NS clearer, the feature [\pm del rel] will also be used to distinguish between the plosive and affricative characteristics. The features [-del rel, -cont] for this form in Pai will therefore indicate a *plosive*, while in Swati the features [-del rel, +cont] will indicate a fricative. Obviously the features [+del rel, -cont] indicate an affricate in NS. For comparative purposes NS will be included in the table.

Table 3.9.2.3

B. ni + y, l	→	P. kl'	→	Sw. (n)ḡ	→	NS. ts	ʈ
[+voice]	→	[-voice]	→	[+voice]	→	[-voice]	[-voice]
[pal]	→	[oral]	→	[alv]	→	[alv]	[alv]
[\pm cont]*	→	[-cont]	→	[+cont]	→	[-cont]	[-cont]
	→	[+lat]	→	[+lat]	→	[-lat]	[+lat]
	→	[-del rel]	→	[-del rel]	→	[+del rel]	[+del rel]

* The B. palatals are not specified as to their manner of airstream release.

3.9.2.4 From the above it is clear that Pai and NS have [-voice] and [-cont] in common with [+lat] only under certain conditions. Compared to Swati the difference is even greater and the two languages only have the feature [+lat] in common. The two [-del rel] features in both languages signify different characteristics because of the presence of [-cont] in Pai (ie *plosive*) and [+cont] in Swati (ie *fricative*).

The foregoing arguments do not provide conclusive evidence as to the exact nature of this sound in Pai and this can only be determined by spectrographic analysis. However, the evidence shows that this form in Pai is, if not unique, at least different from corresponding attestations in neighbouring languages.

Sw. (n)ǰ → Pai kɪ'

3.10 *The B. Primary Plosives, Fricatives, Palatals and Nasals followed by B. i.*

The reflexes of B. *i* does not always have an influence on the preceding Pai and Swati consonants and therefore the description and comparison of all these consonants will not be repeated here. All the consonants will be listed with the relevant sound changes and the paragraph numbers where they were discussed. Only those examples where variations occur, or where additional

information can be gained from the new examples, will be discussed.

3.10.1 B. *ki* (Cf par 3.2.1, 3.2.1.6)

Ur-Bantu	Pai	Swati	PSB
<i>ki</i>	fi / fi mofiela (tail) iɲɔfi (bee) fiɪ ^h ene (heel)	si uɱsila iɲosi sits ^h endze	*ki *mukida *nyoki

3.10.1.1 Pai has two distinct attestations here: the B. *voiceless velar plosive* has a *voiced glottal fricative* as well as a *voiceless postalveolar fricative*, and in Swati it is a *voiceless alveolar fricative*.

3.10.1.2 The B. high vowels change these Pai consonants from a velar fricative **x** or the glottal fricative **ɦ** (Cf par 3.2.1, 3.2.1.6) to the fricative forms in the table above. Again the voiced velar fricative surfaces here in Pai. The alternant **ʃ** is more in line with the Sotho and Tsonga forms. In Ziervogel (1954:23) only the vowel **e** is listed for the Class 7 prefix **fi** while in the research material the prefix is **fi** throughout. The *subject and object concord* of Class 7 prefix **fi** is given as **fi** in both Ziervogel and the research material and this is a unique manner of establishing concordial agreement. The differences between the consonantal segments of the class prefix and the concords are

3.10.2 B. *ti*

(Cf par 3.2.2, 3.2.2.4, 3.2.2.10, 3.10.2.2, 3.12.2.1)

Ur-Bantu	Pai	Swati	PSB
<i>ti</i>	re / ze	ts'i / ts ^{hi}	*ti
	re / ze (say)	ts'i / ts ^{hi}	*ti
	mołare /		
	mołaze (jaw-bone)	umhlatsi	
	ma ^h e (saliva)	emats ^h e	*mate

3.10.2.1 The reflexes of B. vowel *i* does not have an influence on either the preceding Pai or Swati consonant. The alternants *r* and *z* have again been observed by Ziervogel (1954:23) and also appear in the research material. The aspirated retroflex as in **ma^he** was not noted by Ziervogel. This could be an indication that the Swati affricates became more evident in Pai speech in recent years or it can be a unique lexical item of Pai that was missed by Ziervogel.

The shift is from B. *voiceless alveolar plosive* to either Pai *voiced alveolar trill* or the *voiced retroflex fricative* with the *aspirated post-alveolar plosive* as a possible third alternant. The shift to Swati is consistent: a *voiceless alveolar affricate* that may be either ejective or aspirated. The absence or presence of aspiration does not seem to be phonemic in these environments in Swati.

Table 3.10.2.2

B. <i>ti</i>	→	P. <i>re</i>	<i>ze</i>	<i>tʰi</i>	→	Sw. <i>tsi/tsʰi</i>
[-voice]	→	[+voice]	[+voice]	[-voice]	→	[-voice]
[alv]	→	[alv]	[pal]	[pal]	→	[alv]
[-cont]	→	[+cont]	[+cont]	[-cont]	→	[-cont]
[-asp]	→	[-asp]	[-asp]	[+asp]	→	[±asp]

B. *ti* Sw. *tsi/tsʰi* → P. *re/ze*
→ *tʰi*

Cf par 3.2.2, 3.2.2.4, 3.2.2.10, 3.10.2.2, 3.12.2.1:

B. *t* Sw. *ts/tf* → P. *tʰ*
→ *r*
→ *z*

3.10.3 B. *pi* (Cf par 3.2.3, 3.2.3.3)

Ur-Bantu	Pai	Swati	PSB
<i>pi</i>	<i>fi</i> / <i>fi</i> <i>fi</i> / <i>fini</i> (which?) <i>mofi</i> / <i>ni</i> (handle)	<i>pʰi</i> <i>pʰi</i> <i>umpʰi</i> / <i>ni</i>	* <i>pi</i> * <i>mupini</i>

- 3.10.3.1 The B. *i* affects no changes to the Pai and Swati reflexes.
Voiceless bilabial plosive becomes a *voiced glottal fricative* in Pai and an *aspirated bilabial plosive* in Swati.

Table 3.10.3.2

B. <i>pi</i>	→	P. <i>fi</i>	→	Sw. <i>p^hi</i>
[-voice]	→	[+voice]	→	[-voice]
[vel]	→	[glott]	→	[lab]
[-cont]	→	[+cont]	→	[-cont]
	→	[-asp]	→	[+asp]

Sw. *p^hi* → P. *fi*

Cf par 3.2.3, 3.2.3.3:

B. *p* → Sw. *p^h* → P. *fi*

3.10.4 B. *yi*

(Cf par 3.3.1, 3.3.1.4, 3.10.4.3)

3.10.4.1 In the research material two examples are listed that may represent the occurrence of the \emptyset reflex of this B. fricative and one that may represent the Tekela *t'*. Unfortunately the first two examples in the table below are not listed by either Meinhof (1932) or Van der Spuy (1989) and for the rest the research material contradicts the examples given by Ziervogel. Ziervogel (1954:23) lists

only one example of this sound shift: *yima* (**jima**), but adds that this *i* also occurs in concords in Pai. In the research material this occurs under the 'close' B vowel *î*. In Meinhof (1932:248) the following forms are given: *-yi-ama* (*-yi-ma*), *-tîma* and the Ziervogel form is obviously the correct one.

Ur-Bantu	Pai	Swati	PSB
<i>yi</i>	<p>øe / te</p> <p>leeβa (dove)</p> <p>meekl'wa (thorns)</p> <p>let'eno (tooth)*</p> <p>jima (stand)</p>	<p>ti</p> <p>lituβa</p> <p>Cf Zulu lihōβe</p> <p>Cf emapeva</p> <p>Zulu ameva</p> <p>lit'ijɔ</p> <p>ma</p>	<p>*gFi</p> <p>*gFinyo</p> <p>*yima</p>

* This example is listed here in the research material while it is in fact the 'close' B. vowel *î* that appears in the root.

3.10.4.2 In the first and second examples above the zero phoneme appears to be positioned between the vowels *ee*. However, when the Swati form **lit'uβa** is considered, it seems more likely that it is the alveolar plosive **t'** that has disappeared. The fact that the vowel *e* of Pai and the vowel *u* of Swati in the words for 'dove' differ, should not be seen as a significant difference that would rule out the possibility that these are cognate forms. The reason for this is that similar switches of vowels occur elsewhere in Pai and Swati (cf par 3.10.10).

3.10.6 B. *ɣi*

No change. Cf par 3.3.3, 3.3.3.3, 3.11.6:

B. *ɣ* Sw. *ɓ* → P. *β*

3.10.7 B. *ni*

3.10.7.1 In a number of examples the reflex of the B. *n* fluctuates a lot in Pai. But, as was observed in par 3.4.1, the alveolar nasal stays the same in Pai and occasionally changes to the *palatal* nasal in Swati. However, when the B. *i* follows the nasal, the Pai form sometimes change to a *palatal* nasal (except for the locative suffix - cf the example listed first in the table below) while the Swati form remains an *alveolar* nasal (Cf par 3.4.1, 3.4.1.3).

Ur-Bantu	Pai	Swati	PSB
<i>ni</i>	<i>ni/ɲi</i> kl'eleni βeeɲi (owners) β ^h aɲi (grass) nip'a (belly)	<i>ni</i> enɟeleni ɓanini tjani	<i>*ni</i>

3.10.9 B. ki (kʲi) (Cf par 3.5.1)

Ur-Bantu	Pai	Swati	PSB
<u>ki</u>	se fiase leβese	si p ^h ansi* lubisi	*ci *paNci *bici

*In the Swati example p^hansi, the nasal is often dropped and the vowel is nasalised: p^hasi and this brings it closer to the Pai form.

3.10.9.1 The basic reflex of B. k is ʈ in Pai (Cf par 3.5.1.7, 3.10.9.2, 3.11.9) and here the voiceless lateral is changed to a *voiceless alveolar fricative* in both Pai and Swati.

Table 3.10.9.2

B. <u>ki</u>	→	P. se	→	Sw. si
[-voice]	→	[-voice]	→	[-voice]
[pal]	→	[alv]	→	[alv]
[±cont]	→	[+cont]	→	[+cont]

B. ki → Sw. si → P. se

Cf par 3.10.9:

B. k → Sw. ʈ → P. ʈ
 → kl'
 → kl^h

B. k → Sw. k^h → P. ʈ
 → kl^h

3.10.10 B. *y*i

As was mentioned in par 3.6.1.5, the regular attestation of this voiced palatal is the *ejective alveolar plosive* **t'** or the *voiced alveolateral fricative* **ɣ** in Swati and the *ejective alveolar plosive* **t'** or the *oral-lateral plosive* **kl'** in Pai. According to the research material only one entry could be found that represents this reflex in Pai, ie **kl'ela** (pass/surpass). This would be **entɣula** in Swati. Although the two vowels **e** and **u** differ markedly in both horizontal and vertical modifications in Pai in Swati, the consonantal reflexes in both languages correspond to what has been observed above and in par. 3.6.1.5. Cf also par 3.10.4.2 above. The vowel therefore does not seem to affect any changes to these consonants.

3.10.10.1 Therefore,

B. <i>y</i> i	→	Sw.	t'i	→	P.	t'i
	→		ɣi	→		kl'i

and the only difference observed here is the appearance of the Tekela **t'** in some of the examples. Cf par 3.5.1.7, 3.6.1.2, 3.10.9.2, 3.11.9:

B. <i>y</i>	→	Sw.	ɣ	→	P.	kl'
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3.11 *The B. Primary Plosives, Fricatives, Palatals and Nasals followed by B. u.*

As was stated in par 3.10, only minimal changes to preceding consonants are caused by the reflexes of the B. vowels *i* and *u* and they will only be listed with the relevant references and additional examples and comments where necessary.

3.11.1 B. *ku*

The difference between the reflexes of B. *ka* and *ku* seems to be that the voiced velar plosive **ɸ** of Swati before B. *u* consistently has the *voiceless velar fricative* **x** as a counterpart in Pai, while with B. *ka* the **x** of Pai only occurred as the counterpart of the *aspirated velar plosive* **k^h** of Swati and not of **ɸ**. The voiced glottal fricative of Pai that occurs as a reflex of B. *ka*, does not feature in the environment of B. *u* at all. Cf the comparisons below:

Pai: **βosoxo**(night) Sw.: **fusuɸu**

B. *ku* → Sw. **ɸu** → P. **xo**

Cf par 3.2.1, 3.2.1.6:

B. *ka* → Sw. **k^ha** → P. **xa**
 → **ɸa** → **fa**

3.11.2 B. *tu*

B. *tu* → Sw. *ts' / tʃ'* → P. *r*
 → *z*
 → *tʰ*

(Cf par 3.2.2, 3.2.2.4, 3.2.2.10, 3.10.2.2, 3.12.2.1)

3.11.3 B. *pu*

B. *p* → Sw. *pʰ* → P. *f*

Cf par 3.2.3, 3.2.3.3.

3.11.4 B. *yu*

In the research material the shift from B. *yu* to Pai is indicated as **0o**, i.e. a zero phoneme followed by a mid-high vowel. No examples are given and like Ziervogel (1954:23), the only comment is that this form occurs 'mostly' in concords but Ziervogel adds that the vowel occurs mostly as **u** and seldom as **o**.

3.11.5 B. *lu*

Cf par 3.3.2:

B. *l* → Sw. **l** → P. **l**3.11.6 B. *yu*B. *y* → Sw. **ɸu** → P. **βo**

Cf par 3.3.3, 3.3.3.3, 3.10.6:

B. *y* → Sw. **ɸ** → P. **β**
ɸ → **b**

From the examples listed in the research material the only difference is that when the bilabial is followed by the reflex of B. *u*, the breathy voiced plosive of Swati and the voiced plosive of Pai do not appear. An interesting variation occurs in the class prefix of Class 14 in Pai where the standard form **βo** alternates with a *palatalised* form **βi**. Cf the following examples:

Pai: βolək'ɔ / βilək'ɔ (dung)	Sw.: ɸulɔŋwe
βoraxa / βiraxa (mud)	ludzaka
βofik'a / βifik'a (winter)	ɸusiqa

This alternation is also noted by Ziervogel (1954).

3.11.9 B. ku / tu (k^ju / t^ju)

B. ku/tu → Sw. **ɬu** → P. **ɬo**

Cf par 3.5.1.7, 3.10.9.2:

Sw. ɬ	→	P. ɬ
	→	kl'
	→	kl^h
k^h	→	ɬ
	→	kl^h

The reflex of B. vowel *u* appears to act as a stabilizer in the case of these consonants because in a number of examples none of the variations that occur with *a* (as indicated above) appears in Pai.

3.11.10 B. yu / lu (y^ju / l^ju)

Ur-Bantu	Pai	Swati	PSB
<u>y</u> u/ <u>l</u> u	kl'o/t'o p ^h akl'ofia (crack) ŋkl'o (house) kl'oβa (pinch) mot'oxolo (grandchild) *t'ofia (go away)	ɭu/ɮu/t'u Cf p ^h aɭaɭa inɮu umt'uɕulu Cf suɕa	*Nj *Nju

*The correctness of this entry is questionable.

3.11.10.1 Here the reflex of B. *u* does not seem to have a stabilizing effect on the preceding consonant and the following variety of reflexes appear in Pai and Swati:

B. yu / lu → Sw. ɭu → P. kl'o
→ ɮu → kl'o
→ t'u → t'o

Cf par 3.6.1.6:

B. y / l → Sw. t' → P. t'
→ kl' and
ɮ → t'
→ kl'

The wide variety of reflexes of the B. palatals, underlines the fact that a great deal of uncertainty exists regarding the original sounds (cf Meinhof, 1932:32). The only exception is the voiceless palatals *k, t* where the reflexes seem more consistent in Swati and Pai when followed by B. *u*.

3.12 The B. Primary Plosives, Fricatives, Palatals and Nasals followed by B. Close Vowels *î* and *û*.

According to Meinhof (1932:26) the influence of the B. *î* on a preceding consonant consists mainly of the following:

- a. A palatal sibilant sound (fricative) is formed between the vowel *î* and the preceding consonant.
- b. The inserted fricative becomes more marked and the preceding consonant is dropped altogether.
- c. A new sound may be produced that has characteristics of the original consonants.
- d. The plosive qualities of the preceding consonant may be strengthened by the presence of *î*.

These are the main criteria that will be used when the influence of B. *î* on Swati and Pai consonants is described. But, as was clearly stated by Meinhof (1932:25), there are always exceptions to a rule. Sometimes it is difficult to determine whether it was indeed the 'close' vowel *î* or the 'open' vowel *i* that

caused the change. Some of the items are not listed by Meinhof (1932) or Van der Spuy (1989), and some listed by Ziervogel (1954) are classified at different places in the research material. Meinhof gives the following explanation for some of these inconsistencies:

Thus in Konde B. *i* > *î* under certain circumstances. Nor must the rule be understood to imply that every *e* and *o* in Sotho is derived from B. *i* or *u*, but in general the above rules will be found to apply.

The opposite also sometimes occurs, viz. that B. *î*, *û* becomes *e*, *o* and B. *i*, *u* becomes *i*, *u*.

....In by far the greater number of Bantu languages, however, there is no longer any difference between the "close" and "open" vowels of Ur-Bantu, and even where a slight variation might be distinguished, it no longer exists in the mind of the native.

(Meinhof, 1932:25,26)

3.12.1 B. *kî*

3.12.1.1 Ziervogel (1954:24) lists only one derivation in the following two examples:

kî > *šî*: *kxhōšî* (chief), *mušî* (smoke)

and this is the palatal fricative *ʃ*. In the research material a number of derivations are listed and they will all be treated below.

3.12.1.2

Ur-Bantu	Pai	Swati	PSB
<i>kî</i>	fi/si/fi kx ^h ofi (chief) moji (smoke) mojifɔ (relish)	si/fi/ki iŋk ^h osi Zulu: umusi	*tFi *tFi
<i>kîpa</i> ■	mosifia (sinew) ɬefisa (cause to laugh) ■■	uṃsipa ɬeḱisa	

■ The B. form will be quoted when it appears in Meinhof (1932), especially in cases where items were classified wrongly in the research material. The reflex for the gloss 'sinew' is a case in point. One would have expected **mojifia** in Pai if the vowel is 'close', and **mosifia** if the B. vowel is *i*, but the *s* surfaces in both Pai and Swati, yet it is listed in Meinhof (1932:247) as indeed containing the 'close' vowel.

■■ This item also seem out of place because the causative ending in B. is *ya*. The item is included because this 'close' semivowel is derived from the 'close' B. *î*. However, unlike the examples where the B. *î* occurs stem initially, ie as part of the root, no changes take place when this vowel occurs in the suffixes and the consonant remains the same as in the case of B. *ka*:

B. *k* → Sw. *ḱ* → P. *fi*

3.12.1.3 It appears therefore that the only significant derivations produced by the 'close' B. vowel *î*, occurs in the roots and vary from the *palatal* to the *alveolar* voiceless fricatives and in the suffixes it causes no changes:

B.	<i>kî</i>	→	Sw.	<i>si</i>	→	P.	<i>ʃi</i>
				<i>ʃi</i>	→		<i>ʃi</i>
					→		<i>si</i>
				<i>ɸ</i>	→		<i>fi</i>

A whole array of reflexes of the B. *k* appears in Pai when the reflex of close B. *î* follows on the consonant. In Swati suffixes the reflexes are *plosive*, while Pai is consistent in that all the reflexes are *fricatives*, regardless of the environment.

3.12.2 B. *î*

Ur-Bantu	Pai	Swati	PSB
<i>î</i>	<i>si</i> <i>sija</i> (leave) <i>sila</i> (grind)	<i>ʃi/si</i> <i>ʃija</i> <i>sila</i>	<i>*kFi</i> <i>*kFiya</i> <i>*kFida</i>

3.12.2.1 Again the reflex of 'close' vowel *î* has an effect on the preceding consonant in roots only. In the suffixes the consonant does not change, although in Pai the B. vowel seems to stabilize the preceding consonant because none of

the alternations mentioned with B. *ta* occur in the examples in the research material. Cf par 3.2.2, 3.2.2.4, 3.2.2.10, 3.10.2.2:

B.	<i>t</i>	→	Sw.	ts/tf	→	P.	t ^h
					→		r
					→		z _l

In the case of B. *tī* the following reflexes occur:

B.	<i>tī</i>	→	Sw.	ʃi	→	P.	si
				si	→		si

3.12.3 B. *pī*

In this case the reflex of B. *ī* does not change the preceding consonant in Pai but the situation is different in Swati. In the research material only examples with suffixes are listed, but Ziervogel (1954) provides an example that occurs in both Meinhof (1932) and Van der Spuy (1989):

Ur-Bantu	Pai	Swati	PSB
<i>pî</i>	fi	fi/p^{hi}	*pF
<i>pîka</i>	Z. fiŋa (hide) Z. fiiŋala (become dark) molafi (doctor) xalifiŋe (be sharp)	fiŋa Cf xwalala umelap ^{hi} k ^h alip ^{hi} le	*pFica

3.12.3.1 In Pai the consonant stays the same in the root and is also not influenced when the B. 'close' vowel appears in the suffixes. In Swati the consonant changes only when the vowel appears in the root:

B. *pî* → Sw. **fi** → P. **fi**
→ **p^{hi}** → **fi**

Cf par 3.2.3, 3.2.3.3:

Sw. **p^h** → P. **fi**

3.12.4 B. *yî* (yⁱ)

In the research material there seems to be doubt about the correctness of some of the Pai examples and only those listed by Ziervogel (1954:24) are listed in the table below.

Ur-Bantu	Pai	Swati	PSB
<i>yî</i>	ti / ji	tî / 0i / 0e	*ji
<i>yi-ya</i>	t'iβa (know)	at'i	*jiba
<i>-yî</i>	mut'i (village)	umut'i	*muji
<i>yi-ama/tîma</i>	jima (stand)	(i)ma	*yima
<i>yîya</i>	jiβa (steal)	eβa	

3.12.4.1 The B. form of the gloss 'know', does not contain the 'close' vowel, but the sound shift is similar to that of *yi* (cf par 3.10.4.3). In the research material a secondary shift in Pai is listed, viz **ji**, and the examples given are for the glosses 'stand' **jima**, and 'steal' **jiβa**. Again one example does not correspond with the 'close' vowel of B. (the B. item *tîma* may indicate uncertainty about the exact nature of this vowel) while the other example corresponds. In Swati this secondary shift results in a zero realisation everytime.

B. *yî* → Sw. t'i → P. t'i
 → 0 → ji

3.12.5 B. *li*

Three shifts are recorded in both Ziervogel (1954:24) and in the research material. In the root the shift in Pai is consistent: B. *li* > Pai: **dj** and Swati **t'i**, while a secondary shift to Pai **tj'** may be a possibility. The third shift appears in

3.12.6 B. $\underline{v\hat{i}}$

In the research material only one sound shift is indicated viz βi and unfortunately none on the examples appear in Meinhof (1932) and only one in Van der Spuy (1989). In Ziervogel (1954) only the class prefix of Class 8 with variations is listed: *vyi, vi, bi*.

Ur-Bantu	Pai	Swati	PSB
$\underline{v\hat{i}}$	$\beta i/\beta^h i/bi$ $\beta itʃ'a$ (call) $fikl^h a\beta i$ (stabbing pain) $\eta g\alpha\beta ijane$ (monkey) Z. $\beta i/\beta^h i/bi$ (Class 8)	$\mathfrak{b}i/t'i$ $\mathfrak{b}it'a$ $in\lambda a\mathfrak{b}i$ $i\eta g\alpha\mathfrak{b}ijane$ $t'i$	$*bi$ $*bidFa$

3.12.6.1 If these examples are taken as correct reflexes of B. $\underline{v\hat{i}}$, then it seems that this close B. vowel does not influence the preceding bilabial consonant in Pai. In Swati there are two variations: in roots and suffixes the close vowel does not change the preceding consonant and it remains *a bilabial implosive*, while in the prefix it becomes an *ejective alveolar plosive*. When the Swati prefix is compared with Pai, the Pai form is very rare since it does not follow the pattern of any of the other forms used in the same position as Swati t' , cf par 3.10.6.

B.	$\underline{v\hat{i}}$	→	Sw.	$\mathfrak{b}i$	→	P.	βi
		→		$t'i$	→		βi
					→		$\beta^h i$
					→		bi

3.12.7 B. *nî*

The close B. vowel does not influence the alveolar nasal in any significant way and the same alternations as with B. *ni* (Cf par 3.10.7) occur. The following examples (only Pai and Swati) are listed:

Pai	Swati
t'ini (when?)	nini
fini (what?)	jini
mofijni (handle)	ump ^h ini

B. <i>nî</i>	→	Sw. <i>ni</i>	→	P. <i>ni</i>
			→	<i>ji</i>

3.12.8 B. *mî*

The examples listed are confined to suffixes only and no changes take place in the nasal:

Pai	Swati
molemi (farmer)	uṃlimi
mok'it'imi (runner)	uṃgidžimi
romije (sent)	t ^h umile

B. <i>mî</i>	→	Sw. <i>mi</i>	→	P. <i>mi</i>
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3.12.9 B. $y\hat{i}$ (y'i)

The palatal B. consonant does not change under the influence of the close vowel and the reflex in Pai and Swati stays the same (Cf par 3.10.10):

Pai

Swati

$\beta a s e \beta e t' i$ (workers)

$\beta a s e \beta e n t' i$

$\eta g o t' i$ (danger)

$i \eta g o t' i$

B. $y\hat{i}$ → Sw. $t'i$ → P. $t'i$

3.12.10 B. *kû* (Cf par 3.11.1)

This close B. vowel changes the preceding consonant in both Pai and Swati.

Ur-Bantu	Pai	Swati	PSB
<i>kû</i>	ɸu maɸura (fat) fiɸuɸa (chest) leɸulo (foam)*	fu emaɸuts ^h a siɸuɸa	*pFu kipFuba

* This form is singled out as an exception because the form **leɸulo** is expected to appear. No corresponding forms could be found in Nguni.

3.12.10.1 Except for the last example where the voiced glottal fricative of Pai again makes its appearance, the shift caused by the close B. vowel is to a *voiceless palatal fricative* in Pai and a *voiceless dentilabial fricative* in Swati (cf par 3.11.1):

B. *kû* → Sw. **fu** → P. **ɸu**.

3.12.12 B. *pû*

In the research material no examples were found that represent this sound-shift in Pai. This seems highly unlikely since common terms such as 'be equal/resemble', Swati **fana**; 'turn one's back', Swati **fulats^hela**, and 'go out', Swati **p^huma**, occur in Meinhof (1932). In the last example no change appears in the preceding consonant because in Meinhof (1932:221) both the close and open vowels for this gloss are listed: *-pûma (-puma)*, and the Swati form was probably derived from the latter. Ziervogel (1854:24) gives only one example: **lisu** 'stomach of an animal', where the shift is from B. *p* to a *voiceless alveolar fricative* and the comparison will then be the following:

B. *pû* → Sw. **fu** → P. **su**

Cf par 3.11.3:

B. *p* → Sw. **p^h** → P. **f**

3.12.13 B. *yû*

Ur-Bantu	Pai	Swati	PSB
<i>yû</i>	θu	vu	*gFu
<i>-yoyû</i>	kl'ou (elephant) ɽ'au (lion)	inḡovu Cf liḡubesi	*NjogFu

3.12.13.1 The voiced fricative of B. is changed to a zero phoneme in Pai and a *voiced dentilabial fricative* in Swati.

B. *yû* → Sw. *vu* → P. *∅u*

Cf par 3.11.4 where the shift is also indicated as a zero realization.

3.12.14 B. *lû*

Ur- Bantu	Pai	Swati	PSB
<i>lû</i>	ɖu/t'u	ɖy/v	*dFu
<i>lûma</i>	ɖuma (roar)	ɖyuma	*dFuma
<i>lelû</i>	fileɖu (chin)	silevu	*dedFu
<i>kûlû</i>	k ^h uɖu (tortoise)	lufuɖy	
<i>lûya</i>	t'ut'a (leak)	vut'a	

3.12.14.1 The shift is from B. voiced fricative to Pai *voiced retroflexive alveolar plosive* to Swati *breathy voiced alveo-dentilabial affricate*. Ziervogel (1954:24) lists one example where the shift is to an *ejective alveolar plosive* (cf *t'ut'a*) and Swati also has the alternant *v*. Unlike the open B. vowel *u* where no change occurs in the preceding consonant, the close vowel consistently changes the consonant.

B. *lû* → Sw. *dɿ* → P. *ɖu*
 → *v* → *t'u*

3.12.15 B. *ɣû*

Ziervogel (1954:24) lists only one shift in Pai: **pf'**.

Ur-Bantu	Pai	Swati	PSB
<i>ɣû</i>	pf'u/k'u/βu	vu	*bFu
<i>ɣûna</i>	pf'una (reap) k'ula (open) βuɖwa (become ripe/cooked)	vuna vula vutf ^h wa	*bFuda

3.12.15.1 A variety of reflexes occur in Pai. From a *voiced bilabial fricative* to an *ejective dentilabial affricate* to an *ejective velar plosive*. In Swati the *voiced dentilabial fricative* occurs consistently.

B. *ɣû* → Sw. *vu* → P. *βu*
 → *pf'u*
 → *k'u*

Cf par 3.11.6:

B. *ɣu* → Sw. *βu* → P. *βo*

3.13 Consonants Preceding B. Semi-Vowels.

According to Meinhof (1932:28) two sets of semi-vowels are distinguished in B., ie *y* (note that the symbol used is *not* italic) and *w* that developed from the open vowels *i* and *u* respectively and *ÿ* and *ŵ* that developed from the 'close' vowels *î* and *û* respectively. The sound shifts will not be presented with the same detail as above. The Pai and Swati examples will be given first and then the differences between the sounds of the two languages will be summarised in the same manner as above except that the tables will no longer be used and no further comments will follow each section.

3.13.1 B. *kya*

Pai	Swati
ʃa (dawn)	sa
ʃa (possessive concord Cl 7)	sa

B. *kya* → Sw. *sa* → P. *ʃa*

3.13.2 B. *kÿa*

Pai	Swati
ʰwɛʃa (cause to carry)	ʰwɛsa
ɸɔʃa (throw)	pʰɔsa
Z. t'uʃa (take away)	susa
pf'uʃa (waken)	vusa

B. *kÿa* → Sw. *sa* → P. *ʃa*

3.13.3 B. *t̂ya* and *k̂ya*

Pai	Swati
βesa (kindle a fire)	βasa
sala (remain)	sala

B. *t̂ya/k̂ya* → Sw. **sa** → P. **sa**

3.13.4 B. *pya* and *p̂ya*

Pai	Swati
swa (burn)	ja
swa (new)	ja

B. *pya / p̂ya* → Sw. **ja** → P. **swa**

3.13.5 B. *yya*

Pai	Swati
ja (go)	ja
βulaja (kill)	bulala
xwaja (scrape)	xwaja

B. *yya* → Sw. **ja/la** → P. **ja**

3.13.6 B. *lya*

Pai	Swati
la (poss. concord Cl 5)	la
dʒa (eat)	ɬa
ledʒaxa	lidʒaxa
fībēdʒane (rhinoceros)	ɸēdʒane
moŋak'ɔ	umŋaɰa

B.	<i>lya</i>	→	Sw.	la	→	P.	la
		→		ɬa	→		dʒa
		→		dʒa	→		dʒa
		→		ɲa	→		ɲa

3.13.7 B. *l̥ya*

	Pai	Swati
	βitʃ'a (call)	βit'a
	xaratʃ'a (bother)	k ^h ats ^h at'a
	t'a (poss. concord Cl 10)	t'a
Z.	βotʃ'a (ask)	βut'a

B.	<i>l̥ya</i>	→	Sw.	t'a	→	P.	tʃ'a
					→		t'a

3.13.8 B. *yya*

Pai	Swati
fisuβja (worthless animal)	
βjaje (how?)	ndzani
moβja (small kind of bee)	

B. *yya* → Sw. → P. βja

3.13.9 B. *yŷa*

Pai	Swati
ts'wala (bear)	tala

B. *yŷa* → Sw. t'a → P. ts'wa

3.13.10 B. *kwa*

Pai	Swati
xa (poss. concord Cl 15)	ḵwa
fikhwama (bag)	sikhwama

B. *kwa* → Sw. ḵwa → P. xa
 → k^hwa → k^hwa

3.13.11 B. *kwa***Pai**

fwa (die)

Swati

fa

B. *kwa* → Sw. **fa** → P. **fwa**3.13.12 B. *twa***Pai**t^hwala (carry)**Swati**t^hwalaB. *twa* → Sw. **t^hwa** → P. **t^hwa**3.13.13 B. *pwa***Pai**pf^ha (dry up)pf^haja (dash to pieces)**Swati**

∅

B. *pwa* → Sw. ∅ → P. **pf^ha**

3.13.14 B. *pŵa*

	Pai	Swati
Z.	fana (resemble)	fana

B. *pŵa* → Sw. **fa** → P. **fa**

3.13.15 B. *ywa*

	Pai	Swati
	wa (poss. concord Cl 3)	wa
	wa (fall)	(i)wa
	fiawa (ask)	

B. *ywa* → Sw. **ŵwa** → P. **ŵwa**

3.13.16 B. *yŵa*

	Pai	Swati
Z.	uk'wa (perceive)	va

B. *yŵa* → Sw. **va** → **k'wa**

3.13.17 B. *lwa*

Pai	Swati
lwa (fight)	lwa

B. <i>lwa</i>	→	Sw. lwa	→	P. lwa
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3.13.18 B. *lwa*

Pai	Swati
βudwa (ripen)	vutf ^h wa
k'wala (close)	vala

B. <i>lwa</i>	→	Sw. tf^hwa	→	P. ɖwa
			→	va

3.13.19 B. *ywa*

Pai	Swati
β ^j api (grass)	tf'ani
β ^j ala (beer)	tf'wala

B. <i>ywa</i>	→	Sw. tf'a	→	P. β^ha
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3.13.20 B. ywá**Pai**

ants'wa (be better)

ts'wala (dress)

Swati

B. ywá → Sw. ∅ → P. ts'wa

This concludes the section on the Pai and Swati reflexes of B. consonants and semi-vowels. In the following chapter the morphology will briefly be investigated in an attempt to find further evidence of correspondences between Pai and Swati before all of the data can be put into perspective.

CHAPTER 4

Morphological Survey

4.1 INTRODUCTION

This chapter includes a description of aspects of the morphology of Pai that are relevant to the aims of this study. Certain peculiar characteristics of Pai will be high-lighted and the Nguni-Sotho connection will be further pursued. The grammar of Pai has been recorded by Ziervogel (1954), but certain sections need to be looked at again from a Swati point of view. Changes that have taken place since Ziervogel did his research have also been recorded where these topics are discussed. The selected topics are:

- a) the noun and its prefixes and suffixes
- b) the absolute pronoun
- c) the quantitative pronoun
- d) the demonstrative pronoun
- e) concordial prefixes
- f) aspectual prefixes
- g) verbal suffixes
- h) the relative construction

The following procedure will be followed in representing the examples in sentences:

the ordinary orthography will not be included in all the sections;
IPA phonetic script will be used for the Pai examples and
the Swati equivalents will be in ordinary script and

4.2 THE NOUN CLASSES OF PAI

4.2.1 The following noun classes are found in Pai:

Class 1	Sw.	Class 2	Sw.
[mo-] mu-	um(u)-	[βa-]	ba-
[mojisenana] 'boy'	umfana	[βajisenana]	bafana
[mojeni] 'visitor'	umvakashi	[βajeni]	bavakashi

Phonetically the Pai prefixes are the same as NS, but at the same time are very similar to Swati, eg the absent pre-vowel in Class 2 in both Pai and Swati.

4.2.2 Class 1 also has the following two alternative prefixes under certain conditions:

- (a) The phonological rule **mo-** + **β** > **m̥-** has the syllabic nasal prefix **m̥-** as a result. However, examples were quite often heard where **mo-** did not completely assimilate with **-β** to **m̥-** and a nasal compound **mb-** was formed.

Class 1	Sw.	Class 2	Sw.
[m̩] / [mb]	um(u)-	[βa-]	ba-
[m̩akl'i] x [mbakl'i] 'carpenter'	umbati	[βaβakl'i]	babati
[m̩olai] x [mbolai] 'killer'	umbulali	[βaβolai]	babulali

It is not exactly clear whether the nasal compound is in fact a compound and not a syllabic nasal + bilabial consonant. In Swati a similar form appears, but the nasal is definitely syllabic: **um̩fat'i**.

- (b) The prefix **ɲw-** that results from one of two phonological rules i.e. **mo- + -a > ɲw(a)-** and **mo- + ε > ɲw(ε)-**. Nouns with the singular prefix **ɲw(a)-** take the regular Class 2 prefix **βa-** in the plural, while nouns with the singular prefix **ɲw(ε)-** have **β(ε)-** as prefix in the plural:

Class 1	Sw.	Class 2	Sw.
[ɲwa] / [ɲwε]	um(u)	[βa] / [βε]	ba-
[ɲwana] 'child'	umntfwana	[βana]	bantfwana
[ɲwek'i] 'bride'	makoti (Cl. 1(a))	[βek'i]	bomakoti (Class 2(a))

4.2.3 As in Swati, sub-classes for each of Class 1 and Class 2, i.e Class 1(a) and Class 2(a) occur. Class 1(a) has no overt prefix, while nouns in Class 2(a) have the prefix βɔ-:

Class 1(a)	Sw.	Class 2(a)	Sw.
[t'it'ane] 'father'	babe	[βɔt'it'ane]	bobabe
[k'ɔk'wane] 'grandparent'	Cf khokho	[βɔk'ɔk'wane]	bokhokho
[ŋwavenɔga] 'wasp'	umnyovu (Cl 3)	[βɔŋwavenɔga]	iminyovu (Cl 4)

In Swati a large number of nouns also appear in Class 1(a) without a prefix while a fewer number take the prefix u-. Note the initial sound of **ngwavenga** that is not a class prefix in this instance. The Class 2(a) prefix corresponds with Swati.

4.2.4 Class 3 and Class 4: The regular prefixes are **mo-** and **me-** respectively.

Class 3	Sw.	Class 4	Sw.
[moxwa] 'knife'	umukhwa	[mexwa]	imikhwa
[monak'ɔ] 'door'	umnyango	[menak'ɔ]	iminyango

In Swati only the nasal classes still retain the pre-prefix. The fact that other Swati classes have lost the pre-prefix may be an indication of later Sotho influence.

4.2.5 Like Class 1, Class 3 of Pai has alternative prefixes that occur in nouns whose stem commences with a vowel:

Class 3	Sw.	Class 4	Swati
[ŋwaji] 'weed'	Cf likhula (Class 5)		(no plural)
[ŋwaxa] 'year'	unyaka (Class 3(?))	[meŋwaxa]	iminyaka (Class 4)
[moŋwaxa] 'year'	umnyaka	[meŋwaxa]	iminyaka (Class 4)

In the case of **ŋwaxa**, Ziervogel (1954:38) says that the plural form remains unchanged. However, in the research material both singular forms have the plural **meŋwaxa**. The uncertainty regarding the exact nature of the mid-high and high vowel is again evident in all the noun classes where it occurs. In the research material it was recorded as **e**, while Ziervogel (1954) uses **i** throughout.

When the noun stem commences with the consonant **β**, the assimilation rule **mo- + β > m** applies. As with Class 1, examples were quite often heard in which the assimilation was incomplete, i.e. **mo- + -β > mb-** and again it is not indicated whether the nasal is syllabic or not.

Class 3		Sw.
[ṃala] x [mbala]	'colour'	umbala
[ṃoso] x [mboso]	'government'	umbuso

At the time the research was carried out, we were of the opinion that these nouns could be used with a singular or plural meaning, without the prefix being

changed. For **mukl'a** 'hares' however, the alternative plural **memukl'a** was also heard. This observation is not extraordinary. My own observations have indicated that mother tongue speakers, of *inter alia* Swati, often seem to pronounce the Class 4 (plural) prefix in very much the same manner as the Class 3 prefix. In fast speech the **mi-** also becomes syllabic: **m̩fula** (rivers) and it is therefore difficult to distinguish between the singular and plural forms. The artificial atmosphere created by the research situation may also be conducive to such responses. However, there is no doubt that definitive plural forms for these words exist in Swati, cf *imibala, imibuso, imifula, etc.*

4.2.6 The prefixes for Classes 5 and 6 are **le-** and **ma-** respectively. Except for the initial vowel of Class 6, the Swati prefixes are the same as those of Pai:

Class 5	Sw.	Class 6	Sw.
[lek'at'a] 'egg'	licandza	[mak'ata]	emacandza
[let'enɔ] 'tooth'	litinyo	[mat'enɔ]	ematinyo
[leʃome] 'ten'	lishumi	[maʃome]	emashumi
Z. <i>lihlo</i> 'eye'	lihlo/liso	<i>mahlo</i>	emehlo

The following are examples of Class 6 nouns that do not have a corresponding singular form in Class 5:

Class 6	Sw.
[mat ^h e] 'saliva'	ematse

Z. *matzhi* 'saliva' Note the difference in the quality of the final vowel.

[maʃura] 'fat'	emafutsa
[mat'i] 'water'	emanti
[makl'a] 'strength'	emandla

The phonetic correspondences between the Pai and Swati forms are obvious.

4.2.7 The prefixes of Classes 7 and 8 are **fi-** and **βie-** respectively. The prefix **βje-** is often replaced by some informants with **βe-**:

Class 7	Sw.	Class 8	Sw.
[fiɟuβa] 'chest'	sifuba	[βieɟuβa]	tifuba
[fielɛɟu] 'chin'	silevu	[βieleɟu]	tilevu
[fielɛma] 'fool'	silima	[βielema]	tilima

The differences between the consonants of these prefixes in Pai and Swati are remarkable. In Class 7 the *voiceless alveolar fricative* of Swati has a *voiced glottal fricative* counterpart in Pai. In Class 8 the *ejective alveolar plosive* of Swati becomes a *palatalised bilabial fricative* in Pai. Even Van der Spuy (1989:157) postulates a PSB voiceless consonant for the Class 7 prefix: ***ki**. Note also that the concords of this class have a voiceless palatal ʃ as an initial sound as is the case in Tsonga, cf par 4.5.1.1: **fiɟuβa ʃi**.

As far as the Class 8 prefix goes, the issue becomes confused. Although the Swati consonant is a *voiceless alveolar* (as is typical of Tekela), this does not detract from the fact that in both the Nguni and Sotho languages the

consonant is a *voiced alveolar*. Yet in Pai the place of articulation shifts to labial and palatal. Attempts to find a similar form in nearby languages proved fruitless - only Venda with *swi-* is remotely similar.

4.2.8 According to Ziervogel (1954:37, 39) Class 9 nouns are characterised by an initial vowel *i-* "when the noun stands by itself". He lists examples such as the following (in his orthography):

	Class 9	Swati
Z.	<i>imbya</i> 'dog'	inja
Z.	<i>intšu</i> 'sheep'	imvu
Z.	<i>itšhwena</i> 'baboon'	imfene
Z.	<i>ikxomu</i> 'beast'	inkhomo

Ziervogel's explanation for the presence of the vowel *i-* in Class 9 nouns was found to be incorrect. This *i-* appeared to be an identifying copulative prefix and not a nominal pre-prefix as suggested by him. Thus *imbya*, *intšu*, *itšhwena* etc. do not mean 'dog', 'sheep', 'baboon', etc. but 'it is a dog', 'it is a sheep', 'it is a baboon'. This explains why the *i-* never appears with Class 9 nouns that function as the complements of negative copulatives. Cf. *tšhwena* and *ntf'u* in:

[imβja a se tšhwena]

It is a dog, not a baboon

[ikxhomo a se ntʃ'u]

It is a beast, not a sheep

This was the conclusion when the research was carried out. However, it may also be that in the negative copulative the initial vowel is elided in any case. Nevertheless, cf also the absence of *i-* in other instances where class 9 nouns clearly do not have a copulative meaning:

[mβʲa e fiere fiok'o]

'The dog caught a fowl'

It will therefore be assumed that there is no so-called "pre-prefix" present in Class 9 nouns in Pai. If the stem is polysyllabic, Class 9 nouns have no overt class prefix. Nouns with monosyllabic stems however take a nasal prefix, as is the case in the other Sotho languages (Cf Ziervogel 1954:39).

The prefix for Class 10 is **t'e-**:

Class 9	Sw.	Class 10	Sw.
[fiok'o] 'fowl'	inkhukhu	[t'efiok'o]	tinkhukhu
[k'ats'e] 'cat'	likati (Cl 5)	[t'ek'atse]	emakati (Cl 6)
[k'oma] 'song'	ingoma	[t'ek'oma]	tingoma

One example was listed incorrectly: the **ni-** in the following word is not a prefix but part of the stem (cf. the plural form):

[nip'a] 'belly'	sisu (Cl 7)	[t'enip'a]	tisu (Cl 8)
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Note: Class 11 apparently does not exist in Pai.

4.2.9 According to Ziervogel (1954:39) the prefix of Class 14 is **βo-**. He states however that **βo-** has in some areas been replaced by **βie-**. The prefix that was found to be used most often during the research was **βo-**. Some informants however replaced it incidentally with **βie-**.

Class 14	Sw.
[βosoxo] 'night'	busuku
[βofik'a] x [βiefik'a] 'winter'	busika
[βolok'ɔ] x [βielok'ɔ] 'cow dung'	bulongo/bulongwe*

*Note that the Swati terminative is not uncommon as an alternant in words ending in *-o*.

Noun stems that commence on a vowel, have the prefix **βi-**:

[βjani] 'grass'	tjani
[βjala] 'beer'	tjwala
[βjɔk'ɔ] 'brains'	Cf buchopho

These nouns seldom take a plural, although the prefix of class 6 is sometimes used for this purpose. It must be noted here that these observations were made at the time the research took place, and comments regarding the validity of some of these statements are my own, and they come at a much later stage. Two rules apply in these instances:

- (a) If the prefix is **βo-**, it is replaced by the prefix **ma-** of Class 6:

[βosoxo] 'night'	[masoxo]
[βolok'ɔ] 'cow dung'	[malok'ɔ]

- (b) If the prefix is **βⁱ-**, the prefix **ma-** is prefixed to the noun without further change:

[β ⁱ ani] 'grass'	[maβ ⁱ ani]
[β ⁱ ala] 'beer'	[maβ ⁱ ala]

These plural forms are rare in the Bantu languages. Except for the word for 'cow dung', the other plural forms may have been the result of prompting by the researchers or the nature of the questions. The informants may have opted for forms by analogy of a form they know exists. The word for 'cow dung' is a case in point. In Swati the generic term is *bulongwe* or *bulongo*, but when the dung has been made into a flat cake (by hand) and thereafter dried to be used as fuel for cooking, it is called *lilongwe* (Cl 5) and *emalongwe* (Cl 6) in the plural. This is probably where the plural form **malok'ɔ** of Pai comes from. The informants knew of the existence of such a form. A plural form (in Swati) for *tjwala* such as *ematjwala* (different kinds of alcoholic drinks) may be heard in the townships. As far as the other words are concerned, it is doubtful whether this plural form really exists.

4.2.10 The prefix of Class 15 is **xo-**:

Class 15

[xo βolaβola] 'to speak'

[xo kl^hɔkl^hɔβala] 'to squat'

Sw.

kukhuluma

Cf kukhokhobala

4.2.11 The prefix of Class 16 is **fa-** as in

Class 16

[fase] 'under'

[fakl'ε] 'outside'

Sw.

phansi/entansi

phandle

4.2.12 The prefix of Class 17 is **xo-** as in:

Class 17

[xole] 'far'

[xot^hina] 'near'

Sw.

cf kudzeni/kudze

cf kudvute

4.2.13 The prefix of Class 18 is **mo-** as in:

Class 18

[mot^haxo] 'behind'

[mosedza] 'the other side'

Sw.

emuva

cf phesheya

4.3 THE NOMINAL DERIVATIVES

The nominal derivatives which will be dealt with are (a) deverbatives, (b) diminutives; and (c) locatives.

4.3.1 Deverbatives

During the investigation of deverbatives in Pai, it came to light that the rule according to which impersonal deverbatives are formed is not a productive one. The informants were quite obviously not inclined to accept examples such as those listed below. They preferred to replace the deverbative with an infinitive construction instead:

[-ap'ara] dress: *([moap'arɔ] rejected and replaced with [xo ap'ara xa...] 'the dressing of..')

Sw. **kugcoka kwa..**

Cf. also:

[-dumelisa] 'greet': *[tumeliso], [xo dumelisa xa...]

[-xolisa] 'bring up': *[kx^holisɔ], [xo xolisa xa...]

Sw. **kukhulisa kwa..**

The same process takes place in Swati.

Personal deverbatives however do occur in Pai:

[-sek'a] 'milk' :	[mosek'i] 'one who milks'	Sw. umsengi
[-lema] 'plough' :	[molemi] 'farmer'	umlimi

Two facts pertaining to the formation of deverbatives in Pai were not mentioned by Ziervogel, i.e. that:

- (a) the rule according to which impersonal deverbatives are formed is unproductive; and
- (b) the assimilation rule **mo-** + **-β** > **mm** has an incomplete counterpart, i.e. **mo-** + **-β** > **mb**. This may be a remainder of an earlier Nguni connection.

4.3.2 *Diminutives*

As a rule, diminutives are formed with the suffix **-nana**, and, to a lesser extent, **-ana**. Diminutive formation in Pai is much simpler than in NS or Swati since palatalisation does not occur:

4.3.2.1 *Diminutives with [-nana]:*

[βaeni] 'visitors' :	[βaeninana]
[βidʒo] 'food' :	[βidʒonana]
Sw.	kudlana

	[marap'ɔ] 'bones' :	[marap'ɔnana]
Sw.		ematsanjana

4.3.2.2 *Diminutives with [-ana]:*

	[k'oloβɛ] 'pig'	[fik'oloβjana]
Sw.		ingulutjana

	[fiok'o] 'fowl'	[fifiok'wana]
Sw.		inkhukhwana

	[mβja] 'dog'	[himβjana]
Sw.		injana

A general rule in diminutive formation which was not observed by Ziervogel (1954:40) is the following: When diminutives are formed from nouns that refer to non-human objects in the singular, such nouns take the prefix of Class 7 as in the examples above. This is certainly a remarkable feature of Pai although it also occurs in Venda. Cf also,

	[xaxane] 'bat' (1a) :	[fixaxanenana]
	[fiembe] 'shirt' (9) :	[fifiembenana]
	[lek'at'a] 'egg' (5) :	[fik'at'anana]

4.3.3 *Locatives*

4.3.3.1 Locatives are formed by the simple rule of affixing **-ni** to the noun. If nouns end in **-a** the latter changes to **-e**. As with the diminutive, no palatalisation takes place:

	[p'itʃ'a] 'pot'	[p'itʃeni]
Sw.		embiteni
	[nama] 'meat'	[nameni]
Sw.		enyameni
	[kl'εβε] 'ear'	[kl'εβeni]
Sw.		endlebeni

Cf. also nouns with the final syllable **-ni**:

	[βʲani] 'grass'	[βʲanini]
Sw.		etjanini
	[ŋwani] 'weed'	[ŋwanini]
	[mofini] 'handle'	[mofinini]
Sw.		emphinini

4.3.3.2 In his description of the locatives of Pai, Ziervogel (1954:83) distinguishes three types of locatives. The first one is the one above where **-ni** is suffixed to the noun. Except for the absence of the initial **e-** in Swati, this form of the locative is the same as in Swati. The second type he describes in the following way:

ordinary nouns which for some unknown reason do not change in the locative.

and he gives the following examples:

<i>musixatzhi</i> (during the day)	Sw. emini
<i>vyisixu</i> (at night)	ebusuku
<i>liklovo</i> (in summer)	ehlobo
<i>munyako</i> (at the door)	emnyango

When the Swati equivalents of these items are compared, it is clear that these forms also do not change in Swati, ie they do not take the locative suffix. The only difference is that a locative prefix is used in Swati and this prefix has apparently disappeared in Pai (cf also the examples with **-ni**).

4.3.3.3 The third group is described as,
nouns of class 9 which do not take their own possessive concord.

The Swati equivalents of his examples indicate that some of these terms correspond with items in Class 16 with the prefix **pha-**:

<i>ipili</i> (in front)	Sw. embili (cf Zulu phambili)
<i>itzini</i> (inside)	phakatsi
<i>inkle</i> (above)	etulu (cf Zulu phezulu)
<i>iklasi</i> (lower down)	entansi (cf Zulu enzansi) and
<i>xaya</i> (at home)	ekhaya .

Both these latter types distinguished by Ziervogel correspond with the Nguni locative. The last example should have been classified under the second group above if the Swati form is considered. Ziervogel classifies it here because it also uses the possessive concord *xa-* as in the examples below, but this can only be because of assimilation. Ziervogel (1954:83) also mentions that the initial vowel is more often than not elided and it is probably this initial vowel that has prompted him to classify these as *nouns* belonging to Class 9 while they can in fact be described as true adverbs. These words are used exactly in the same way as their Swati counterparts, ie with the possessive concord **kwa-** (cf the Swati examples that are in bold):

hasi xa-murana (under the tree)

Sw. **phansi kwesihlahla**

xari xa-vatzhu (between the people)

Sw. **phakatsi kwebantfu**

mutzhaxu xa-ka (behind me)

Sw. **emva kwami**

pili xa-lo (before this one)

Sw. **embili kwa lo**

and then Ziervogel (1954:84) also gives the example

xaya xa-ka (at my home)

ekhaya lami

These constructions display a typical Nguni structure and it is again surprising that Ziervogel did not make this connection.

4.4 THE PRONOUNS OF PAI

The following pronouns will be discussed:

- a) absolute
- b) quantitative
- c) possessive
- d) demonstrative
- e) interjective

4.4.1 The Absolute Pronoun

4.4.1.1 The absolute pronoun consists of (a) a concordial element derived from the class prefix, (b) a root which is *-ɔ-* for all noun classes, and (c) a suffix *-na* cf.:

	Pai	Sw.		Pai	Sw.
1.p.s.	[ni]	mine	1.p.pl.	[runɛ]	tsine
2.p.s.	[wɛnɛ]	wena	2.p.pl.	[dunɛ]	nine
Class 1.	[jɛnɛ] x [ɛnɛ]	yena	Class 2.	[βɔna]	bona
Class 3.	[wɔna] x [ɔna]	wona	Class 4.	[yɔna]	yona
Class 5.	[lonɛ]	lona	Class 6.	[ɔna]	ona
Class 7.	[ʃɔna]	sona	Class 8.	[βjɔna]	tona
Class 9.	[jɔna]	yona	Class 10.	[t'ɔna]	tona
Class 14.	[β'ɔna]		Class 15.	[xɔna]	

4.4.1.2 A comparison of this paradigm with the one given by Ziervogel (1954:42) reveals the following:

- (a) The absolute pronouns **na** and **mini** listed by Ziervogel as alternatives to **ni** for the 1st.p.s. were not heard during the research project.
- (b) The pronoun **wena** given by Ziervogel as an alternative to the 2nd.p.s. **wene** was unacceptable to the informants. This conforms to the Swati tendency to change the vowel to **-e**.
- (c) The pronouns **jeni** and **jena** listed by Ziervogel for Class 1 were rejected and replaced with **jene** which sometimes varies with **ene**.
- (d) The pronoun **wona** listed by Ziervogel for Class 6 was found to be **-ona**. This is also a form used in the Nguni languages.
- (e) From Class 2 onwards the Pai pronouns are very similar to those of Swati.

4.4.2 *The Quantitative Pronoun*

(Ziervogel, 1954:52)

Two sets of quantitative pronouns are distinguished i.e. (a) an exclusive set meaning "alone" (i.e. excluding others), and (b) an inclusive set meaning all (i.e. including others).

4.4.2.1 *The exclusive quantitative*

This pronoun consists of (i) a concordial element derived from the class prefix, and (ii) the root *-ɔfi* or *-ɛfi*. It is obvious that, except for the initial vowel, this form is different from the Swati *-odvwa*, and the Swati equivalents will not be listed.

1.p.s.	[nɔfi]	1.p.pl.	[fiɔfi]
2.p.s.	[wɛfi]	2.p.pl.	[lɔfi]
Class 1	[jɛfi]	Class 2	[βɔfi]
Class 3	[wɔfi]	Class 4	[jɔfi]
Class 5	[lɔfi]	Class 6	[ɔfi]
Class 7	[ʃɔfi]	Class 8	[βʲɔfi]
Class 9	[jɔfi]	Class 10	[t'ɔfi]
Class 14	[βʲɔfi]		
Class 15	-		

Except for differences in the prefix (concord), this pronoun is the same as in Tsonga. Minor differences exist between this paradigm and the one given by

Ziervogel:

- (a) The pronoun **nɔfi** listed by Ziervogel as an alternative to 2.p.pl. **lɔfi** was not accepted by the informants.
- (b) No "natural" examples were found of exclusive quantitatives in Class 15 and the locative classes. Ziervogel however listed **xɔfi** for Class 15 and **xɔfi** for the locative classes.

4.4.2.2 *The inclusive quantitative*

This pronoun consists of (i) a concordial element derived from the class prefix, and (ii) the stem **ɔɛ**. Although both vowels correspond to the Swati form, the consonant is completely different: **-onkhe**.

1.p.s. [-]	1.p.pl. [βɔɛ]x[fiɔɛ]
2.p.s. [-]	2.p.pl. [βɔɛ]
Class 1 [-]	Class 2 [βɔɛ]
Class 3 [(w)ɔɛ]	Class 4 [jɔɛ]
Class 5 [lɔɛ]	Class 6 [ɔɛ]
Class 7 [ʃɔɛ]	Class 8 [βʃɔɛ]
Class 9 [jɔɛ]	Class 10 [t'ɔɛ]
Class 14 [βʃɔɛ]	
Class 15 [xɔɛ]	

The following differences are observed when this paradigm is compared with the

one presented by Ziervogel:

- (a) Ziervogel listed inclusive quantitative pronouns for plural classes only. Hence the pronouns (w)ɔle (class 3), lɔle (class 5), ʃɔle (class 7) and jɔle (class 9) do not appear in his description.
- (b) Apart from the pronoun fiɔle for the 1.p.pl. which is the only one mentioned by Ziervogel, an alternative form i.e. βɔle was found to be the one which is most commonly used.
- (c) The pronoun βɔle given for 2.p.pl. above is not mentioned by Ziervogel. He listed nɔle and lɔle instead - both of which were unacceptable to the informants.

4.4.3 *The Possessive Pronoun*

4.4.3.1 The following possessive pronouns were listed:

	Pai	Swati		Pai	Swati
1.p.s.	[k'a]	mi	1.p.pl.	[xeri], [xeru], [rune]	itfu
2.p.s.	[xo]	kho	2.p.pl.	[xeni], [xenu], [dune]	inu
3.p.s.	[xe]	khe	3.p.pl.	[βo-nā]	bo

Examples of usage:

Pai	[ŋwana wa k'a]	[βana βa xeri/xeru/rune]
	*Ngwana wa ka.	Bana ba xeri/xeru/rune.
Sw.	Ngumntfwana wami.	Bantfwana betfu.
	<i>It is my child</i>	<i>It is our children</i>

*The 'ordinary' orthography is again used here.

For the other classes the possessive construction consists of (i) a possessive particle followed by (ii) a noun or its corresponding absolute pronoun (which is usually abbreviated) and which denotes the possessor:

Pai	[mat ^h ɔle a t'ekx ^h ɔmo] or [mat ^h ɔle a t'ɔ(-na)]
	Mathole a to.
Sw.	Ematfole ato.
	<i>Calves of the cattle</i>

4.4.3.2 The following differences exist between the possessive pronouns listed here and those given by Ziervogel:

- (a) for the 1st p.p1. Ziervogel cites **rune** and **xeru** as above, but he does not mention **xeni**. The pronoun **iru** listed by Ziervogel was unacceptable to the informants.
- (b) The pronouns **xeni** and **xenu** listed for the 2nd p.p1. above are not

mentioned by Ziervogel. He listed **inu** which again, was not accepted by the informants.

- (c) According to Ziervogel the 3rd p.s. **xε** has an alternative form **xwe**. This could not be confirmed.

4.4.4 *Demonstrative Pronouns*

(Ziervogel (1954:32, 42))

Ziervogel draws a distinction between copulative demonstratives and demonstratives. He remarks as follows with regard to the latter:

"Pai has two sets of demonstrative forms,

- 1) the Swazi-Tsonga type, and
- 2) the Sotho type"

4.4.4.1 *The Swazi-Tsonga type*

According to Ziervogel this type is composed of **1a-** and the demonstrative stem which is apparently derived from the class prefix with assimilated initial vowel in the non-nasal classes, and in the nasal classes, only the vowel of the class prefix. This agrees with the formation of the Swazi and Tsonga demonstratives. In a footnote on p 42, Ziervogel explains the existence of this demonstrative in the following way:

In the neighbouring Kutswê and Pulana only two demonstratives are used, corresponding to the 1st and 3rd distances of other Sotho dialects. That Pai should have three distances may be due to Swazi influence, or the gradual loss of II may be due to the influence of Kutswê and Pulana.

From the point of view of this study, the latter statement would be more acceptable because it appears that the Sotho influence on Pai came about at a later stage and that Pai may have had three positions originally.

Three positions are distinguished for each class.

	I	Sw.	II	Sw.	III	Sw.
Class 1	[lɔ]	lo	[lɔwɔ]	lowo	[lɔwa]	loya
Class 2	[laβa]	laba	[laβɔ]	labo	[laβaja]	laba
Class 3	[lɔ]	lo	[lɔwɔ]	lowo	[lɔwa]	lowa
Class 4	[le]	le	[lelɔ]	leyo	[leja]	leya
Class 5	[lɔli]	leli	[lɔlɔ]	lelo	[lɔla]	lela
Class 6 1a	[lawa]	la	[lawɔ]	lawo	[lawa]	lawa
Class 7	[leʃi]	lesi	[leʃɔ]	leso	[leʃija]	lesa
Class 8	[leβi]	leti	[leβɔ]	leto	[leβja]	leta
Class 9	[le]	le	[lejɔ]	leyo	[leja]	leya
Class 10	[let'i]	leti	[let'ɔ]	leto	[let'a]	leta
Class 14	[leβji]	lobu	[leβjɔ]	lobo	[leβja]	loba
Class 15	[lɔxu]	loku	[lɔxɔ]	loko	[lɔxa]	lokwa

The following differences exist with Ziervogel's paradigm:

- (a) The second and third position of the Class 1 demonstrative were found to be **lɔwɔ** and **lɔwa** respectively, while Ziervogel found **lɔjɔ** and **lɔja**.
- (b) The third position of the Class 2 demonstrative appeared to be **laβaja**, while Ziervogel noted **laβa**.
- (c) The first position of the Class 6 demonstrative has **lawa** as an alternative to **1a**. Ziervogel mentions only the latter.
- (d) The third position of the Class 7 demonstrative was given as **lefija** while Ziervogel listed **lefa**.
- (e) The following three positions were listed for all the locative classes:

[1a] (I) [lawɔ] (II) [lawa] (III)

Ziervogel however found separate sets for class 16 and 17, i.e.:

Class 16: [laɸa] (I) [laɸɔ] (II) [laɸa] (III)

Class 17: [lɔxu] (I) [lɔxɔ] (II) [lɔxa] (III)

4.4.4.2 *The Sotho type*

There are no obvious reasons why Ziervogel regards the second set of demonstratives as the "Sotho Type". It seems as if his classification of these demonstratives is based on the fact that the demonstrative element **la-** that is a typical structural feature of Nguni-type demonstratives, does not appear in them. The origin of this type of demonstrative is not quite clear and it may be related to one of the Tsonga dialects, however no evidence of this could be found. Here

also three positions can be distinguished:

	I	II	III
Class 1	[k'u]	[k'uwo]	[k'uwa]
Class 2	[βa]	[βawo]	[βaja]
Class 3	[k'u]	[k'uwo]	[k'uwa]
Class 4	[k'i]	[k'ijo]	[k'ija]
Class 5	[li]	[lijō]	[lija]
Class 6	[k'a]	[k'awo]	[k'aja]
Class 7	[ji]	[jijō]	[jija]
Class 8	[βji]	[βijō]	[βija]
Class 9	[k'i]	[k'ijɔ]	[k'ija]
Class 10	[t'i]	[t'ijō]	[t'ija]
Class 14	[βji]	[βijō]	[βija]
Class 15	[xu]	[xujō]	[xuja]

The following differences exist between this paradigm and the one given by Ziervogel:

- (a) The position II demonstrative of Class 1 was found to be **k'uwo**, while Ziervogel noted **k'ujō**.
- (b) The position III demonstrative of Class 6 appeared to be **k'aja** while Ziervogel listed **k'awa**.
- (c) Ziervogel quoted separate sets of demonstratives for Classes 16 and 17, i.e.:

Class 16:	[fia] (I)	[fajō] (II)	[faja] (III)
Class 17:	[xu] (I)	[xujō] (II)	[xuja] (III)

With the exception of **fiaja** (III) these were all rejected by the informants and replaced with the Nguni-type of demonstratives for the locative classes, i.e. **1a** (I), **lawɔ** (II) and **lawa x fiaja** (III).

No obvious differences were observed between the usage of the Nguni and Sotho type of demonstratives, except for the fact that the Nguni type may either precede or follow the noun, while the Sotho type generally follows the noun. Cf.

[lɔ mona] x [mona lɔ] and
[mona k'u] 'this man'

4.4.4.3 *The copulative demonstrative*

This is the demonstrative copula or the *na*-copula as it is known in Swati (Taljaard et al 1991). Ziervogel (1954:33) calls it the copulative demonstrative. This demonstrative of Pai is derived from the Swazi-Tsonga type of demonstrative only. This is done by prefixing **a-** to the ordinary demonstrative instead of the **na-** as in Swati. Although Ziervogel (1954.:33) mentions only one position for interjective demonstratives (apparently position I), three positions were identified during this project:

	I	Sw.	II	Sw.	III	Sw.
Class 1	[alɔ]	nangu	[alɔjɔ]	nango	[alɔwa]	nanguya
Class 2	[alaβa]	naba	[alaβɔ]	nabo	[alaβaja]	nabaya
Class 3	[alɔ]	*nankhu *nawu	[alɔwɔ]	nankho nawo	[alɔwa]	nankhuya nawuya
Class 4	[alɛ]	*nayi *nankhi	[alɛjɔ]	nayo nankho	[alɛja]	nayiya nankhaya
Class 5	[alɛli]	nali	[alɛlɔ]	nalo	[alɛla]	naliya
Class 6	[alawa]	*nankha *nawa	[alawɔ]	nankho nawo	[alawa]	nankhaya nawaya
Class 7	[alɛʃi]	nasi	[alɛʃɔ]	nasɔ	[alɛʃja]	nasiya
Class 8	[alɛβʲi]	nati	[alɛβʲɔ]	nato	[alɛβʲa]	natiya
Class 9	[alɛ]	*nayi *nansi	[alɛjɔ]	nayo nanso	[alɛja]	nayiya nansiya
Class 10	[alet'i]	nati	[alet'ɔ]	nato	[alet'a]	natiya
Class 14	[alɛβʲi]	nabu	[alɛβʲɔ]	nabo	[alɛβʲa]	nabuya

*In Swati both forms are used without any apparent preference for the one or the other.

Apparently this form is used in the same way in both languages, yet the formation is obviously different. In Pai the demonstrative is used consistently after the **a-** while in Swati the part that follows on **na-** is closer to the absolute pronoun but varies a lot.

4.5 *CONCORDIAL PREFIXES*

Although the main purpose of this section is to compare the prefixes of Pai and Swati, other aspects will of necessity also be touched upon. The use of these prefixes will be illustrated with examples throughout. These sentences will not only serve to indicate the nature of the prefixes but at the same time the mood, tense or form in which they occur will be illustrated. In order to avoid duplication these moods or tenses will be described at the same time. Therefore the negative forms of such moods or tenses will also be included. Again it must be pointed out that this is not an in-depth study of the morphology and/or grammar of Pai but just a survey where mainly correspondences with Swati will be described. In a few instances only examples will be given because the correspondences are so obvious that comments would be redundant.

4.5.1 *Subject concord (indicative mood, short form, present tense)*

4.5.1.1 This concord may be considered to be the 'ordinary' subject concord that is normally used. The concord for the so-called 'imperfect' form (according to NS classifications) or the 'long form' (Nguni classifications), differs. When considering the correspondences and the differences, the Swati connection is quite obvious. Except for the first and second persons (where variations are common in most Bantu languages), and Classes 7 and 8, the correspondences

are remarkable. In Class 7 the class prefix is **fii-** with the concord following the Tsonga pattern: **ji-**. The Class 8 prefix and its concord are again peculiar (vide the section on noun classes and the demonstrative).

	Pai	Swati		Pai	Swati
1st p.s.	[k'e]/[ŋ]	[ŋi] ngi	1st p.pl.	[he]	si
2nd p.s.	[o]	u	2nd p.pl.	[le]	ni
Class 1	[o]	u	Class 2	[βa] [βε]	ba
1(a)	[o]	u	2(a)	[βa] [βε]	ba
3	[o]	u	4	[e]	i
5	[le]	li	6	[a]	a
7	[ji]	si	8	[β'i]	ti
9	[e]	i	10	[t'e]	ti
14	[β'i]	bu			
15	[xo]	ku			

4.5.1.2 The form [ŋ] of the 1st p.s. in the paradigm above, occurs when the subject concord is followed by [k'a]. This happens in the potential and negative forms. Note how the structure of the potential predicate of Pai is similar to that of Swati:

Potential: [o k'e βjelije xore ŋk'a k^hɔβa la]

U ki bjelile huri nka khoba la.

Ungitjelile kutsi ngingahlala la.

'He/She told me that I may sit here'

Negative: [ŋk'a k'a leme k'a mok^hwana]

Nka ka limi ka mukhwana.

Ngingalimi (nga)kusasa.⁷

'I will not plough tomorrow'

The reason for this change in the concord apparently is to avoid confusion when two similar sounding forms occur in sequence e.g. the potential **ka**: ***k'ak'a**. The Nguni form (Swati **ŋi**) is then used instead.

4.5.1.3 Ziervogel (1954:34) mentions two forms of the subject concord for the 2nd p.p. viz *li-/ni-*. This phenomenon was not observed during the research in 1983/84 (cf also the object concord, par. 4.5.4). The replacement of **n** with **l**, and *vice versa*, is not uncommon in the Nguni dialects (cf the use of **la** in Zimbabwean Ndebele instead of Zulu connective formative **na**). Although it may be accepted that, in this case, the free variation of **l** and **n** may be ascribed to phonetic similarity (i.e. place of articulation), rather than outside influence, the existence of this form in 1954 and its possible Nguni-Tsonga origins cannot be discounted.

4.5.1.4 In the case of Classes 2 and 2(a), the form **βε** is not a significant variation. Within the contextual phonemic boundaries the phonemes /a/ and /ε/ are not conflicting and are therefore free variants. The source of this may be found in the use of the class prefixes **aba-** and **abe-** (**ba-** and **be-** in Swati) in these classes in the Nguni languages, and the concords may well have been derived from these forms. The fact that this was not observed by Ziervogel (1954), may indicate a further development or change since 1954.

⁷ This example is ungrammatical in Swati but it is quoted in this way to show the correspondence to the Pai form.

[βa/βe t'a fiŋgila k'a fi kl'ela]

Ba/Be ta hhingila ka hhi klela?

Batawuhamba ngayiphi indlela?

With which road will they go?

4.5.1.5 In the negative Pai uses the concord **a-** as in both Tekela and Zunda (except that in the latter **ka** is used for Class 1):

[moɟisi a a sek'e t'ekxhomo]

Muɟisi a a seki tikxomo.

Melusi akasengi tinkhomo.

The herd boy does not milk the cows

The structure of both these sentences above displays a typical Nguni pattern with the verb ending in **-i**.

4.5.2 Subject Concord (long form, present tense)

4.5.2.1 This second set of subject concords could be exceptional within the Nguni-Sotho environment, except for the fact that it is a form that exists in Tsonga. This again points to the unique position Pai seems to occupy within the Northern-Sotho/Tsonga/Swati environment. The imperfect **a** of NS and the long form **ya** of Nguni *completely* assimilate to the corresponding subject concord to form one morpheme.

	Pai	Swati		Pai	Swati
1st p.s.	[k'a]	ngiya	1st p.pl.	[h'a]	ngiya
2nd p.s.	[wa]	uya	2nd p.pl	[la]	niya
Class 1	[wa]	uya	Class 2	[β'a]	baya
1(a)	[wa]	uya	2(a)	[β'a]	baya
3	[wa]	uya	4	[ja]	iya
5	[la]	liya	6	[a]	aya
7	[ja]	siya	8	[βja]	tiya
9	[ja]	iya	10	[t'a]	tiya
14	[βja]	buya	15	[xa]	kuya

4.5.2.2 Ziervogel (1954) described this phenomenon but did not comment on its peculiar characteristics neither did he say anything about its origin. This can only be ascribed to the fact that he was possibly not aware that this form is also used in Tsonga.

1st p.s. Long form:

[k'a βolaβola]

Ka bulabula.

Ngiyakhuluma.

*I speak'***Short form:**

[k'e βolaβola fiip'ai]

Ki bulabula hhiPai.

Ngikhuluma siPai (siMbayi)

*I speak Pai'***2nd p.s: Long form:**

[wene wa t'eβa]

Wene wa tiba.

Wena uyati.

*You know***Short form:**

[wene o teβa monna k'o]

Wene u tiba munna ku.

Wena wati umuntfu lo.

*You know this man***Class 5: Long form:**

[lets'ats'i la tʃʰuβa]

Litsatsi la tshuba.

Lilanga liyashisa.

*The sun is hot***Short form:**

[lets'ats'i le tʃʰuβa k'a filemo]

Litsatsi li tshuba ka hhilimu.

Lilanga lishisa ehlobo.

*The sun is hot in summer***Class 7: Long form:**

[hibamu ʃa βulaja]

Hhibhamu sha bulaja.

Sibhamu siyabulala.

*A gun kills***Short form:**

[hibamu ʃi βulaja βaʃʰo]

Hhibhamu shi bulaja baʃʰu.

Sibhamu sibulala bantfu.

A gun kills people

4.5.2.3 The present tense indicative verb (both long and short form) is negated by means of the negative morpheme **a** which precedes the subjectival concord. The positive ending **-a** changes to **-e** in the negative, while the subjectival concord of Classes 1 and 1(a) which is **-o-** in the positive changes to **-a**:

Positive: [mat'i a βila p'ot'one]

Emanti abila ebhodweni.

The water boils in the pot.

Negative: [mat'i a a βile p'ot'one]

Emanti awabili ebhodweni.

Positive: [mβja ja βoxola]

Inja iyakhonkhotsa.

The dog barks.

Negative: [mβja a e βoxole]

Inja ayikhonkhotsi.

4.5.3 *Subject Concord (participial)*

4.5.3.1 The subjectival concord of the participial verb resembles that of indicative verbs, except in the case of Classes 1 and 1(a) which take the concord **a** in the positive instead of **o**. The verbal ending which is **-a** in the positive changes to **-e** in the negative. The vowel **e-** which often precedes monosyllabic stems in the positive form of participial verbs in NS was not encountered in Pai.

The participial verb is negated by means of the morpheme **k'a** which follows the subjectival concord. This morpheme causes the subjectival concord **k'e** of the 1st.p.s. to change to **η**:

Pai Positive: [k'a βɔ t'ekx^hɔmo t'e ʃɛfiɛla, fi t'ɛ t'e sɛk'a]

Sw. Lapho tinkhomo tifika sitawutisenga.

If the cattle arrive, we will milk them.

Pai Negative: [k'a βɔ t'ekx^hɔmo t'e k'a ʃɛfiɛla, fi k'a k'a t'e sɛk'a]

Sw. Lapho tinkhomo tingafiki, asitawutisenga.

If the cattle do not arrive, we will not milk them.

4.5.3.2 This corresponds to Swati where this mood uses **a-** in these classes. In Zulu the concord **ε-** is used in the participial and **a-** in the subjunctive only. The syntactical structure is Nguni and the fact that these languages (Pai and Swati) use the same concord, can only be ascribed to similar influences that they have been subjected to.

4.5.4 Object Concord

4.5.4.1 The object concord has the following form:

	Pai	Swati		Pai	Swati
1st p.s.:	[k'e]	ngi	1st p.pl.:	[fie]	si
2nd p.s.:	[xo]	ku	2nd p.pl.:	[ni]/[le]	ni
Class 1:	[mo]	m(u)	Class 2:	[βa]	ba
1(a):	[mo]	m(u)	2(a):	[βa]	ba
3:	[o]	wu	4:	[e]	yi
5:	[le]	li	6:	[a]/[wa]	wa
7:	[fi]	si	8:	[βi]	ti
9:	[e]	yi	10:	[t'e]	ti
14:	[βi]	bu			
15:	[xo]	ku			

4.5.4.2 As in Swati, the object concord **k'e** of the first person singular does not cause plosivation in Pai. This indicates another move away from NS.

Pai	[βa t'a k'e βona]	[o t'a k'e dʉmelisa]
	Ba ta ki bona.	U ta ki dʉmelisa.
Sw.	Batawungibona.	Utawungibingelela.
	<i>They will see me</i>	<i>He will greet me</i>

4.5.4.3 The object concord of classes 1 and 1(a), **mo**, does not always become a syllabic nasal **m̩** (as in NS) when it precedes the bilabial fricative **β** but forms a nasal compound instead: **mb**. Whether the nasal is syllabic as in Swati is not certain:

[βa t'a mbolaja]

Ba ta mbulaja.

Batawumbulala.

They will kill him

4.5.4.4 However, when the object concord precedes the palatalised labial affricate **βʲ**, the nasal changes to a palatalised labial nasal **mʲ**:

[k'e t'a mʲela]

Ki ta mjela.

Ngitawumtshela.

I will tell him

4.5.4.5 The object concord was also often heard as **wa** instead of **a**. This is another indication of the presence of Swati and maybe Tsonga elements in Pai:

[mat'i a k'e wa ŋwe]

Mati a ki wa ngwi.

Emanti angiwanatsi.

'Water, I don't drink it'

4.5.5 *The Reflexive*

4.5.5.1 Pai uses **t'e** as a reflexive morpheme. Like the object concord of the 1st p.s., no plosivation is caused by this morpheme.

Pai [k'e t'e leβa k'a fiβok'ɔ]

Ki ti liba ka hhibuko.

Sw. Ngitibuka esibukweni.

I look at myself in a mirror

Pai [βalemi βa t'e xaseɭa maβeɭe]

Balimi ba ti hasela mabele.

Sw. Balimi batihlanyeɭeɭa/batitjaleɭa emabele.

The farmers sow sorghum for themselves

Again the correspondence with Swati is obvious.

4.6 ASPECTUAL PREFIXES

Prefixes that are not anaphoric will be dealt with in this section. Again the occurrence of these prefixes is dealt with only on a morphological level and only the correspondences with Swati will be pointed out.

4.6.1 *The Potential and Progressive*

The potential and progressive morphemes are [k'a] and [sa] respectively. Since the progressive has already been mentioned when the subject concord was described (cf par 4.5.1.2) only it will be treated here.

4.6.1.1 *Progressive:*

The progressive *sa* may appear in indicative verbs in either the present tense or in the stative form of the perfect tense. Both the present tense and the stative perfect verb is negated by the negative formative *a* used before the subjectival concord. These two negatives differ in that the present tense verb has the negative ending *-e*, while the stative perfect verb has the negative ending *-a*:

Present tense

Positive: [βɔt'atane βa sa fiana]

Sw. Batali basaphila.

My parents are still alive

Negative: [βɔt'at'ane a βa sa fianɛ]

- Sw. Batali abasaphili.
 My parents are no longer alive
- Positive: [βana βa sa lema]
- Sw. Emadvodza asalima.
 The men are still ploughing
- Negative: [βana a βa sa leme]
- Sw. Emadvodza awasalimi.
 The men are no longer ploughing

Stative perfect:

- Positive: [mokx^hek'ula o sa ekl'ele]
- Sw. Salukati sisalele.
 'The old woman is still asleep'
- Negative: [mokx^hek'ula a a sa ekl'ele]
- Sw. Salukati asisalali.
 The old woman is no longer asleep

The negative form of the stative is different in Swati. However, when the Zulu form is compared, the correspondence is closer because Zulu uses only the negative prefix without any change to the verb stem:

- Zulu: Isalukazi asisalele.

4.6.2 *The Future*

Verbs in the future tense are characterised by the prefix **t'a** which has **t'e** as a facultative variant. Ziervogel (1954:34) mentions only **t'e**. The following examples illustrate the use of the future tense morpheme in the positive and the negative. Two negative forms for future indicative verbs were noted. The first, which is also the one most commonly used, consists of the subjectival concord followed by the negative formative **ka' k'a** while the verb takes the ending **-e**. This is the only negative cited by Ziervogel (1954:71) for future indicative verbs. The second negative consists of the negative formative **a**, followed by (i) the subjectival concord and (ii) the negative formative **k'a** while the verb takes the ending **-e**.

Positive: [t'ekxhomo t'e t'e/t'a nona pf'ula e na]

Sw. Tinkhomo titawunona uma invula ina.

The cattle will grow fat if it rains

Negative 1: [t'ekxhomo t'e k'a k'a none pf'ula e k'a ne]

Negative 2: [t'ekxhomo a t'e k'a none pf'ula e k'a ne]

Sw. Tinkhomo atitawunona uma invula ingani.

The cattle will not grow fat if it does not rain

Although Swati does not have a corresponding negative morpheme for Pai **k'a**, the second negative structure shows more correspondences than the first.

Note: One of the oldest female informants more than once used a future tense morpheme **p'a** quite spontaneously. This usage was however rejected by the others:

[k'e p'a βolaβola]

Sw. Ngitawukhuluma.

I shall speak

4.7 VERBAL SUFFIXES

Only the most productive suffixes will be dealt with here, i.e. the causative, passive, reciprocal applied and the perfect. Cf. Ziervogel (1954:55-59) for a discussion of suffixes other than these. Note that the ordinary orthography of the Pai examples is not in bold.

4.7.1 *The causative.*

The form of this suffix is [-is-]:

<i>IPA</i>	<i>Pai</i>	<i>Sw.</i>	<i>Eng.</i>
[dʲa]	-dja	-dla	<i>eat</i>
[dʲisa]	-djisa	-dlisa	<i>give to eat</i>
[klʰaβa]	-klhaba	-hlaba	<i>stab</i>
[klʰaβisa]	-klhabisa	-hlabisa	
[sek'a]	-seka	-senga	<i>milk</i>
[sek'isa]	-sekisa	-sengisa	
[mela]	-mila	-mila	<i>grow</i>
[milisa]	-milisa	-milisa	

A small number of verbs with **xa** or **fia** as the final syllable change to **fa** but the structure still corresponds with that of Swati:

[toxa]	-tuha	-suka	<i>go away</i>
[tofa]	-tusha	-susa	<i>take away</i>
[pfufia]	-pfuhha	-vuka	<i>get up</i>
[pfufa]	-pfusha	-vusa	<i>wake up</i>

A few verbs with **-la** as the final syllable change to **-f'a**:

[t'ala]	-tala	-gcwala	<i>become full</i>
[t'atf'a]	-tatsha	-gcwalisa	<i>fill up</i>

This change seems to be exceptional and will be difficult to explain, cf. however:

[lwala]	-lwala	-chwala	<i>be ill</i>
[lwalisa]	-lwalisa	-chwalisa	<i>cause to be ill</i>
[xola]	-hula	-khula	<i>grow big</i>
[xolisa]	-hulisa	-khulisa	<i>cause to grow</i>

where no change occurs.

Verbs ending in **-aja**, discard the semi-vowel **j** when the causative is formed:

[βolaja]	-bulaja	-bulala	<i>kill</i>
[βolaisa]	-bulaisa	-bulalisa	
[βeja]	-beja	-beka	<i>put down</i>
[βeisa]	-beisa	-bekisa	

4.7.2 *The passive.*

When the verb stem is monosyllabic, the passive suffix **-iw-** is used as in Swati. However, in disyllabic stems Pai continues to use this form while in Swati the vowel disappears:

<i>IPA</i>	<i>Pai</i>	<i>Sw.</i>	<i>Eng.</i>
[xa]	-ha	-kha	<i>scoop up</i>
[xiwa]	-hiwa	-khiwa	
[ja]	-ya	-ya	<i>go</i>
[iwa]	-iwa	-yiwa	
[lwa]	-lwa	-lwa	<i>fight</i>
[lwiwa]	-lwiwa	-liwa	
[lut'a]	-hluta	-hlutsa	<i>sieve beer</i>
[lut'iwa]	-hlutiwa	-hlotjwa	

According to Ziervogel (1954:58) verbs of more than two syllables usually take '-wa'. It was found however that such verbs may either take -w- or -iw-, although the latter is preferred:

[ɾɛk'isa]	-rekisa	-tsengisa	<i>sell</i>
[ɾɛk'isiwa]	-rekisiwa	-tsengiswa	
[ɾɛk'iswa]	-rekiswa		

Rules of sound change viz palatalisation and velarisation do not apply in the formation of the passive in Pai. The agentive particle **k'e** in passive formation has a facultative variant **k'a** - a fact that was also not mentioned by Ziervogel (1954). Although the phonological format differs from Swati, the syntactical structure of the sentence corresponds.

Pai [k'e lomiwe k'e/k'a mbja mat'ɔɔ]

Sw. Ngilunywe yinja itolo.

I was bitten by a dog yesterday

4.7.3 *The reciprocal*

The reciprocal suffix is **-an-**:

<i>IPA</i>	<i>Pai</i>	<i>Sw.</i>	<i>Eng.</i>
[βɔna]	-bona	-bona	<i>see</i>
[βɔnana]	-bonana	-bonana	
[sit'a]	-sita	-sita	<i>help</i>
[sitana]	-sitana	-sitana	
[lat'ela]	-latšela	-landzela	<i>follow</i>
[lat'elana]	-latšelana	-landzelana	

4.7.4 *The Applied.*

The applied suffix is **ɛl-**. No sound changes are brought about by this suffix in Pai:

<i>IPA</i>	<i>Pai</i>	<i>Sw.</i>	<i>Eng.</i>
[kl ^h aβa]	-klaba	-hlaba	<i>stab</i>
[kl ^h aβɛla]	-klabela	-hlabela	
[ɬaxola]	-hlahula	-hlakula	<i>hoe</i>
[ɬaxolela]	-hlahulela	-hlakulela	

4.7.5 *The perfect.*

4.7.5.1 The perfect suffix is **-ije** in the positive. Perfect indicative verbs are generally negated by the negative particle **a se** followed by the verb in the indicative:

Positive: [k'e relefije βufwa mat'olol]

Sw. Ngipheke iphalishi itolo.

I cooked porridge yesterday

Negative: [a se k'a relefia ufwa mat'olol]

Sw. Angikapheki iphalishi itolo.

I did not cook porridge yesterday

<i>IPA</i>	<i>Pai</i>	<i>Sw.</i>	<i>Eng.</i>
[mela]	-mila	-mila	<i>grow</i>
[melije]	-milije	-milile	
[βudwa]	-budzwa	-vutfwa	<i>become ripe</i>
[βudwije]	-budzwije	-vutsiwe	
[pf'uhā]	-pfuhha	-vuka	<i>wake up</i>
[pf'uhije]	-pfuhhije	-vukile	

4.7.5.2 Other rules that apply in the formation of perfect verbs are the following:

- a) Verbs ending in **ela** (which includes all applied forms) and **ala** change to **ele** in the perfect:

<i>IPA</i>	<i>Pai</i>	<i>Sw.</i>	<i>Eng.</i>
[t'ala]	-tala	-gcwala	<i>become full</i>
[t'ele]	-tele	-gcwele	<i>is full</i>
[k'it'imela]	-kitšimela	-gijimela	<i>run for</i>
[k'it'imele]	-kitšimele	-gijimele	<i>ran for</i>
[t ^h wala]	-thwala	-tfwala	<i>carry</i>
[t ^h wele]	-thwele	-tfwele	<i>loaded</i>

b) Verbs ending in **-ana** (this includes all reciprocals) change to **-ene**:

[ʃuŋwana]	-shungwana	-fumana	<i>find</i>
[ʃuŋwene]	-shungwene	-fumene	
[βɔnana]	-bonana	-bonana	<i>see one another</i>
[βɔnene]	-bonene	-bonene	
[fiarana]	-hharana	-bambana	<i>hold one another</i>
[fiarene]	-hharene	-bambene	

cf. however:

[k'wana]	-kwana	-vana	<i>hear or understand one another</i>
[k'wane]	-kwane	-vane	

c) Verbs ending in **-ara** change to **-ere**:

[fiara] *hold*: [fiere]

cf. however:

[fura] *become satisfied*: [fure]

d) The perfect of passive verbs is formed by changing final **-iwa** to either **-iwε** or **-iwije**:

	[rek'isa] <i>sell</i>	[rek'isiwε] x [rek'isiwije]
Sw.	-tsengisa	-tsengiswe -tsengisiwe
	[relefa] <i>cook</i>	[relefiwε] x [relefiwije]
Sw.	-pheka	-phekwe -phekiwe
	[xasa] <i>sow</i>	[xasiwε] x [xasiwije]
Sw.	-tjala	-tjalwe -tjaliwe

It is possible that the forms above correspond to Swati in that the two forms are syntactically restricted. In Swati the usage of the perfect is the same as that of the long and short form of the present tense, ie the short form is not used at the end of a sentence. Unfortunately no examples of these forms in sentences appear in the research material to prove or disprove this assumption.

4.8 THE RELATIVE CONSTRUCTION

4.8.1 Introduction

This is the final aspect of the morphology of Pai that will be investigated and compared to Swati. The rest of the grammar and the associated grammatical constructions are described by Ziervogel (1954) and will not add significantly to the aims of this study. The relative is also included here because of the different opinions scholars of the Nguni languages have on how the relative concord is formed. Doke (1965:107) says,

The relative concord may be formed from the adjectival concord by eliding the nasal consonant and any vowel following the nasal. Hence, where there is no nasal in the adjectival concord, the relative concord is exactly the same as the adjectival.

This means that we will also have to look at the adjectival concord:

The qualificative formative, *-a-*, is prefixed to the full form of the noun prefix, vowel coalescence taking place;

(Doke, 1965:101)

Most other scholars followed this example, not saying anything about the origin or nature of the 'qualificative formative *-a-*'. Even Ziervogel (1976) in his Swati grammar does not say anything about the nature of this concord in Swati. Yet it is precisely the relative (and adjective) construction of Tekela that displays the greatest difference when compared to Zunda. In contrast to Doke's definition of the adjective and relative concords, Van Eeden describes the concords (or rather

the differences between the two) in the following way:

Die werklike verskil tussen hierdie twee kwalifikatiewe konkords lê waarskynlik daarin dat die relatiefkonkord oorspronklik net uit die demonstratief van die eerste trap bestaan het, en die adjektiefkonkord uit dieselfde demonstratief plus nog die werklike prefiks. ... As die adjektiefkonkord besien word vanuit sy huidige vorm en funksie, sou ook gesê kan word dat dit bestaan uit die relatiefkonkord plus die werklike prefiks.

(Van Eeden, 1956:166)

This would mean that the relative concord of eg Zulu consists of a pronominal element (I)a- plus the subject concord. The initial I of the demonstrative has been lost and that is why Doke refers to the -a- as the 'qualificative formative' with no reference to the demonstrative. In the Sotho languages it is accepted that the relative concord is derived from the demonstrative and in the comparison of Pai and Swati there can be no doubt as to the origin of this concord. The form of this construction can be clearly seen in Pai.

4.8.2 *Formation of the Relative Construction*

As will be evident from the description below, the focus is on the relative formed from a verb. It is irrelevant whether other stems are used since the main concern here is the relative concord (or the relative pronoun as it is called here) and not the stem.

In Pai this construction consists of :

- (i) a demonstrative which functions as a relative pronoun, followed by
- (ii) a relative verb comprising a subject concord and
- (iii) a verb stem with the relative ending **-xo**.

4.8.2.1 *The Relative Pronoun*

As with the demonstratives treated earlier (cf par 4.4.4), this particular demonstrative may be either of the Sotho or the Nguni type (the relative pronoun is printed in bold):

Sotho type: **Class 1:** [k'e mo^ho k'o k'e mo rataxo]

Nguni type: **Class 1:** [k'e mo^ho lɔ k'e mo rataxo]

Sw. Ngumuntfu **lengimtsandzako**.

It is a person I love

Sotho type: **Class 9:** [k'e mbja k'i e βoxolaxo]

Nguni type: **Class 9:** [k'e mbja lɛ e βoxolaxo]

Sw. Yinja **lenkhonkhotsako**.

It is a dog which barks

It was quite obvious from the informants that, with the exception of Classes 1 and 1(a), the demonstrative of the Nguni type is preferred in this construction.

It is also immediately clear when looking at the Swati counterpart that it is not so much an Nguni connection that can be observed (cf the introduction above), but rather a Swati connection.

4.8.2.2 *The Subject Concord*

When the Pai structures listed under A and B below are compared, it is obvious that the relative verb lacks a subjectival concord in A, while the subjectival concord is present in B:

Pai A: [βa relefia βuɟwa leβji nat'efiixo]

Sw. Bapheka liphalishi lelimnandzi / lelitsandzekako.

They cook porridge which is nice

Pai [t'emβja let'i fierexo fiok'o te fanefiele xo lut'iwa]

Sw. Tinja letibambe inkhukhu tifanele kushaywa.

The dogs which caught the fowl are supposed to be hit

Pai B: [k'e k^hesa moɲa k'o a t'eβaxo fipai]

Sw. Ngifuna indvodza leyati siMbayi/Ngifuna umuntfu lowati siMbayi.

I am looking for a man who knows hiPai

The vowel verb **at'i** in Swati in the last sentence above does not show the difference because a glide is used between the demonstrative element and the

vowel of the verb. This glide can be mistaken for a concord and for the sake of this argument another verb will be used in the same context:

Sw. Ngifuna umuntufo lokhuluma siMbayi.

Pai [a fie k'ot'e xo wela molapɔ lɔ ɔ telexo]

Sw. Asikwati kuwela umfula logcwele.

We are not able to cross a river which is full

Pai [mβja lɛ e lumijexo motf'itf'ana e lut'iwije]

Sw. Inja lelume intfombatana ishayiwe.

The dog which bit the girl was hit

4.8.2.3 *Comments on the Pai Structure*

A possible explanation for this situation in Pai (which, incidentally was not observed by Ziervogel) lies in the structure of the demonstrative itself. The demonstratives of the Nguni type can be divided into two categories according to their syllabic structure. Firstly, there are the demonstratives of the non-nasal classes that consist of two syllables. Note that the second syllable of these demonstratives is identical with the subjectival concord of that particular class:

Class 2:	Demonstrative:	la-βa	Subject concord:	βa-
Class 7:	Demonstrative:	le-βi	Subject concord:	βi-
Class 8:	Demonstrative:	le-βi	Subject concord:	βi-
Class 14:	Demonstrative:	le-βi	Subject concord:	βi-

The subject concord is absent only in relative verbs that are used with demonstratives from the non-nasal classes. Therefore it seems that the deletion of the subject concord is due to the resemblance between the second syllable of the demonstrative and the subject concord. For all practical purposes the concord seems to be redundant and is simply left out. This could explain why the second example in each one of the following pairs is judged by the informants as being less acceptable than the first (that is why the question mark precedes the second sentence):

Pai [k'e k^hesa βa^ho laβa t'eβaxo fiⁱpai]
 ?[k'e k^hesa βa^ho laβa βa t'eβaxo fiⁱpai]

Sw. Ngifuna bantfu **labati** siMbayi.
I am looking for people who know Hipai

Pai [βa pf'unije fiⁱlok'wane leⁱfi telexo]
 ?[βa pf'unije fiⁱlok'wane leⁱfi βi telexo]

Sw. Bavune ummbila **lomningi**.
They harvested maize which is abundant

The last Swati example above does not correspond to the Pai form because the noun is in a nasal class.

In the nasal classes, the subjectival concord is also similar to the vowel of the demonstrative but is repeated, probably by analogy with the disyllabic nature of the demonstrative in the non-nasal classes:

Class 1:	Demonstrative:	lɔ/k'o	Subject concord:	o
Class 3:	Demonstrative:	lɔ	Subject concord:	o
Class 4:	Demonstrative:	le	Subject concord	e
Class 6:	Demonstrative:	la	Subject concord	a

The subject concord should therefore always appear in the relative verb if the antecedent belongs to one of these classes:

Pai [βa k^hesa xo βɔna mona k'o o βolaβolaxo]

Sw. Bafuna kubona umuntfu lokhulumako.

They want to see the man who speaks

Pai [βa t'e ja met'ene le e axiwaxo]

Sw. Batakuya emitini leyakhiwako.

They will go to the villages which are built

Pai [mosadi o fiawa mat'i la a βilaxo]

Sw. Umfati ucela emanti labilako.

The woman asks water that is boiling

4.8.2.4 *Comments on the Swati Structure*

When the structure of the Pai relative concord is compared to the one in Swati (as is evident in the examples above), the main difference lies in the nasal and non-nasal classes. In the non-nasal classes the Pai structure that was preferred by the informants, is the same as in Swati, ie the demonstrative of the first position. The argument that the subject concord is omitted because it is identical to the final syllable of the demonstrative, seem to be valid. The reasoning behind this argument is the fact that the subject concord apparently appears consistently after the (full) demonstrative in the nasal classes in Pai. It is therefore logical that it should also be used in the non-nasal classes after the (full) demonstrative.

When the Swati examples are compared, the relative concord in the non-nasal classes is identical to the demonstrative pronoun (it therefore corresponds to the preferred form in Pai). However, in the nasal classes it is also only the demonstrative that is used, ie without a subject concord while in Pai the subject concord appears prominently throughout. The fact that it is absent in Swati in the nasal classes casts doubt over the true nature of the relative concord. The question can be asked as to whether it is really only the full demonstrative pronoun that is used or the demonstrative plus subject concord. The reason why the concord is not visible in Swati is ascribed to assimilation or vowel coalescence. This may also be the reason why there are different opinions regarding the relative concord in Zulu. In a study of this subject, Gauton (1990) agrees with the findings of the scholars she quotes (cf also the quotation of Van

Eeden (1956) above):

Volgens skrywers soos onder andere Van Eeden (1956), Ziervogel (1961), Jordan (1967 en Ungerer (1975) het die huidige relatiefskakel van Zulu uit 'n demonstratiewe basis la-plus die onderwerpskakel van die betrokke klas ontwikkel.

(Gauton, 1990:42)

There is therefore agreement that the subject concord is present in the relative concord. There is also agreement that the initial *l* of the concord originates from a demonstrative element, but it is not accepted that the concord consists solely of the demonstrative pronoun plus a subject concord.

The fact that Pai uses the subject concord may be ascribed to the influence of NS where vowel coalescence is not a common phenomenon. That is why the full 'Sotho-type' demonstrative plus the subject concord is used. The preference for the use of the 'Swati-Tsonga' type of demonstrative in this construction may therefore be indicative of either a movement away from NS or, on the other hand, may be a remnant of the original structure that has changed because of NS influence.

4.9 SUMMARY

Although only certain aspects of the morphology were covered in this chapter, the correspondences Pai has with Swati cannot just be regarded as borrowings. Apart from that, certain peculiarities of Pai justify the assumption that this is a language in its own right and not just a dialect. These aspects need to be further investigated, eg the origin of the **βji-** morpheme and the 'Sotho-type' demonstratives. An important deduction that can be made is that the structure of the relative construction in Pai may well be an indication of how the change from Zunda to Tekela to Sotho took place. It may also have been in the other direction: from Sotho to Tekela to Zunda. One may then investigate a development line that looks like this:

Sotho	→	Pai	→	Swati	→	Zunda or
Zunda	→	Swati	→	Pai	→	Sotho

with Tsonga somewhere inbetween.

CHAPTER 5

Conclusion

5.1 Introduction

5.1.1 In chapters two and three of this thesis the correspondences (and differences) between the speech sounds of both Swati and Pai have been described from different angles. All the correspondences and different attestations of the data emanating from the research material have been described and analysed. Preliminary conclusions regarding the Pai/Swati scenario have been reached. Thereafter (chapter four) a preliminary survey of the morphology and grammar of Pai has been done with accompanying comparisons with Swati.

In order to organise all the information and gain a different insight into the relationship between these two languages, a statistical analysis of the speech sounds seemed to be a viable option. The following tables and comments are therefore an attempt to represent a statistical overview of the Pai and Swati speech sounds and to add to the observations, conclusions and comments in chapters two and three. The morphological data has not been included because it cannot conveniently be organised in such a manner.

5.1.2 A variety of parameters can be used when undertaking such a statistical analysis. This analysis will only be based on the *manner of articulation* of the speech sounds of the two languages. As will have become obvious by now, the nature of the research material is such that it leaves other avenues for research wide open. The statistical comparison will consist of three parts:

- * First the different speech sounds of Pai in each category will be counted. These Pai sounds have their own attestations in Swati and these forms will also be counted. The various attestations do not necessarily correspond according to manner (*or* place) of articulation but are forms that occur in Swati in similar phonological environments, eg a Pai voiced plosive may have a voiceless fricative form in Swati.
- * Secondly the direct correspondences will be counted, ie from Pai to Swati and from Swati to Pai. This is the 'One-on-One' column in the tables containing the figures below. These sounds will be identical or very similar in both manner and place of articulation.
- * Thirdly, the Swati speech sounds will be counted as well as their Pai attestations. The same criteria that was used for the Pai sounds and the variant Swati forms, will again be applied.

Note that it is the *speech sounds* that are counted and not necessarily *phonemes*. One reason for this is that, except for the comparison with Ur-Bantu, the consonant *phonemes* of Pai have not been specifically identified in the foregoing

study. Other reasons will become evident in the discussion of the tables.

5.1.3 All in all, 48 speech sounds have been counted in Pai and cross-compared to 41 speech sounds in Swati. The figures in these tables cannot be taken as absolutely exact. The reasons for this are multi-fold, eg

- * Only examples that occur in the foregoing chapters were taken into consideration when these figures were calculated.
- * Other examples may be found where greater or lesser correspondences or differences occur. However, such examples will not necessarily change or influence the figures below dramatically since a basic core vocabulary was used.
- * The click sounds are a case in point. Not all the Swati click sounds are taken into account because only two appear in Pai and only those where correspondences occur, are recorded.
- * Furthermore, the wide variety of Ur-Bantu reflexes encountered in both languages and the apparent instability of many Pai phonemes, make these figures arbitrary.

Nevertheless, the figures will hopefully

- * give an indication of the enormous, and variety of, influences the Pai language has been subjected to;
- * indicate the instability of certain phonemes of a language that is in a state of flux;
- * prove that the affinities Pai has with Swati are not just 'borrowed';
- * provide evidence that a Proto-Nguni core may be at the basis of both languages in their pre-history.

It must be borne in mind that many of the observations that are made here are based on the data in chapters two and three and references will not necessarily be included. This section will include further remarks on observations made earlier. Certain interesting aspects gained from the statistics that may or may not have a bearing on the pertaining argument or the previous data will also be included.

5.1.4 The following tables are summaries of the attestations in both languages of :

- (a) *The voiced plosives*
- (b) *The voiced fricatives*
- (c) *The voiced affricates*
- (d) *The voiceless plosives*
- (e) *The voiceless fricatives*
- (f) *The voiceless affricates*
- (g) *The nasals*
- (h) *The approximants*
- (i) *The clicks*

This will be used to arrive at the figures in the second table in each case. The figures of the second table may seem contradictory, but the answer lies in the fact that the number of basic sounds in Pai and Swati are not the same. There is therefore not an equal number of corresponding sounds in both languages. The comparative data in the first table will serve as an example to illustrate and explain this apparent discrepancy.

5.1.5 The first table lists the voiced plosives of Pai and the Swati attestations on the left. On the right the voiced plosives of Swati and the Pai attestations are listed. The entries printed in bold are those that are considered to be similar, or in a 'One-on-One' relationship. That is where the figures 4 and 5 are derived from in the second table below. The arrow in the first table indicates that the form on the left '*may change to*', '*has the form*' or '*is sometimes the same as*', the

form on the right. The same pattern will be followed when the other categories are treated.

5.2 The Voiced Plosives of Pai and Swati

5.2.1

Voiced Plosives					
<i>Pai</i> → <i>Swati</i>			<i>Swati</i> → <i>Pai</i>		
1.	b	→	ɸ	1.	ɸ → b
		→	β		→ β
2.	d	→	ɖ	2.	β → b
3.	ɖ	→	v	3.	ɖ → d
		→	t' (VL) ⁸	4.	ḡ → g
4.	dʲ	→	ɟ	5.	ŋḡ/ŋ → ŋg
5.	g	→	ḡ		→ k' (VL)
6.	ŋg/ŋ	→	ŋḡ/ŋ	6.	ɟ → ɸ
					→ x (VL)
					→ j
					→ l
Total: 6		8		6	
				11	

⁸ Note that (VL) in the table above indicates *voiceless* attestations.

5.2.2 The next table is a summary of the one above, ie the figures quoted there have all been derived from the information in the table above. The arrow, in eg 6 → 8, indicates that 6 voiced plosives in Pai have 8 attestations in Swati (note that the attestations in Swati are *not* necessarily voiced plosives). The same applies to the column where the Swati and Pai attestations are listed. The two centre columns indicate the number of direct correspondences (One-on-One) between Pai and Swati on the left and Swati and Pai on the right,

5.2.3

		Voiced	Plosives		
<i>Pai → Swati</i>		<i>One- on- One</i> <i>Pai → Swati Swati → Pai</i>		<i>Swati → Pai</i>	
6	→ 8	4	5	6	→ 11

This can be interpreted as:

- * Six basic Pai voiced plosive sounds have *eight* attestations in Swati. Of these,
 - four* Pai forms correspond directly to Swati (which means that there are *four different* attestations (8 minus 4) in Swati)
- * Six basic Swati voiced plosive sounds in Swati have *eleven* attestations in Pai. Of these,
 - five* Swati forms correspond directly to Pai (which means that there are *six different* attestations (11 minus 5) in Pai).

5.2.4 A number of conclusions can be drawn from the above figures as well as from the figures below. The comments made here will in many cases also apply to the tables of the other sound categories.

Firstly, the figures in the 'One-on-One' column above may not seem significant, but a closer investigation reveals that many of these sounds seem to have a Zunda-Nguni origin, or at least a Proto-Nguni origin, cf **b**, **d**, **g** and even **ng**. In the latter case the ejective variation **k'** is not unexpected since it is the regular attestation in NS.

One of the categories in Van der Spuy's (1989:39) classification of PSB consonants is *Voiced stops*. When the bilabial plosive ***b** is described, Zulu is the only language amongst Northern Sotho, Venda, Tsonga and Zezuru where this bilabial is a plosive. In all four of the other languages the attestation is a fricative, viz **β**. Since **b** occurs in both Pai and Swati in a number of lexical items, the origin of this sound may be linked to a Proto-Nguni form.

Van der Spuy (1989:44) also postulates a PSB ***d**. He does this even though the mentioned four languages have either an **l** or **r** attestation. When this plosive occurs in the nasal compound, Van der Spuy (1989:47) says that:

The majority of attesting sounds are alveolar, only the Tsonga sound being retroflex. The majority consist of a sequence of nasal and voiced stop, and the series is reconstructed as such.

and he lists the series as

ZU	NS	VE	TS	ZE
Nd	t	Nd	Ndz'	Nd

(Van der Spuy, 1989,47)

In the series, the NS attestation is t', and from the foregoing chapters it is clear that this PSB voiced plosive represents the affricativised version **ndz** or **ndv** in Tekela (Swati). The retroflex in Tsonga may also have affinities with these affricates in Swati and the retroflex in Pai. More attention will be given to these affricates of Swati and their relationship to Pai later. Unfortunately the presence of breathy voicing in the Pai sounds could not be tested. However, the obvious correspondences between the Pai sounds and the breathy voiced Swati sounds in the same phonological environments cannot be ignored, eg the 'borrowed' click, where it is assumed that it can only be breathy voiced. Further research into the role of the phenomenon of breathy voicing may add more weight to the argument of a pre-historic link between Pai and Swati, especially when the Tsonga connection is investigated in more detail (Cf Louw & Marivate, 1992).

On the other hand, the view point when the research was carried out, as well as that of Ziervogel (1954) and Louwrens (1987), was that these sounds are 'borrowings' from Swati. The figures in the tables above and below show a core of corresponding forms, and the historical data in Chapter 1 also indicates a pre-historic link. Although this is not the main issue in this study, it may be interesting to look at this from a historical linguistics point of view, and try to establish the point in time when these two languages, having this core of corresponding forms, moved apart.

Secondly, the number of different Swati attestations (seven) indicates that other influences (languages) may have played a role in the evolution of Swati as a Tekela language. In the same vein, the number of different attestations in

Pai (twelve), indicates an even greater influence of neighbouring languages, or maybe a different line of development. However, one should not see these Pai attestations as absolutely representative of the Pai phoneme register. For example, in one Swati lexical item a certain phoneme may have one Pai attestation, but for another Swati item containing the same phoneme, Pai will have a different phoneme altogether. This again confirms the statement that recognition of phonemes, and in this case lexical items, depends entirely on speakers of the language (cf Goyvaerts, 1975:66).

This argument can be taken further when the feature *voicing* is taken into consideration. In the Pai list of voiced plosives, there is only one voiceless attestation in Swati and that is the ejective **t'**. This ejective is one of the counterparts of the retroflex **ɖ** of Pai. If one considers the fact that this voiced retroflex also occurs in Tsonga, and that its counterpart in NS is the same as the **t'** in Swati (cf Van der Spuy 1989:47 above), then the influence of other languages on these two is clearly evident. Pai displays Tsonga influence while Swati displays NS influence. This is the reverse of what one would expect.

In the Swati list of voiced plosives there are two voiceless attestations in Pai. Both these attestations occur in the environment of the partially voiced velar **ɣ** of Swati. The uncertain nature of this sound in Swati and Zulu has already been mentioned (cf par 3.2.1.3). Normally the Pai attestation would be the voiced **fi**, but the appearance of the voiceless **x** indicates that this sound may be interpreted differently by speakers of other languages and that is why these

variations occur. The occurrence of **j** in similar environments, eg **βeja** has also been mentioned (cf 3.2.1.3) although there is no plausible explanation - except for the voicing - for a glide to appear in this environment.

5.3 The Voiced Fricatives of Pai and Swati

5.3.1

Voiced Fricatives					
<i>Pai</i> → <i>Swati</i>			<i>Swati</i> → <i>Pai</i>		
1.	β	→	β	1.	v → v
2.	β ⁱ	→	tʃ ^h (VL) ⁹		→ t' (VL)
3.	v	→	v		→ d
4.	z	→	z		→ β
					→ pʃ ^r (VL)
5.	z _ɬ	→	ts' (VL)		→ k' (VL)
6.	fi	→	p ^h (VL)	2.	z → z
			→ s (VL)	3.	ʒ
			→ ʒ	4.	fi
				5.	ʒ → dʒ
					→ kl' (VL)
					→ t' (VL)
6 → 8 (4)			5 → 10 (5)		

⁹ Note that the (VL) in the table above indicates *voiceless* sounds.

5.3.2

		Voiced	Fricatives		
<i>Pai</i> → <i>Swati</i>		<i>One- on- One</i> <i>Pai</i> → <i>Swati</i> <i>Swati</i> → <i>Pai</i>		<i>Swati</i> → <i>Pai</i>	
6	→ 8	2	2	5	→ 10

This can be interpreted as:

- * *Six* basic Pai voiced fricatives have *eight* attestations in Swati. Of these, *two* Pai forms correspond directly with Swati (which means that there are *six different* attestations (8 minus 2) in Swati of which *four* are voiceless).
- * *Five* basic Swati voiced plosive sounds in Swati have *ten* attestations in Pai. Of these, *two* Swati forms correspond directly with Pai (which means that there are *eight different* attestations (10 minus 2) in Pai of which *five* are voiceless)

5.3.3 Although there are only *two* One-on-One attestations in both languages viz **v** and **z**, these attestations again reflect the same correspondences with Zunda-Nguni. In Pai there is also only one attestation of the Swati **z** sound and the same is true of the Pai sound where Swati also has one, similar attestation. This may add weight to the argument that the **z** is a borrowed sound in Pai.

However, the existence of this sound in both languages poses a problem as to its origin. It is generally accepted that in Swati this sound occurs only in words borrowed from Zulu. If that is indeed the case, the question whether Pai borrowed the **z** from Swati or from Zulu, or whether it is a remnant of an older proto-form, still remains.

The **v** is more common in Swati and is accepted as a Swati sound. However, the Pai attestations paint a different picture. There are no less than *six* different attestations, and three of them are voiceless. In Van der Spuy's (1989:55) series for his PSB *bF, Zulu has **v**, NS has **β**, Venda **v** and Tsonga **pf**. While all these attestations have a labial element, two Pai attestations are alveolar: **ɖ t'** and one velar, **k'**. The NS attestation **β**, as well as the Tsonga **pf** appears in Pai, but how the ejective **t'** and **k'** as well as the retroflex **ɖ** fit into the picture, will be difficult to explain. The only conclusion is that Pai has not only been exposed to Swati, NS and Tsonga, but may have borrowed items from other languages as well, or may have developed, and eventually accepted, specific sound patterns for specific lexical items.

Another interesting aspect is the number of voiceless attestations in both languages, especially the ejective **t'** in Pai. This ejective is generally accepted as the trademark of the Tekela languages, yet here it appears in Pai in the position of both the voiced **v** and **β** of Swati. In the Pai-Swati column on the left, only the attestation **ts'** of the voiced Pai retroflex **z** is evidence of the Tekela nature of the Swati sound system.

The ever-present voiced glottal fricative *fi* of Pai has two voiceless attestations in Swati, but surprisingly enough, the voiced glottal fricative of Swati has no counterpart in Pai.

5.4 Voiced Affricates of Pai and Swati

5.4.1

Voiced Affricates					
<i>Pai</i> → <i>Swati</i>		<i>Swati</i> → <i>Pai</i>			
1.	<i>dʒ</i>	→	<i>ɖʒ</i>	1.	<i>ɖʒ</i> → <i>dʒ</i>
		→	<i>ʒ</i>		→ <i>t'(VL)</i>
				2.	<i>ɖy</i> → <i>d</i>
					→ <i>ɲd</i>
				3.	<i>dʒ</i> → <i>t'(VL)</i>

1 → 2 3 → 4

5.4.2

Voiced Affricates			
<i>Pai</i> → <i>Swati</i>	<i>One- on- One</i>		<i>Swati</i> → <i>Pai</i>
	<i>Pai</i> → <i>Swati</i>	<i>Swati</i> → <i>Pai</i>	
1 → 2	1	1	3 → 4

This can be interpreted as:

- * *One* basic Pai voiced fricative has *two* attestations in Swati. Of these, *one* Pai form corresponds directly to Swati (which means that there is *one different* attestation (2 minus 1) in Swati).

- * *Three* basic Swati voiced fricative sounds in Swati have *four* attestations in Pai. Of these, *one* Swati form corresponds directly to Pai (which means that there are *three different* attestations (4 minus 1) in Pai, two of which are voiceless).

5.4.3 The two affricates **dz** and **dv** in Swati and their Pai counterparts leave no doubt about the close affinity between the typical Tekela sounds and the Pai retroflexes. Although one attestation is voiceless, the correspondence between the Swati affricates and the Pai retroflexes, is more than incidental.

5.5 The Voiceless Plosives of Pai and Swati

5.5.1

Voiceless Plosives							
<i>Pai</i> → <i>Swati</i>			<i>Swati</i> → <i>Pai</i>				
1.	p'	→	b*	1.	p'	→	
		→		2.	p ^h	→	p ^h
2.	p ^h	→	p ^h			→	p'
3.	t'	→	t'			→	h
		→	kl'	3.	t'	→	t'
		→	l̥			→	ɖ
4.	t ^h	→	t ^h			→	tʃ'
5.	t'	→	dʒ			→	β ^j
6.	t ^h	→	ts ^h	4.	t ^h	→	
		→	t ^h	5.	k'	→	k'
7.	k'	→	k ^h	6.	k ^h	→	k ^h
8.	k ^h	→	k ^h			→	k'
9.	kl'	→	ɟ*			→	x
10.	kl ^h	→	ɬ			→	kl ^h
		→	k ^h			→	ɬ
	10	→	15		6	→	13

Note: the asterisk * above indicates that these sounds were only encountered in nasal compounds.

5.5.2

		Voiceless	Plosives		
<i>Pai</i> → <i>Swati</i>		<i>One- on- One</i> <i>Pai</i> → <i>Swati</i> <i>Swati</i> → <i>Pai</i>		<i>Swati</i> → <i>Pai</i>	
10	→	15	3	4	6 → 13

This can be interpreted as:

- * *Ten* basic Pai voiceless plosives have *fifteen* attestations in Swati. Of these,
 - three* Pai forms correspond directly with Swati (which means that there are *twelve different* attestations (15 minus 3) in Swati of which *four* are voiced).

- * *Six* basic Swati voiceless plosive sounds in Swati have *thirteen* attestations in Pai. Of these,
 - four* Swati form corresponds directly to Pai (which means that there are *nine different* attestations (13 minus 4) in Pai of which *three* are voiced).

This is one of the few cases where the Swati attestations of Pai sounds are greater in number than the Pai attestations of Swati sounds. The reason is that two click sounds feature in the Swati list as well as the affricate counterparts of some of the Pai retroflexes, specially where the aspirated alveolar retroflex

corresponds in a number of instances with the two Swati affricates **ts^h** and **tf^h**. This again establishes a definite link between the Pai sounds **t^h** **t'** **t^h** and their Swati counterparts, as well as the Swati **t'** that has a retroflex voiced counterpart in Pai: **d**.

Interesting gaps also occur when these plosive sounds of the two languages are compared. Eg the ejective **p'** in Pai has no corresponding form in Swati in the same phonological environment. Only the voiced nasal compound **mb** and the dental click appears in Swati in similar lexical items. Similarly the ejective **p'** in Swati has no corresponding sound in Pai. Although both these phonemes exist in both languages, they seem to appear only in contrasting environments. Cf the **p^h** of Swati that has both an aspirated and an ejective attestation in Pai. This Pai ejective **p'** only appears in the environment of Swati **p^h**, but never in the same environment as Swati **p'**.

The same applies to the aspirated alveolar plosive **t^h**. In Swati this sound only occurs in words that are presumably of Zulu origin and only occurs in a few lexical items. Yet **t^h** does not seem to have a corresponding form in similar environments in Pai. Normally the Swati attestations would be **ts^h** or **tf^h** and that would account for the Swati attestation **tf^h** of Pai **t^h** in the column above.

5.6 *The Voiceless Fricatives of Pai and Swati*

5.6.1

Voiceless Fricatives					
<i>Pai</i>	→	<i>Swati</i>	<i>Swati</i>	→	<i>Pai</i>
1. f	→	f	1. f	→	f
2. s	→	s		→	ʃ
3. sw	→	ʃ		→	ʃw
4. t̥	→	t̥		→	fi
5. ʃ	→	s	2. s	→	s
6. ʃw	→	f		→	ʃ
7. x	→	k ^h		→	ts ^h
	→	k̤		→	fi
			3. ʃ	→	sw
				→	s
			4. x/h	→	
			5. t̥	→	t̥
				→	kl'
				→	kl ^h
7	→	8	5	→	13

5.6.2

Voiceless Fricatives			
<i>Pai</i> → <i>Swati</i>	One- on- One <i>Pai</i> → <i>Swati</i> <i>Swati</i> → <i>Pai</i>		<i>Swati</i> → <i>Pai</i>
7 → 8	3	3	5 → 13

This can be interpreted as:

- * Seven basic Pai voiceless fricatives have *eight* attestations in Swati. Of these,
 - three* Pai forms correspond directly to Swati (which means that there are *five different* attestations (8 minus 3) in Swati).

- * Five basic Swati voiceless fricatives sounds have *thirteen* attestations in Pai. Of these,
 - three* Swati forms correspond directly to Pai (which means that there are *ten different* attestations (13 minus 3) in Pai).

5.6.3 In the one-on-one *Pai* → *Swati* column the three fricatives of both languages, viz dentilabial, alveolar and alveolateral, correspond directly. No other variations occur in Swati. This again suggests that there is a common basic core of correspondences. When the *Swati* → *Pai* column is considered, it is obvious that *Pai* is a different language altogether, with unexpected attestations in certain environments, eg a Swati dentilabial and alveolar become a postalveolar and even a voiced glottal fricative in *Pai*.

Again the phenomenon of similar sounds in both languages occurring in different environments can be observed: the velar fricative *x* of Pai has two stop (plosive) counterparts in Swati while the Swati *x* has no counterpart in Pai. The change from a Swati alveolateral fricative to stops (affricates) in Pai is to be expected because of the influence of NS.

5.7 The Voiceless Affricates of Pai and Swati

5.7.1

Voiceless Affricates					
<i>Pai</i> → <i>Swati</i>			<i>Swati</i> → <i>Pai</i>		
1.	pf'	→ f	1.	ts'	→ r
2.	pʃ ^h	→ ʃ	2.&3.	ts ^h /tʃ ^h	→ tʃ'
		→ s			→ tʃ ^h
3.	ts'	→ t'* ¹⁰			→ t ^h
		→			→ t ^h
4.	ts ^h	→ s			→ dʷ
5.	tʃ'	→ t'			→ z
6.	tʃ ^h	→ tʃ''			→ r
		→ ts ^h	4.	tʃ'	→ tʃ ^h
7.	kx ^h	→ k ^h *			→ β ^j
			5.	kʃ'	→
7		→	5		→
		10			10

¹⁰ These sounds were only encountered in nasal compounds.

5.7.2

		Voiceless	Affricates		
<i>Pai</i> → <i>Swati</i>		<i>One- on- One</i> <i>Pai</i> → <i>Swati</i> <i>Swati</i> → <i>Pai</i>		<i>Swati</i> → <i>Pai</i>	
7	→ 10	1 ■	1 ■	5	→ 10

- The two sounds that correspond in both Swati and Pai are not identical. However, the absence of aspiration in the Swati attestations does not seem significant and they are therefore considered to be corresponding forms.

The figures in the above table can be interpreted as:

- * *Seven* basic Pai voiceless affricates have *ten* attestations in Swati. Of these,
 - one* Pai form corresponds to Swati (which means that there are *nine different* attestations (10 minus 1) in Swati).
- * *Five* basic Swati voiceless affricate sounds in Swati have *ten* attestations in Pai. Of these,
 - one* Swati form corresponds to Pai (which means that there are *nine different* attestations (10 minus 1) in Pai)

5.7.3 In the classification of Swati speech sounds by Msimang (1989:102) there are *seven* voiceless affricates against the *five* above. The reason for this is that Msimang also distinguishes a "radical" form of the aspirated forms listed under 2 & 3 above: **ts** **tʰ**. One can therefore expect that, if these radical forms exist

alongside the aspirated and ejective forms, there will be a wider possible variety of attestations in Pai.

However, the remarkable fact about these figures is the variety of non-corresponding forms when the voiceless affricates of *both* languages are compared. On the one hand this may indicate different origins and therefore no relationship. On the other hand the development of the affricativised forms in the Tekela languages has reached a point where these forms are firmly established and are therefore more consistent, while the many divergent forms in Pai may indicate a similar process of development that is not yet complete or that has been disturbed by outside influences. The similarities between the affricative forms of Swati and the retroflex forms of Pai may therefore be an indication of a common origin but different lines of development.

5.7.4 When the voicing of these non-corresponding forms is investigated, the following facts emerge:

- a) Pai has *seven voiceless* affricates with *ten voiceless* attestations in Swati. As far as voicing is concerned, there is therefore no deviation in Swati. This indicates the existence of a basic core of speech sounds that are common in both languages.
- b) Swati has *five voiceless* affricates with *five voiceless* attestations and *five voiced* attestations in Pai. The presence of voicing in the Pai attestations can only be ascribed to other influences (Tsonga

may be a strong possibility).

5.7.5 When the manner of articulation of the non-corresponding forms is considered, the following facts emerge:

- a) For the seven affricates of Pai, the following attestations appear in Swati:
3 affricates 4 continuants (fricatives) 2 plosives 1 click.
- b) For the five affricates of Swati, the following attestations appear in Pai:
3 affricates 4 continuants 3 plosives.

The only conclusion that can be drawn from this is that the line between affricates and fricatives in the relationship between these two languages is not clearly defined and that a great deal of fluctuation takes place. The reason for this may be the influence of NS on the one hand and the process of affricatisation in the Tekela languages on the other. Apparently both these have left a significant mark on the sound system of Pai.

5.8.2

		Voiced		Nasals		
<i>Pai</i> → <i>Swati</i>		<i>One- on- One</i>		<i>Swati</i> → <i>Pai</i>		
		<i>Pai</i> → <i>Swati</i>		<i>Swati</i> → <i>Pai</i>		
6	→	8	3	5	→	10

This can be interpreted as:

- * *Six* basic Pai nasal sounds have *eight* attestations in Swati. Of these, *three* Pai forms correspond directly to Swati (which means that there are *five different* attestations (8 minus 3) in Swati).
- * *Five* basic Swati nasal sounds in Swati have *ten* attestations in Pai. Of these, *five* Swati forms correspond directly to Pai (which means that there are *five different* attestations (10 minus 5) in Pai).

5.8.3 As was clear in chapters 2 and 3, Pai displays a great deal of instability where the nasals are concerned with especially the alveolar, palatal and velar nasals apparently occurring at random in similar phonological environments. When the syllabic nasal in both languages is disregarded, Swati consistently displays four nasals, ie bilabial, alveolar, palatal and velar in both the *Pai* → *Swati* and *Swati* → *Pai* columns. Pai also has these four nasals but they do not always occur in the same environments as in Swati.

5.9 The Approximants of Pai and Swati

5.9.1

Voiced Approximants					
<i>Pai</i> → <i>Swati</i>			<i>Swati</i> → <i>Pai</i>		
1.	w	→	w	1.	w → w
2.	j	→	j	2.	j → j
		→	l	3.	l → l
		→	ɰ		→ j
3.	l	→	l		
4.	r	→	ts'		
4		→	6	3	→ 4

5.9.2

Voiced Approximants			
<i>Pai</i> → <i>Swati</i>	<i>One- on- One</i>		<i>Swati</i> → <i>Pai</i>
	<i>Pai</i> → <i>Swati</i>	<i>Swati</i> → <i>Pai</i>	
4 → 6	3	3	3 → 4

This can be interpreted as:

- * *Four* basic Pai approximants have *six* attestations in Swati. Of these, *three* Pai forms correspond directly with Swati (which means that there are *three different* attestations (6 minus 3) in Swati).
- * *Three* basic Swati approximants have *four* attestations in Pai. Of these, *three* Swati forms correspond directly with Pai (which means that there is *one different* attestation (4 minus 3) in Pai).

5.9.3 The three different attestations in Swati are due to the unexpected occurrence of an *l* or a *j* in the position of the partially voiced *k* of Swati in a few lexical items. Normally this velar of Swati is replaced by the voiced *f* of Pai.

5.10 The Clicks of Pai and Swati

5.10.1

Click Sounds					
<i>Pai</i> → <i>Swati</i>			<i>Swati</i> → <i>Pai</i>		
1.		→		1.	
2.	ǀ	→	ǀ		p'
					k'
				2.	ǀǀ
					t'
				3.	ǀǀǀ
	2	→	2	3	→
					5

5.10.2

Click Sounds			
<i>Pai</i> → <i>Swati</i>	<i>One- on- One</i>		<i>Swati</i> → <i>Pai</i>
	<i>Pai</i> → <i>Swati</i>	<i>Swati</i> → <i>Pai</i>	
2 → 2	2	1	3 → 5

This can be interpreted as:

- * *Two* Pai clicks have *two* attestations in Swati. Of these, *two* Pai forms correspond directly with Swati (which means that there is a *one-on-one* relationship between Pai and Swati).

- * *Three* Swati clicks have *five* attestations in Pai. Of these, only *one* Swati form corresponds directly with Pai (which means that there are *four different* attestations (5 minus 1) in Pai).

5.10.3 The one-on-one relationship between Pai and Swati may again be seen as proof that the two languages share a core of lexical items that are of Nguni origin. The five different attestations that also occur in Pai are probably due to speaker-hearer misinterpretation when lexical items that may be of Swati origin are used by Pai speakers.

5.11 *Summary*

5.11.1 At the onset of this study several aims were outlined, the two primary ones being to describe the speech sounds of the Pai language as they have been observed in the research material gathered in 1983 and 1984, and to compare these sounds with the speech sounds of neighbouring Swati. This comparison was done with the purpose of establishing a possible link between the two languages. During the process of analysing and classification of the data it became clear that this link is indeed closer than what Van Warmelo (1935) and Ziervogel (1954) led us to believe.

The evidence that has come to the fore in the section on the history of the Pai provided a solid foundation for the investigation to proceed. In chapters two and three the growing numbers of corresponding lexical items as well as corresponding speech sounds added substance to an idea that seemed far-fetched at first. The aim with the morphological survey was to reinforce the findings of chapters two and three by showing that certain grammatical structures in Pai, besides the speech sounds, also show strong ties with Swati. In the end, the initial assumption that the relationship between Pai and Swati goes beyond loan-words and borrowings has been found to be correct. This finding has proven to be one of the most rewarding aspects of this study.

However, this does not mean that the Sotho connection can be completely disregarded. Only a one-on-one comparison of both NS and Swati with Pai will provide some kind of answer and establish whether Pai is indeed part of the

Eastern Sotho. Then there is also the Tsonga connection that has to be taken into account before a true picture of the nature and origin of this language can be presented. The results of an investigation along the same lines as the present one will probably suggest that the classification of Pai as part of the Eastern Sotho by Van Warmelo (1935), Ziervogel (1954) and Van Wyk (1969) be reconsidered.

The linguistic data in this thesis also gives an indication of the enormous influences the Pai language has been subjected to, and their variety. Although only the Swati angle was investigated, it is clear that this language has absorbed characteristics of many other languages. In spite of all these onslaughts, it has managed to retain its uniqueness in a linguistic environment that was, and still is, in a state of turmoil. It is therefore a pity that this language seems to be on the brink of extinction. The origin of the variety of lexical terms that are seemingly not related to other Bantu languages in the area should therefore be traced. This may shed light on the history of a part of this country and its peoples that is still veiled in obscurity and often based on conjecture.

The data also indicates the instability of certain speech sounds of a language that is in a state of flux. This is not surprising considering the influences this language has been subjected to through time. More important, a closer investigation may also reveal the nature of some of the mechanisms a language employs to incorporate these foreign elements and make it part of a structure that is intelligible to speakers of the language. The wide variety of Pai attestations in similar environments for speech sounds in Swati is proof of that (cf the tables above).

The other interesting aspect is that evidence came to light indicating that a Proto-Nguni core may be at the basis of both languages at some stage in their pre-history. The Pai-Nguni connection became a distinct possibility when the historical evidence was examined. This was re-enforced when typical Zunda-Nguni lexical items and sound sequences (that appear in a changed form in Swati) were encountered in Pai. The situation of the vowels of Pai as they have been described in chapter two may therefore also be reviewed. The Tsonga connection will no doubt also play a role in this because the histories of the Nguni and Tsonga people go back a very long time. The unique character of Pai shows that the histories of Zulu, and maybe even earlier, Xhosa and Ndebele, Tsonga and Tekela (Swati), and possibly later Sotho, are inevitably intertwined with that of Pai. The question as to the nature of the Nguni-Sotho connection remains unanswered. The relationships between the languages mentioned above, as well as the evidence that came to light in this thesis, invite further investigative work which would possibly generate more conclusive evidence of the evolutionary patterns of the relationship between Nguni and Sotho.

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