

**STANDARDISATION: TOWARDS LINGUISTICALLY SOUND SPELLING  
RULES FOR NORTHERN SOTHO TRANSLITERATIONS**

by

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## DECLARATION

I, Ditebogo Morapedi Collen Mabulana declare that **STANDARDISATION: TOWARDS LINGUISTICALLY SOUND SPELLING RULES FOR NORTHERN SOTHO TRANSLITERATIONS** is my own work and that all the sources that I have quoted or used have been acknowledged and indicated by means of complete references.

Signature: \_\_\_\_\_

Mabulana Ditebogo Morapedi Collen

Date: 19 May 2021

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## **ABSTRACT**

One of the many aspects of language standardisation is the standardisation of the spelling of words by selecting a standard form from amongst different orthographical variations of a particular word. The aim of this study was to examine transliterations in Northern Sotho, to see if the orthography rules have been consistently applied. This was done through identification of foreign consonant clusters and how they are presented in Northern Sotho transliterations that occur in *Northern Sotho Terminology and Orthography No. 4 of 1988*. Theories of loanword adaptations and correspondence guided this investigation. The data collected was analysed through the document analysis method. The research concludes that Northern Sotho spelling rules are inconsistently applied when foreign words are adapted, and this was found to be the result of unclearly formulated rules.

### **Key Terms:**

Transliteration, Loanword adaptation, Orthography, Standardisation, Northern Sotho, Linguistic borrowing.

## KAKARETŠO

Le lengwe la mahlakore a tekanetšo ya polelo ke tekanetšo ya mopeleto wa mantšu ka go kgetha sebopego se se lekaneditšwego gare ga mongwalo ye mengwe ya lentšu leo. Maikemišetšo a nyakišišo ye ke go tsinkela maadingwa a Sesotho sa Leboa go bona ge eba melao ya mongwalo e latela tirišo ye e sa fetogegofetogego. Se se dirilwe ka go laetša ditatelano tša ditumammogo mantšung a maleme a šele le gore di tšweletšwa bjang mo maadingweng a Sesotho sa Leboa ao a tšwelelago ka go *Sesotho sa Leboa Mareo le Mongwalo No. 4 ya 1988*. Nyakišišo ye e hlahlilwe ke teori ya kamogelego ya maadingwa le teori ya tshwano. Tshedimošo ye e kgobokeditšwego e sekasekilwe ka mokgwanyakišišo wa tshekatsheko ya ditokumente. Nyakišišo ye e hweditše gore melao ya mopeleto ya Sesotho sa Leboa e dirišwa ka go fetogafetoga ge maadingwa a amogelwa, gomme se ke ditlamorago tša melao ye e sego ya hlamega gabotse.

### **Mareo a motheo**

Kadimo, Leadingwa, Kamogelego ya maadingwa, Mongwalo, Sesotho sa Leboa,  
Tekanetšo

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## CHAPTER 1

### INTRODUCTION AND BACKGROUND TO THE STUDY

#### 1.1 LANGUAGES OF AFRICA

The languages of Africa are too many and too dispersed for researchers to be able to establish, how they relate to one another since it is believed that they all arose from a common ancestor language. Taljard (n.d) states that the African continent is estimated to have approximately 2035 languages. However, she points out that this number is not static since some languages are still being “discovered” while others are becoming extinct. These languages of Africa are categorised into four large continental phyla: Afro-Asiatic, Nilo-Saharan, Niger-Congo A and B, and the Khoisan. The Niger-Congo phylum, which is divided into A and B, is by far the largest phylum, having the largest number of languages than all other phyla combined. The estimated number of languages stated above are categorised into the identified phyla based on the linguistic features they have in common and geographical closeness (Taljard, n.d.).

The Niger-Congo phylum, subdivision B in particular, is the only phylum which contains members of the Bantu language family (Taljard, n.d.). This is a large family of languages spoken by indigenous people throughout the sub-Saharan Africa. It is a family to which all indigenous South African languages (including Northern Sotho) belong. The term “Bantu” derives from a definite noun from the languages in this language family and it denotes people. This term was introduced in 1857 by a German philologist, Dr. Bleek, long before the apartheid system existed in South Africa. However, the term was later used derogatively against black people during the apartheid period in South Africa. Hence it is seen today as the wrong term to be used to address this language family. Now some other terms have been insinuated to replace the term “Bantu” but they have not yet come to a conclusion as to which term amongst the suggested ones is a suitable replacement (Poulos and Louwrens, 1994).



It is believed that all languages within the Bantu language family arose from a Proto-language (the original language of this family). Hence, languages in this family have some linguistic features in common.

## **1.2 THE SOUTH AFRICAN LANGUAGE SITUATION**

Within the Bantu language family, there are different language groups. Of the official African languages of the Republic of South Africa Sesotho sa Leboa, Sesotho sa Borwa and Setswana form part of the Sotho group. IsiZulu, isiNdebele and isiXhosa are in the Nguni group, the whereas the remaining two African languages, Xitsonga and Tshivenda, are perceived as languages which are distinct from all languages in the two groups mentioned above. However, Tshivenda has some similarities with Sesotho sa Leboa.

The Interim Constitution of the Republic of the South Africa, 1993 (Act No. 200 of 1993) refers to the Northern Sotho language as Sesotho sa Leboa. When the final document, the Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996) was issued in all eleven official languages of the country, three of the languages did not retain the name Northern Sotho, but instead referred to the language as Sepedi (English and Afrikaans) and isiPedi (isiZulu).

The situation around the official languages of the Republic of South Africa was gazetted in Government Gazette 22223 of 20 April 2001 (Board Notice 76 of 2001 in terms of Section (11) of Act 51 of 1995). In this Government Gazette there are explanations on the use of prefixes in accordance with the structures of different languages. For example, the prefix *isi-* cannot be used in a text written in a Sotho language as it is foreign and will violate the morphology of the language. In a similar way the prefix *se-* cannot be imposed on texts of Nguni languages, and a language like English does not have the noun prefix system in its structure. The Gazette goes on to clear the confusion caused by Act 108 of 1996 regarding the name Sepedi. It states “The correct way in which to refer to the Sotho

language spoken in the Northern province is seSotho[sic<sup>1</sup>] sa Leboa/Northern Sotho. Sepedi denotes one of the varieties of that language and would be incorrect” (p 65).

### 1.3 NORTHERN SOTHO

Northern Sotho is a collective term which includes various dialects based in the Limpopo Province and some parts of Mpumalanga. It is the inclusive term which encompasses dialects such as Sekone, Seroka, Selobedu, Sepedi, Sehananwa, Sepulana, SePhalaborwa and Setlokwa (Taljard, n.d.). Erroneous use of the term Sepedi to refer to the language is attributed to the Constitution of the Republic of South Africa, 1996 (Act 108 of 1996), particularly the English version as it is the most popularly used and quoted.

The first written texts of Northern Sotho date back to 1862 (Taljard, n.d). Since then the orthography of Northern Sotho has been revised numerous times, the last revision being done in 2008. Orthographical revision, which includes the revision of spelling rules, forms but a small part of the process of language standardisation, which is aimed at reducing sociolinguistic complexity within a linguistic system, while at the same time increasing its functionality across communicative domains.

On the one hand, it could be stated that the process of language standardisation has made significant progress in Northern Sotho, but on the other hand, it needs to be understood that standardisation is an ongoing process, even for languages with a long written tradition. The orthography of Northern Sotho can be said to be standardised, since an official orthography exists and is generally followed by language users. Language standardisation, which includes standardisation of spelling and orthography, is usually carried out by an official language body which is sanctioned to make decisions and to distribute them to all interested parties.

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<sup>1</sup> Orthographical error: *Sesotho* in *Sesotho sa Leboa* begins with a capital letter and does not have a capital letter in the middle of the word

The use of Sepedi and Sesotho sa Leboa interchangeably, therefore, creates a lot of confusion and disputes amongst the community of Northern Sotho since the two terms are not the same and because Sepedi is an exclusive term which refers only to the language variety of the Bapedi people.

For the 11 official South African languages, standardisation of spelling, terminology and orthography is the task of the National Language Bodies, which are substructures within the Pan South African Language Board (PanSALB). The decisions taken by these language bodies are published as an official document on orthography and spelling for a particular language and distributed amongst all role players. The latest version of the Northern Sotho orthography was published in 2008, entitled Rules for the Orthography and Spelling of Northern Sotho. The current version differs from the previous 1988 version in that it contains only the rules on spelling and orthography, whereas the previous version also contained a terminology list.

One of the many aspects of language standardisation is the standardisation of the spelling of words by selecting a standard form from amongst different orthographical variations of a particular word. The decision as to which variant should be the standard one should not be an individual one, based on personal preferences, but should be linguistically well-informed, and preferably based on a spelling rule. The advantage of having linguistically sound spelling rules is that they help guide and thus, enabling language users to also make correct choices when confronted with words which do not appear in the official terminology list. This is especially relevant regarding to the spelling of transliterations.

Transliterations are words borrowed from other languages (in the case of Northern Sotho, usually from Afrikaans or English) which have been adapted to conform morphologically and phonologically to the structure of the borrowing language (Taljard, n.d.). It is understandable that the spelling of such lexical items can be problematic, since they originate from source languages of which the morphological structure is vastly different from that of the borrowing language; also, they introduce speech sounds which are extra systemic into the borrowing language, and these sounds need to be catered for

orthographically. The use of transliterations are a very productive word formation strategy, although not always regarded in a favourable light by language purists.

However, this research seeks to identify all the foreign sounds and consonant clusters relating to transliterations in Northern Sotho that occur in the second last publication, namely *Sesotho sa Leboa Mareo le Mongwalo No. 4/ Northern Sotho Terminology and Orthography No.4* (Northern Sotho Language Board, 1988) and other documents that contain borrowings. These sounds and foreign consonant clusters will be analysed to establish which vowels are used to be inserted between specific consonants and lastly to identify possible consistent patterns that can assist in the reformulation of spelling rules.

#### **1.4 PROBLEM STATEMENT**

Borrowing has been used as one of the strategies to supplement the vocabularies of languages across the world. However, there are challenges which come with borrowing words from one language to another. Regarding Northern Sotho spelling rules as they appear in the Northern Sotho Language Board publication (2008) there is ambiguity. There seems to be no clear indication in which cases consonant clusters should be split up when transliterations are formed, and in which cases these consonant clusters can be retained. The trigger for this research, therefore, is that no systematic analysis has been made of transliterations in Sesotho sa Leboa<sup>2</sup> from which more specific rules can be generated.

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<sup>2</sup> Sesotho sa Leboa and Northern Sotho are names of the same language and may be used interchangeably in this research.

## **1.5 AIM AND OBJECTIVES OF THE STUDY**

### **1.5.1 Aim**

The aim of this study is to examine transliterations in Northern Sotho, to see if the orthography rules have been consistently applied.

### **1.5.2 Objectives**

The aim of the study has been broken down into the following objectives:

- (a) To identify Northern Sotho perception and representation of foreign sounds in loanwords.
- (b) To identify foreign consonant clusters and how they are presented in Northern Sotho transliterations that occur in the *Terminology and Orthography No.4 of 1988*.
- (c) To analyse these transliterations in terms of the vowels that are used between specific consonants.
- (d) To consider transliterations from other official documents and identify possible consistent patterns that can assist in the reformulation of spelling rules.

### **1.5.3 Research questions**

This research seeks to answer the following questions:

- (a) How are foreign sounds perceived and produced in Northern Sotho loanwords?
- (b) Which foreign consonant clusters are problematic for Northern Sotho transliterations?
- (c) Is there any consistency in the choice of vowels when foreign consonant clusters are split up?
- (d) How can an empirical analysis of the adaptation of sounds and consonant clusters in Northern Sotho assist in the formulation of spelling rules?

## **1.6 RATIONALE AND SIGNIFICANCE**

The standardisation of the spelling of words is one of the features of standardisation of a language. The decision as to which spelling or variant is to be used for a particular word must not be based on personal interests, but should be based on linguistic evidence, spelling rules specifically. Sound spelling rules help, to a large extent, when dealing with words which are not available within the official terminology list and are to be added. This is very pertinent to the spelling of transliterations. The situation of a similar word being spelt differently by people of the same language seems to counter standardisation efforts. Clear rules should be formulated and used firmly and consistently.

The findings from this study will be of significance to the language as they will contribute to standardisation of transliterations. It will assist in the application of spelling rules and minimise the amount of spelling variations for one word. The findings will also convince language purists of a need for linguistic borrowing as long as there are clearly formulated rules. Language users will know which vowels should be inserted between specific consonants when transliterations are formed. The vocabulary of a language will develop through clear and consistent application of orthographic rules.

## **1.7 DEFINITION OF KEY TERMS**

- 1.7.1 Linguistic Borrowing – “the adoption of a linguistic expression from one language into another” (Anwar, 2017:110).
- 1.7.2 Transliteration – a strategy in which the borrowed term must conform to the phonological spelling and morphological structure of the receptor language (Ramani, Kekana, Modiba, and Joseph, 2007).
- 1.7.3 Loanword – a word that has been taken over from a foreign language and which has been adapted to fit into the sound system and grammar of the borrowing language. (Louwrens, 1993; 1994; Poulos and Louwrens, 1994).

- 1.7.4 Orthography – a term used to refer to a writing system of a language (Louwrens, 1994). It is the correct or conventional way of spelling and the study or science of spelling (Alberts, 2013:3).
- 1.7.5 Standardisation – the process of regularising something so that it conforms to a certain norm. Regarding language, it is the process of arranging rules according to a system and it includes the development of spelling (loanword adaptation) and orthography (writing form) (Taljard, n.d.).
- 1.7.6 Northern Sotho – the English equivalent of Sesotho sa Leboa, one of the official languages of the Republic of South Africa. It is a member of the Sotho language group, Guthrie’s S30 (Nurse and Philippson, 2003), also known by its International Standard Organisation (ISO 639-2) Code *nso*. It is a standard language primarily used by speakers of several varieties of the provinces of Limpopo and Mpumalanga, as well as the northern parts of Gauteng province.

## **1.8 THEORETICAL FRAMEWORK AND RESEARCH METHODOLOGY**

This research will be guided by the theories of adaptation (Peperkamp and Dupoux, 2003) and correspondence (McCarthy and Prince, 1999). The research employed a qualitative research approach to address the aim and objectives, and to obtain answers to the research questions. The theoretical framework and research methodology will be discussed in chapter 3.

## **1.9 SCOPE AND OUTLINE OF THE STUDY**

### **1.9.1 Scope of the study**

This study will be limited to the documents and electronic sites that may provide possible candidates in the form of Northern Sotho loanwords.

## **1.9.2 Outline of the study**

Chapter 1: Introduction and background to the study

The first chapter presents the background to the study, research problem, aim, objectives and research questions, rationale and significance, and defines the key terms used in the study.

Chapter 2: Literature review

In chapter two, previous literature on linguistic borrowing, adaptation and orthography is reviewed.

Chapter 3: Theoretical framework and research methodology

This chapter discusses the theoretical framework and the research methods employed for the study.

Chapter 4: Data presentation

This chapter presents the data collected from various Northern Sotho sources.

Chapter 5: Data analysis and discussion

Chapter five analyses the data presented in chapter four and discusses the main findings.

Chapter 6: Conclusions

This is the final chapter in which the main findings are summarised and general conclusions drawn. The recommendations are also presented in this chapter.

## **1.10 CONCLUSION**

This chapter introduced the study by first giving a background on the languages of Africa. These languages are categorised into four large different phyla on the basis of their resemblances and geographical proximity. The greater the proximity, the more they resemble one another. These four phyla comprise of language families within them, including the Bantu language family which belongs to the Niger-Congo phylum, subdivision B in particular. The Bantu language family is a large family of languages spoken



in sub-Saharan Africa. This family contains amongst others all the official African languages of the Republic of South Africa, including Northern Sotho.

The chapter also presents the problem statement, aim and objectives, as well as rationale and significance of the research. The theoretical framework and research methodology are briefly introduced. The chapter ends by giving the scope and outline of the study.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

This chapter reviews previous literature on linguistic borrowing. The review begins with linguistic borrowing in general and moves on to discuss the African languages of South Africa, including Northern Sotho. Factors influencing linguistic borrowing such as work, social, economic, political and religious factors and a continuous rapid growth of technology will be highlighted. The impact that linguistic borrowing has on the borrowing language semantically, morphologically, phonetically and phonologically will also be discussed in full.

#### **2.2 FACTORS INFLUENCING LINGUISTIC BORROWING GLOBALLY**

Various research studies on strategies for word-formation, word-building, word borrowing and transliterations were done across the world and it seems like it has not been an easy task to deal with. Jamieson (2011) talks about the difficulties encountered with the transposition of the name New Zealand into Nu Tirani. He explains that it was “the first and earliest known name of their nation of New Zealand, Aotearoa – in its being built up constituently from three independent Kupu, namely ao, tea, and roa, which when amalgamated altogether signify their country of the long-white-cloud” (Jamieson, 2011:431).

According to Jamieson (2011), within the dominion of linguistic borrowings, loanwords function greatly like legal transplants in the comparative law sector. He continues by saying that not in all cases do loanwords fit in; in some instances, they may not fit in, depending on whether they plug a linguistic loophole or they continue as foreign imports. Jamieson

(2011) says controversy over inhorn terms was widespread in the mid-17th century, during the transition from Middle English to Modern English and it is the time when Shakespeare and other linguists borrowed many words from traditional sources to create new ones. In that process words such as *skeleton*, *pneumonia* and *thermometer* would successfully settle in whereas words such as *niche*, *nidulate* and Shakespearean *tortive*, *persive* and *cadent* would not settle. Jamieson (2011) states that words which may not settle create a disagreement amongst the enthusiasts and linguists. He further avers that borrowing words instead of building them creates a huge social part of lively linguistic activity in present day Aotearoa. Regardless of difficulties of transliterations, borrowing usually took place from English into the Maori language initially, but later more and more from Maori into English. In a case like this the two languages could be recognised and accepted. However, there are cross-cultural activities where one would overtake the other and both languages would exhaust rather than exhilarate one another. This means notions and perceptions will move from one culture to another between these two languages.

Ahangari and Moradi (2013) point out that many words that are borrowed from one language to another are linked to matters pertaining to the loaning countries. They argue that this does not in any way benefit borrowing languages because this makes the lending countries more superior than the borrowing ones. In addition, the lending countries gain advantages (such as respect, requirements and importance of the culture) over borrowing countries in these matters.

Sabui (2016) explains that English began borrowing words from languages such as Arabic and languages from East Asia like Sanskrit and Mandarin during its attempt to become the world's medium of instruction. He points out that the growth of borrowing is a result of lack of vocabulary in language. During the borrowing process a language goes through changes in the articulation and other phonetic characteristics. Sabui (2016) further expounds that, as a result, it is normal to have many different articulations for the same word of languages spoken universally like English. Changes in pronunciation in a borrowing language are mostly caused by the lack of association with the source language.

However, as time goes by, new words which are made during the process of borrowing become common and used conventionally. The first languages developed through the process of conventionalisation and with the advancement of technology and globalisation this process has grown, reaching all parts of the world with new words.

Anwar (2017:110) defines linguistic borrowing as “the adoption of a linguistic expression from one language into another”. He further indicates that the “language from which words are adopted is often referred to as the source, lending or donor language while the language in which those words are adopted is labeled recipient or receptor language”. He says borrowing is the process of joining features originating from one language to another. It is a process where a vocabulary of a particular language is increased through taking words from another language and incorporating them into its own vocabulary. This usually happens due to the receptor language’s lack of means to term newly introduced products or notions, exposing ‘holes’ in the language. Therefore, it becomes important for the process of borrowing to take place in order to fill the holes in the vocabulary of the recipient language. According to Anwar (2017:111), there are two conditions in which borrowing occurs: Firstly, “two languages may have certain common features because these features are universal in nature”. Secondly, “two languages may share the features because they have common ancestor or common culture”.

In introducing issues around linguistic borrowing Anwar (2017) begins by bringing to the picture the case of Urdu, a language which was born through interaction between people from Northwestern India and Muslim soldiers of various nations during the 12<sup>th</sup> century AD. This interaction had a huge effect on the sociocultural life of Northern India and it led to a linguistic union. The linguistic amalgamation led to the creation of a new language which could be referred to as a mixed language. This mixed language was later referred to as Urdu. According to Anwar (2017) it is the borrowing of many words from foreign languages like Arabic, Turkish and Persian that made the existence of the Urdu language possible.

Migration, as illustrated with the case of Urdu above, is one of the major aspects leading to linguistic borrowing. On this point Anwar (2017) indicates that immigrants tend to transfer words from the foreign country to the language spoken in their homeland or home country. Also, since some countries have a language diversity situation, migration could also take place internally in the home country, from one language to another or from one dialect to another. He illustrates this state of affairs with English loanwords which have spread inside American Norwegian dialects such as ‘frame’, ‘peeler’ and ‘peddler’ (Anwar, 2017:110).

Another reason for linguistic borrowing that Anwar (2017) mentions is bilingualism. He cites India, where it is important for Muslims to learn Arabic for religious purposes but also for learners to learn Hindi or other local languages and English as a medium of instruction. He further says borrowing a language is the same as borrowing a culture because a culture and a language are intertwined. When the receptor language borrows vocabulary from a source language, the borrowed word or words at times shift their meaning. This is referred to as semantic change where words in the language loses their linguistic and philosophical meaning. When words are borrowed, it is vital to consider the meaning of the word from the source language because semantic change affects the linguistic, social and cultural life of people from the receptor language. Religion of the North Indians was also affected due to interaction and many Indians from the Northern part were converted to the Islamic religion. This conversion to Islamic religion led to a necessity to borrow Arabic words (Anwar, 2017).

Therefore, linguistic borrowing becomes inevitable in all communities affected by migration, multilingualism, multiculturalism, globalisation and technological advancement.

### **2.3 LINGUISTIC BORROWING IN THE OFFICIAL AFRICAN LANGUAGES OF SOUTH AFRICA**

With reference to the South African situation, Raper (2010) states that the first people to inhabit Southern Africa were the San. Language and cultural contact came into being after the interaction between the San and the Khoikhoi, and later between the Africans and European settlers during the colonisation period. This contact gave rise to language shifts and borrowings and had an impact on the place-names, which were originally named in the San language. New names were created through the adaptation of old names. Newly coined names conformed to the language structure and phonology of the new comers. In addition, Raper says, the Khoisan languages have become almost extinct particularly in the 20<sup>th</sup> century.

In her study of borrowing in isiNdebele Mahlangu (2014) asserts that there is no language that does not need to borrow vocabulary from others. All languages add their vocabulary through borrowing from other languages for survival. A language is a vibrant entity and it cannot remain unchanged. She notes that language ‘purists’ prefer the creation of new words rather than borrowing, which other scholars refer to as ‘indirect borrowing’ (cf. Louwrens, 1993. Mahlangu (2014) is of the opinion that in the case of African languages where there is a serious need of vocabulary, there is nothing wrong with using a borrowing strategy to supplement the vocabulary list of the borrowing language. However, she cautions that borrowing does not only develop a language; it is also responsible for the dilution of languages, particularly in the developing countries. She states that isiNdebele has been borrowing words mainly from Afrikaans and has more borrowed words than indigenous words simply because they have a serious insufficiency of vocabulary. The significance of borrowing and loaning words is to fill the disparity within the vocabulary of the receptor language.

Mafela (2010) confirms that borrowing takes place between languages which are geographically close to one another. Multilingual countries such as South Africa get exposed to this kind of a situation due to geographical closeness of different languages. He

states that as people are not stagnant and make contact everyday with different people of different cultures and languages, languages are also not stagnant, but change over time. Borrowing takes place during interaction of language societies in different places such as church, work, school and social places.

Mafela (2010) highlights advantages and disadvantages of borrowing, namely that during the process of borrowing or development some indigenous vocabulary items lose their meaning, some become neglected and eventually outdated. The advantage is that borrowing, as one of the language development strategies, supplements the vocabulary of the recipient language. However, the adaptation process of linguistic borrowing involves change in pronunciation and morphological structure as words conform to the phonological and morphological rules of the receptor language.

Mafela (2010) and Mahlangu (2014) agree on the significance of linguistic borrowing as it increases the vocabulary of the borrowing language. Mafela (2010) further states that borrowing has equipped South African indigenous languages. He argues that African languages could not cope with the newly introduced technical, scientific, political, economic, social, and religious terms because they lack the vocabulary but thanks to the borrowing strategy they are enhanced. This means many words are borrowed from Afrikaans and English to boost these languages' vocabularies.

Most loanwords in the indigenous languages of South Africa are borrowed from Afrikaans and English. Listed below are some of the words that Mafela (2010:693-694) uses to illustrate this point:

**Tshivenda:**

iron (English): *aini*

altar (English): *alitare*

bank (Afrikaans and English): *bannga*

brood (Afrikaans): *vhurotho*

papier (Afrikaans): *bammbiri*

deposit (English): *diphositi*

**Nguni languages:**

petrol (English): *ipetroli* (isiXhosa)

botter (Afrikaans): *ibhotolo* (isiXhosa)

bank (Afrikaans and English): *ibhanki* (isiXhosa)

library (English): *ilabhulali* (isiZulu)

dorp (Afrikaans): *idolobha* (isiZulu)

science (English): *isayensi* (isiZulu)

**Sotho languages:**

iron (English): *aene*

bank (Afrikaans and English): *banka* (Sesotho), *panka* (Sesotho sa Leboa)

papier (Afrikaans): *pampiri* (Sesotho sa Leboa)

petrol (English): *peterole* (Sesotho sa Leboa)

mathematics (English): *mathematiki* (Sesotho sa Leboa)

tafel (Afrikaans): *tafole* (Setswana), *tafola* (Sesotho sa Leboa)

**Xitsonga:**

iron (English): *ayini*

bank (Afrikaans and English): *banki*

paper (English): *phepha*

kilometre (English): *khilomitha*

science (English): *sayense*

dorp (Afrikaans): *doroba*

However, indigenous African languages do not only borrow from the so-called developed languages; they also borrow from one another. Mafela (2010) illustrates this point with the word *mukhukhu*, which he declares to be an original Northern Sotho word, meaning a



shelter made of zinc and also a Zion Christian Church dance. He indicates that the word has been accepted and is used by all indigenous South African language groups.

With regard to dictionary writing, Mafela (2010:693) observes that too much vocabulary of African language dictionaries is borrowed from English and Afrikaans, which may be due to the lack of sufficient terminologies in these languages. English and Afrikaans also borrow words from African languages, for instance *mopanie* (Afrikaans), *mopane/mopani* (English) from *mupani* in Tshivenda; *lobôla* (Afrikaans), *lobola* (English) from *lobola* in isiZulu; *maroela* (Afrikaans), *marula* (English) from *morula* in Sesotho sa Leboa. He does not find evidence that transliterations formed when African languages borrow from one another are considered when dictionaries are compiled.

Whilst it is good to borrow words and other linguistic expressions from language to language, Alberts (2013) cautions that compilers of dictionaries must be familiar with and obey the orthographic and spelling rules of a language when compiling a dictionary. These rules include word-formation processes and that words cannot be formed without adhering to spelling and orthographic rules.

Alberts (2013) notes that many years ago people did not write and as time went by there came a need to write down their stories, thoughts, ideas, folk tales, idioms, and proverbs. Writing styles varied according to languages and cultures. For good communication to take place a writing style had to be developed through coding and translating. Commenting on Northern Sotho as a written language, Alberts (2013) points out that after initial work of the missionaries several boards were established for the purpose of systematising the orthography of the language. She defines the “term ‘orthography’ as the correct or conventional way of spelling and the study or science of spelling” (Alberts, 2013:3). It is through orthography that we get to understand symbols and how to use them, therefore orthography is very significant. She explicates that languages that are written down today, are the ones which are more important, have status and are rated more highly than other varieties. Only varieties which have status, have their orthography developed. This means the “standard orthography is based on a standard variety of a language” (Alberts, 2013:3).

Linguists and other language practitioners are responsible for the developments which take place within a given language. Alberts (2013) adds that it is inevitable for a language not to change since there are too many interactions of different groups of people every day. Languages are bound to change due to contacts of people from various language groups. According to Alberts (2013) changes or developments in a language affect the spelling and orthography. Standardising the spelling and orthographic system is crucial because, for instance, compilers of dictionaries follow these rules, “translators cannot translate, editors cannot verify and edit, and publishers cannot publish without standardised spelling and orthographic rules” (Alberts, 2013:4). If the spelling and orthographic system are incorrectly formed, then the community of that language would write and spell unsystematically.

Wildsmith-Cromarty (2008) and Gauton, Taljard, Mabasa and Netshitomboni (2008) discuss linguistic borrowing from a translation perspective. Wildsmith-Cromarty (2008) states that African languages such as Zulu, Sotho and Tswana are widely spoken in their respective demarcations in South Africa and this means there is a need for the development of these languages into media of instruction. In this development there is a need for consultation and cooperation with language teachers, specialists and other translators.

The Constitution of the Republic of South Africa (Act 108 of 1996) promotes multilingualism by making 11 languages official, also protecting and promoting the cultural, social and religious life of everyone in the country (Wildsmith-Cromarty, 2008). The official languages appear in the Constitution (Act 108 of 1996) as IsiZulu, IsiXhosa, siSwati, IsiNdebele, Sesotho, Sepedi<sup>3</sup>, Setswana, Xitsonga, English and Afrikaans. According to Wildsmith-Cromarty (2008) in 2002 the Department of Education enacted the right of everyone to learn in the language of their choice, meaning previously disadvantaged languages (indigenous South African languages in particular) were developed and promoted in Education.

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<sup>3</sup> The Interim Constitution of the Republic of South Africa (Act 200 of 1993) carries the language’s correct name, Sesotho sa Leboa

Wildsmith-Cromarty (2008) claims that before and during the Bantu Education system, there was no need for the development of African languages because they were seen as inferior languages which lack enough vocabulary more especially in terms of newly introduced products. Therefore, these languages could not be used technically, academically, scientifically or as medium of instruction. She indicates that after the Bantu Education system, the new South Africa was born with new departments, together with language boards and terminology services. The purpose of these language divisions was to extend the use of African languages in Education.

Wildsmith-Cromarty (2008) argues that there are challenges threatening terminology development in African languages in the sense that most loanwords undergo semantic change and do not represent the intended meanings. She states that this may be due to lack of consultations with language specialists, language teachers and local language speakers when new words are created. As a result, she says, there are inconsistencies and inconvenient strategies of coining new words because the people from the language divisions are continuing to create words without consulting local speech communities and specialists.

Gauton et al. (2008) find that translation is a huge and challenging task more especially when technical texts are being translated into South African languages and to a small amount into Afrikaans. They assert that the main problem in these languages is that they have inadequate vocabulary. This means translators cannot depend on their current information anymore but are obliged to do research outside wordlists or dictionaries. They identify transliterations and loanwords as primary strategies to translate terms and explain transliterations as new scientific and technical terms formed by adapting the phonological structure of the loanword to the sound system of the borrowing language (Gauton et al., 2008:154). They maintain that translators working on developing languages must have a deeper understanding of the “*word-formation processes*” than translators of developed language (Gauton et al., 2008:154).

According to Jones, Podile and Puttkammer (2005:7) borrowing is a “process whereby a word or frozen phrase from another language is imported into the vocabulary of a given language”. They find borrowing to be a tradition within the science and technology area because this area’s culture is foreign to most, if not all, African countries (developing countries). A language is vibrant, and no language would have all the words for the newly introduced vocabularies, particularly in multilingual countries like South Africa. Jones et al. (2005) maintain that establishing standard word forms for both lexical and orthographical levels is a challenge, particularly in South African languages since they have insufficient terminology. The inconsistencies found on the lexical level are visible on dialectal differences, borrowings and coinages (neologisms).

With reference to isiXhosa, Jones et al. (2005) assert that at first when isiXhosa was being developed, borrowed words were supposed to conform to the morphological structure of the receptor language, a situation that is currently not always possible.

## **2.4 BORROWING IN NORTHERN SOTHO**

Northern Sotho is a collective term which includes about twenty-seven dialects based in the Limpopo province and parts of Mpumalanga. It is the inclusive term which encompasses dialects such as Sekone, Seroka, Selobedu, Sepedi, Sehananwa, Sepulana, SePhalaborwa, Setlokwa and others (Taljard, n.d). The Constitution of the Republic of South Africa (Act 108 of 1996) refers to the language as Sepedi, a matter which was later corrected in a government gazette, Government Gazette 22223 of 20 April 2001 (Board Notice 76 of 2001 in terms of Section (11) of Act 51 of 1995).

Northern Sotho forms part of the Sotho language group, also called Sotho-Tswana, within the Bantu language family. The Sotho-Tswana language group, Guthrie’s zone S30, in South Africa consists of Sesotho sa Leboa (Northern Sotho), Sesotho (Southern Sotho) and Setswana. Outside the borders of South Africa there is Silozi (Lozi), which is also a

member of the Sotho language group. Sesotho and Setswana are cross-border languages, also spoken in Lesotho and Botswana respectively. All these languages share many linguistic features, confirming common ancestry. However, they are perceived as independent languages because of some slight differences that are salient amongst them and separate them from one another (Poulos and Louwrens, 1994).

According to Kosch, Sekere, Mabaso, Mojapelo, Ranamane, Mabuza and Sengani (2014), there are various aspects to borrowing, viz. phonetics, phonology, morphology, syntax, and semantics. When expressions are adopted, they become adapted and altered to suit and conform to the phonetic, phonological, morphological, syntactic and semantic systems of the borrowing language.

#### **2.4.1 Semantic adaptation**

Mutual influence between languages that are geographically close to one another or in areas where there is language diversity is unavoidable. Interaction between languages or dialects leads to linguistic borrowing, which is the adoption of words from other languages or dialects close by or languages that are rich in vocabulary. In most cases, indigenous African languages in South Africa are the ones borrowing words from developed languages because they seem to be lacking vocabulary in newly introduced technical terms (Louwrens, 1993). However, indigenous African languages also borrow from one another.

Linguistic borrowing takes place when people of different cultures interact with one another which leads to the adoption of words which were formerly strange to the borrowing language's speakers. Words might be semantically affected when borrowing between two different cultures takes place because words are used to maintain and convey culture and cultural ties. Louwrens (1993) points out that when a word is borrowed from a source language culture, it may lose its meaning in the borrowing language's culture in the sense that it may be generalised or specified or may have a completely new meaning. Furthermore, words might be used to express certain emotions within a particular language

but the emotive content of the source word might wholly or to some extent change in the borrowing language.

According to Louwrens (1993:9), loanwords, which are frequently called adoptives, “are borrowings which have been completely adapted to the language system of the borrowing language”. This means that there is nothing strange about the linguistic characteristics of these words because they completely deceive their foreign derivation, for example, Northern Sotho *sepikiri* from Afrikaans ‘spyker’ (nail) and *tafol* from Afrikaans ‘tafel’ (table). He defines foreign words, on the other hand, as partial or unadapted words which are taken into the borrowing language such as the Northern Sotho loanword *video*, which is not adapted at all. The partially adapted loanwords are those which, although adapted to some extent, still contain foreign consonant clusters. Louwrens (1993) gives *moprofeta* ‘prophet’ as an example of a partially adapted word because the foreign consonant cluster *pr* is retained in the Northern Sotho word.

Louwrens (1993) distinguishes two types of borrowing, direct and indirect borrowing. Direct borrowing is the type where a loanword’s meaning in the source and borrowing language is the same, such as Northern Sotho *paesekela* ‘bicycle’. In the case of indirect borrowing, either only the foreign concept or the meaning is taken over. A foreign concept may be associated with an indigenous concept and therefore the loanword may develop from there. An example that Louwrens (1993) gives is Northern Sotho *aloga* ‘return from initiation school’ which is associated with graduation and has become the word used for ‘(to) graduate’. Another form of indirect borrowing is when a concept is received in a culture and a new word is coined in the receiving language to name it. Sometimes the coined word exists alongside the borrowed one as synonyms. Tables 2.1 and 2.2 illustrate cases of direct and indirect borrowing respectively in Northern Sotho<sup>4</sup>, from Louwrens (1993).

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<sup>4</sup> Afr. stands for Afrikaans and Eng. for English, as source languages.

**Table 2.1: Direct borrowing**

<b>Words in source language</b>	<b>Northern Sotho loanwords (direct borrowing)</b>
tafel (Afr. for table)	tafola
brood (Afr. for bread)	borotho
skool (Afr.)/ school (Eng.)	sekolo
spyker (Afr. for nail)	sepikiri
collar (Eng.)	kholoro
koek (Afr.)/ cake (Eng.)	kuku/ khekhe
koerant (Afr. for newspaper)	kuranta
glas (Afr.)/ glass (Eng.)	galase

**Table 2.2: Indirect borrowing**

<b>Northern Sotho adapted words</b>	<b>Northern Sotho coined words</b>
radio (radio)	seyalemoya
mmotoro (motorcar)	sefatanaga
sekuta (motorbike: scooter)	sethuthuthu
paesekela (bicycle)	ntlanya
tšamo (jam)	kgotlaomone
khontense/ kontase (condensed milk)	kgomobolekana
sele (cellular phone)	sellathekeng
folaematšhene (aeroplane: fly machine)	sefofane
malekere (lekker, Afr. for sweets)	dimonamonane

The meaning of loanwords is not always the same as the meaning of the counterpart in the source language. Sometimes the meaning changes. Louwrens (1993) explains that change of meaning is when a loanword conveys a meaning in the borrowing language which is different from the meaning in the foreign source language. This results in one word having

more than one meaning to speakers of different cultures. Louwrens (1993) uses the Northern Sotho word *ponto* ‘pound’ for illustration. He indicates that Northern Sotho speakers refer to two rands as *ponto* ‘pound’, which initially denoted a currency of Britain. After the presentation of the Rand financial system *ponto* remained to refer to two rands in Northern Sotho. Similarly, Northern Sotho *šeleng* ‘shilling’, also from the British financial system refers to ten cents. These two examples of monetary reference illustrate how a referential change may lead to semantic change. According to Louwrens (1993), a whole language community or a large group of speakers in a language community must first accept the sense change of a word before meaning change can be seen and understood.

When words undergo a semantic change because of borrowing, the borrowing term’s meaning may be specified or reduced to a component of the original word. On the other hand, the meaning of the term might be generalised or expanded to include the newly coined word, or the word may suffer a drastic change in meaning. Emotive and cultural values that are observable in the original word of the source language might be severely or cynically affected by such changes (Louwrens, 1993).

Louwrens (1993) says, generally, borrowing vocabulary from foreign cultures is the primary cause of meaning change in loanwords. Factors such as linguistic, historical, social or psychological factors must be looked up when working with semantic change in loanwords, more especially those factors which have an effect on loanwords. Shortening words is one of the causes of meaning change in words. After the omission of parts of a word has taken place, the whole meaning of the untruncated word is passed on to the residual word. The residual word may experience a sense-change if the omission becomes a habit. Louwrens (1993) explains the residual word as the surviving part from the word which was shortened, though the residual portion of the word remains maimed but sufficient to the item. Radical meaning changes are caused by these types of shortenings such as in Northern Sotho *swiri* ‘lemon’ from the Afrikaans word ‘*suurlemoen*’, *moswiri* being ‘lemon tree’ from Afrikaans ‘*suurlemoenboom*’ (Louwrens, 1993). Only the first part



of the Afrikaans compound is carried over into Northern Sotho to fully represent the whole source language word.

According to Louwrens (1993:10), change of meaning can also be caused by analogical transfer. Meaning change through analogy is caused by similarities between persons, ideas, and things that a word, phrase or object refers to. For analogous transfer to take place, there must be a convincing connection that is real between the item that the loanword originally referred to and the newly introduced referent. For example, *namoneiti* from English 'lemonade' does not refer to lemonade in Northern Sotho but to any cold drink or beverage irrespective of the presence of lemon as an ingredient. Another example that Louwrens (1993) gives is *tšhekase* 'checkers'. Checkers, the chain store, was the first to introduce a certain type of plastic carrier. The carrier bag was branded with the name of the shop; therefore, it was called *tšhekase* 'checkers'. The name of the store Checkers was transferred to its plastic bag. Later, when other businesses began to use carrier bags in the same material and texture, they were all called *tšhekase*, irrespective of their logos or names. There is always a strong active relation between the items where analogical transfer is involved.

Another form of transfer in borrowing is metonymic transfer (Louwrens,1993). Metonymic transfer occurs when the original referent's meaning is shifted from a superordinate to a subordinate position in the borrowing language. For example, Northern Sotho *setopolaete* 'stop light' to refer to a traffic light or robot. In this example, the meaning of the traffic light or robot has been shifted from a superordinate to a subordinate position by referring to it as one of its mechanisms. In the source language, the stop light is only one part of the traffic light, which is the red part.

Louwrens (1993) stresses that newly introduced items have to be given names to be referred to. A new word might be coined based on the resemblance between the already existing item and the new item and the coinage is also on the basis of the speaker's perception of the resemblance. In this case, the whole meaning of the old item is carried over to the newly coined word or the meaning of the existing referent may be stretched to

comprise a new referent in the borrowing language. The meaning may be carried over deliberately or not deliberately. The resemblance between the old item and the newly created item plays a significant part in this regard. The English word 'parcel' means anything that is enfolded, it can be a letter or a package. However, the word was adapted to Northern Sotho phonological, phonetical and morphological forms as '*phasela*' which means 'gift' in Northern Sotho. Both gift and parcel resemble one another in the sense that they are both enfolded or wrapped.

Popular etymology also plays a huge part in meaning changes in loanwords. (Louwrens (1993) illustrates by circumstances where the meaning and the form of a borrowed word are incorrectly linked with another word due to a resemblance of sound, as in the case of the incorrect connection between the Northern Sotho word *sepanapudi* and the Afrikaans surname Swanepoel. Louwrens (1993) points out that the reason might be that the two words are similar in sound. *Sepanapudi* 'a person who yokes goats' is a Northern Sotho word. Similarly, the meaning and the form of the Northern Sotho borrowed word '*setokofele*' is incorrectly linked with the English phrase 'stock- fair', and *mantšinkelane* 'nightwatchman' with the English phrase 'march in a line'.

Louwrens (1993) maintains that mentality can also cause meaning change in the borrowing language. The hilarious attitude towards a foreign word or phrase may have a huge influence in the mind of an individual who ends up sharing it with the community and then later it becomes a commonly used word in that borrowing linguistic society. For example, the English phrase 'to run away' was humorously linked with chicken feet that are packed in packages in stores for sale and that resulted in chicken feet being called *diranawei* in Northern Sotho. Similarly, the Northern Sotho borrowed term *setopnonsense* is used to refer to a contemporary fencing material. It is hilariously linked with the English phrase 'to stop the nonsense' which means to stop disharmony between neighbours.

Mojela (2010) defines borrowing as accepting words of a foreign language into a given language and using those words to refer to new concepts which the receptor language did

not have before. He says the Nguni languages, Tshivenda, Xitsonga, Afrikaans and English are responsible for the growing vocabulary of Northern Sotho.

Mojela (2010) argues that initially, before standardisation took place, there were no linguistic rules, language control and monitoring bodies, so borrowing took place freely without being monitored. During this period many words were borrowed in most indigenous African languages. Northern Sotho borrowed vocabulary freely from Afrikaans, Dutch, the Nguni languages, German and English. The vocabulary from these languages helped the Northern Sotho community to a large extent because they could then name newly introduced technical and scientific products. Because these words were adapted to the phonological and linguistic system of indigenous African languages, when standardisation began, these words were already established and were seen by language standardisers as indigenous words. Mojela (2010) presents the words as follows:

*tšhelete* 'money' (Afrikaans *geld*)

*manala* 'nails' (Afrikaans *naels*)

*pere* 'horse' (Afrikaans *perd*)

*lepolanka* 'plank' (Afrikaans *plank*)

*lebili* 'wheel'

*katse* 'cat' (Afrikaans *kat*)

*lejakane* 'Christian' (Afrikaans *diaken* 'deacon')

*sekhambeleni* 'sweetened water' (Ndebele *skhambeleni* 'what have we travelled for (if not for this)?')

*lefamolele* or *lefamolebe* 'person who went away for a long time' (Afrikaans *vanmelewe* 'long ago')

*puku* 'book'

*sefepi* 'whip' (Afrikaans *sweep*)

*tšhofa* 'push' (English *shove*)

Ramani et al. (2007) researched the feasibility of using Sesotho sa Leboa as the language for teaching and learning at the University of Limpopo. They were guided by the notion

that learners grasp new concepts better if they are taught through the medium of their home language. According to Ramani et al. (2007), the misconception that African languages are not yet fully developed is one of the notions that prevent these languages from being used as languages of teaching and learning. They contend that this misconception delays the progress in the Language Bodies responsible for the development of these languages in Higher Education. Therefore, they coined new terms using various strategies such as transliteration, transference and omission.

Table 2.3 below contains transliterations from English to Sesotho sa Leboa (Ramani et al., 2007).

**Table 2.3: Transliterations**

<b>English</b>	<b>Sesotho sa Leboa</b>
sample	sampolo
variable	bariepolo
industry	intaseteri
continent	kontinente
technical	setegniki

Ramani et al., (2007) explain transference as taking vocabulary from the source language, and they give the following examples:

- (a) Introduction to multilingualism: *Matseno go bomalementši*
- (b) Oral communication in a multilingual society: *Kgokagano ya molomo setšhabeng sa bomalementši*

The next sentence is their illustration of omission whereby the word ‘process’ has been omitted:

English: Research is seen as a process of gathering data in order to answer certain questions.

Sesotho sa Leboa: *Nyakišišo e bonwa bjalo ka kgoboketšo ya tshedimošo gore go arabje dipotšišo tše itšego.*

## 2.4.2 Morphological adaptation

African languages, Bantu languages in particular, are agglutinating with rich morphology. Words may contain different morphemes to determine their meanings, but all remain, in every aspect, unchanged after their union. Class prefixes mark noun classes and each one of them expresses a different meaning. In addition, plurality and singularity of noun classes are also controlled by class prefixes. Loanwords which are morphologically adapted to the Bantu languages will fall under a certain noun class, if they are nouns (Kosch et al., 2014). Table 2.4 shows morphologically adapted borrowed nouns conforming to the pertinent nominal classes (classes 15-18 are excluded due to their prefixes not being able to reflect accommodation of loanwords).

**Table 2.4: Morphological adaptation of nouns**

<b>Singular</b>	<b>Plural</b>
<b>m</b> oprofeta (cl.1): prophet	<b>b</b> aprofeta (cl.2)
<b>m</b> oswiri (cl.3): <i>suurlemoenboom</i> , Afr. for ‘lemon tree’	<b>m</b> eswiri (cl.4)
<b>l</b> etaese (cl.5): dice	<b>m</b> ataese (cl.6)
<b>s</b> ekolo (cl.7): <i>skool</i> , Afr. ‘school’	<b>d</b> ikolo (cl.8)
thelebišene (cl.9): television	<b>d</b> ithelebišene (cl.10)
<b>b</b> orotho (cl.14): <i>brood</i> , Afr. for ‘bread’	<b>m</b> arotho (cl.6)

Syntactically, the adapted borrowed nouns above can serve both as subjects and objects of a sentence. In such cases, they attain relevant morphological agreement (Kosch et al., 2014).

Verbs are adapted morphologically to Northern Sotho by assuming the affixes that the original Northern Sotho verbs use. As illustration, Table 2.5 below (Kosch et al., 2014) compares a loaned verb stem with a Northern Sotho original verb stem, and the adaptability of the loan word by taking relevant morphology:

**Table 2.5: Morphological adaptation of loan verb stems**

<i>Original Northern Sotho verb stems</i>	<i>Loaned verb stems</i>	<i>Suffixes used</i>
-bofa ‘tie’	-berekā: <i>werk</i> , Afr. for ‘work’	modal <i>-a</i>
-bofile	-berekile	perfect <i>-ile</i>
-bofiša	-berekīša	causative <i>-iš-</i>
-bofela	-berekela	applied <i>-el-</i>
-bofana	-berekana	reciprocal <i>-an-</i>
*-bofwa > -bofša	-berekwa	passive <i>-w-</i>
-bofega	-berekēga	neuter <i>-eg-</i>
-ipofa	-ipereka	reflexive <i>i-</i>
-mmofa	-mmereka	class 1, AgrO <i>mo-</i>
-mpofa	-mpereka	1 <sup>st</sup> p.s, AgrO <i>N-</i>
-bofolla	-berekolla	reversive <i>-oll-</i>

Looking at the examples in Table 2.5 above, the loanword verb stem is adapted well enough to be able to be expanded using prefixes and suffixes in the same way that the original Northern Sotho verb stem does.

### 2.4.3 Phonetic and phonological adaptation

Phonetics is a linguistic component that deals with the production of speech sounds while phonology deals with how the speech sounds are used in a language. Therefore, the area of phonetics and phonology deals with a language's sound system. When a word is adopted from a language that belongs to a different language family, it comes with a foreign sound system which must be altered to conform to the sound system of the borrowing language. In the following examples of words from English and Afrikaans to Northern Sotho the bolded letters represent specific speech sounds in different languages:

#### 2.4.3.1 [b] > [p']

**b**us: **p**ase/ **p**ese

**b**ox: **l**epokisi

**b**ucket: **p**akete

**b**rake: **p**oriki

#### 2.4.3.2 [d] > [t']

**d**onkey: **t**onki

**d**orp: **t**oropo (Afrikaans for 'town')

**d**rama: **t**erama

**d**ocuments: **d**itokomane

#### 2.4.3.3 [v] > [β]

**v**an: **b**ene

te**v**ision: the**l**e**β**išene

**w**erk: **b**ereka (Afrikaans for 'work': letter *w* represents speech sound [v])

The examples in 2.4.3.1 – 2.4.3.3 illustrate that a foreign sound is changed to the closest or nearest sound available in the borrowing language. In addition, the foreign syllable structure (if the borrowing language belongs to the Bantu family such as Northern Sotho) must be modified to conform to the open syllable structure (CV-CV-CV), which is the

general canonical structure of Bantu languages. The consonant-vowel arrangement is most likely to vary from the structure of a loanword’s language of origin if the language belongs to a different family. In Northern Sotho, a single consonant or vowel alone can create a syllable on its own. For example, *sello* (sorrow) > *se-l-lo* and *leeto* (trip) > *le-e-to*. A vowel would be inserted between two consonants to adapt it to the general canonical structure of Bantu languages in case a loanword has a foreign consonant cluster. Table 2.6 below shows the syllables of Northern Sotho words separated by dashes.

**Table 2.6: Syllables in Northern Sotho words**

<i>Basic cv-cv-cv</i>	<i>Vowels</i>	<i>Nasal consonants</i>	<i>r and l</i>
ro-ga-na ‘swear’	ma- <b>a</b> -ba-ne	<b>m</b> -pho ‘gift’	mo- <b>l</b> -lo ‘fire’
se-ba ‘gossip’	‘yesterday’	<b>n</b> -to-me ‘bite me’	<b>l</b> -le ‘ate’
re-ka ‘buy’	le- <b>i</b> -no ‘tooth’	<b>n</b> -nya-ke-le ‘search	<b>r</b> -ra ‘father’
ki-ti-ma ‘run’	le- <b>e</b> ‘egg’	for me’	
mo-di-mo ‘god’	se- <b>e</b> -ta ‘shoe’	<b>n</b> -kgo-po-tše ‘remind	
	me- <b>e</b> -tse ‘water’	me’	
	le- <b>o</b> -to ‘foot’		
	<b>o</b> -ka ‘nurse’		
	mo- <b>u</b> -ta ‘mould’		

Words in African languages, Bantu in particular, do not end with a consonant apart from the locative suffix and verbal suffix *-ng* (Kosch et al., 2014). Both suffixes appear at the final position of words but they differ in terms of expression and communication. The locative suffix *-ng* signifies the location, for example, *noka* ‘river’: *noka+(i)ng >nokeng* ‘at the river’ and *sekolo* ‘school’: *sekolo+(i)ng > sekolong* ‘at the school’. The verbal suffix signifies plurality, that is, that the instruction or command is directed to more than one person. For example, *sepela* ‘go’ (the instruction to go is in the singular form): *sepela + (-ng) > sepelang* (the instruction to go is in the plural form).



The following examples illustrate accommodation of loanwords from English and Afrikaans into the Northern Sotho syllable structure, as described in the paragraph above Table 2.6:

- 2.4.3.4      fork: **foroko**
- dribble (the ball): **tiribola**
- plot: **poloto**
- kerk: **kereke** (Afrikaans for ‘church’)

A recent study on Northern Sotho loanwords is Chokoe (2020). Among other factors, Chokoe (2020) attributes the existence of loanwords to acculturation, which he defines as “the dual process of cultural and psychological change that takes place as a result of contact between two or more cultural groups and their individual members” (Chokoe, 2020:130). The study is closely associated with the current study as Chokoe’s (2020) concern is the inconsistent way in which loan words are written in Northern Sotho. He examines various sources, including dictionaries and uses *Northern Sotho Terminology and Orthography No. 4* as the main source of data as he considers it the most comprehensive out of the four spelling and orthography rule books available in Northern Sotho. Table 2.7 presents Chokoe’s (2020) findings on how a particular loanword appears in various dictionaries:

**Table 2.7: Northern Sotho loanwords across dictionaries**

Source word	Pukuntšuthaloši ya Sesotho sa Leboa	Sesotho sa Leboa (Northern Sotho)- English Dictionary (SSL)	Popular ya Sekolo (PYS)	Popular Northern Sotho Dictionary (PNS)	Groot Noord-Sotho Woordboek (GNS)
klerk (Afr.)	klereke	klereke	klereke	klereke tlelereke	klereke tlereke
Christmas (Eng.)	-	krisemose kresmose	kresemose	krisemose keresemose	keresemose
gravel (Eng.)		krabole	-	karabole	kerabole
taxi (Eng.)	thekisi (Eng)	thekisi tekisi theksi	taxi thekisi	thekisi tekisi	thekisi
maximum (Eng.)	-	maksimamo maksemamo	maksimamo	makisimamo makesemamo	-
province (Eng.)	profense	porofense	profense	profense porofense	porobense porofense
project (Eng.)/ projek (Afr.)	-	protšekto (Eng.)	projeke (Afr.)	protšekto (Eng.)	-
straat (Afr.)	-	seterata setarata	setrata	setarata	seterata setarata
insurance (Eng.)	inšorenshe inšorenshe		inšorenshe	inšuransi	inšorenshe inšorens

The above table displays the lack of uniformity in the orthography of loanwords in Northern Sotho.

Concerning the sound system, he indicates that loanwords that conform to the canonical syllable structure are readily acceptable, unlike those that still contain foreign sounds and consonant clusters. Chokoe (2020) finds that consonants are the most problematic sounds, individually or in clusters, when loanwords are formed. When a foreign word contains a

consonant that is not available in Northern Sotho, it is often not clear which nearest consonant must be used.

For the sake of standardisation, Chokoe (2020) maintains that linguistic rules that govern the spelling and orthography of the language must be applied consistently. In that way there will be consistency, and it will be clear when the rules are broken. He concludes by recommending adherence to the writing that conforms to the Northern Sotho syllable structure and gives examples such as *aletara* for ‘altar’, *pebele* for ‘bible’, *poranti* for ‘brandy’ and *tlelase* for ‘class’. The list of recommended loanword forms presented in Chokoe (2020) aligns orthographically with pronunciation, thereby also addressing the consonant problem. The recommendations constitute a huge step towards debates that will lead to the formulation of spelling rules for loanwords in Northern Sotho.

## 2.5 CONCLUSION

This chapter reviewed previous literature on linguistic borrowing. Linguistic borrowing in general, in African languages of South Africa and Northern Sotho were discussed in the review. Mafela (2010) and Anwar (2017), define linguistic borrowing in different ways but the main point from their definitions is that it is about lending and receiving between a receptor and a source language. Both international and South African scholars are of the notion that contacts between people of various cultures and languages give rise to language shifts and borrowings. They all agree that when the receptor language borrows vocabulary from a source language, the borrowed word or words at times shift their meaning and become neglected and eventually outdated (Louwrens, 1993; Wildsmith-Cromarty, 2008; Mafela, 2010; Anwar, 2017).

According to Mahlangu (2014), meaning shift might be the reason why some people, particularly language purists, prefer to create new words rather than borrowing. This strategy is referred to as indirect borrowing by Louwrens (1993) and Mojela (2010). Chokoe (2020) focuses on the orthography of loanwords and bemoans the inconsistencies

that prevail in Northern Sotho. Based on the observation that loanwords that conform to the canonical syllable structure of the language are more acceptable than those that are not, he recommends that conformity of loanwords should be considered and provides several suggestions. The reviewed literature confirms that borrowing is a significant part of language development and it must happen to supplement the vocabulary of the borrowing language despite its disadvantages. Therefore, the borrowing language needs to make sure the results of the process are clear and consistently applied.

## **CHAPTER 3**

### **THEORETICAL FRAMEWORK AND RESEARCH METHODOLOGY**

#### **3.1 INTRODUCTION**

This chapter discusses the theoretical framework and the research methods employed for the study. With reference to theoretical framework, this research is guided by the theories of adaptation (Peperkamp and Dupoux, 2003) and correspondence (McCarthy and Prince, 1999). Phonetic theory of adaptation of loanwords is concerned with how speakers of a borrowing language perceive foreign sounds and produce them in their language. Correspondence theory compares the loanword, as output, with its original foreign counterpart (input) for “faithfulness” (McCarthy and Prince, 1999). The two theories will be suitable for this research because orthography is mainly dependent on how people speak.

Research methodology is a systematic way to solve a problem. The section of research methodology focuses on research design, data collection, study population and sampling and data analysis procedures. The research employed a qualitative research design to address the aim and to obtain answers to the research questions.

#### **3.2 THEORETICAL FRAMEWORK**

Theoretical framework is a structure that can hold or support a theory of a research study. It is important in a research study to introduce and describe the theory that explains why the research problem under the study exists. It connects the researcher to the existing knowledge (Smyth, 2004). According to Miller (2007), a theoretical framework makes available the expectations that direct the research and assists the researcher in choosing the suitable questions for the study and suitable approaches for data collection. LeCompte and

Preissle (1993) add that a theoretical framework directs the researcher in choosing the appropriate research design.

### 3.2.1 The theory of loanword adaptation

Adaptation theory posits that words borrowed from a foreign language undergo alterations that are influenced by perception of an individual from a particular borrowing language. Borrowed words that do not sound well are adapted to the phonological system of the borrowing language so that they sound well. In other words, they are made to be well-formed enough to match the phonological grammar of the borrowing language. There are repair strategies applied to borrowed words for them to be well-formed which involve “general phonological processes such as segmental, suprasegmental changes as well as epenthesis and deletion” (Peperkamp and Dupoux, 2003:367). The examples from Peperkamp and Dupoux (2003) below are of English words borrowed into different languages:

#### 3.2.1.1 Repair strategies in loanwords

- a) [rəntən] < *London* Korean
- b) [wəkmán] < *Walkman* French
- c) [sufiŋkusu] < *sphinx* Japanese
- d) [pe.si] < *pepsi* White Hmong

According to Peperkamp and Dupoux (2003), the way in which one perceives a word from a foreign language influences the way one produces it, which means foreign words are adapted to the phonological grammar of the borrowing language.

Peperkamp and Dupoux (2003:367) discovered the phonological ‘deafness’ that exists within nonnative languages, that is the “inability or extreme difficulty to discriminate certain nonnative contrasts, involves segmental and suprasegmental contrasts, and differences in terms of presence versus absence of a segment”. Peperkamp and Dupoux

(2003) provide the following examples of phonological deafness of English by different language listeners:

### 3.2.1.2 Phonological ‘deafness’

- a) [ri:d] > [li: d], by Korean listeners
- b) [vasúma] > [vásuma], by French listeners
- c) [ebuzo] > [ebzo], by Japanese listeners

Looking at the above examples, the general phonological processes (3.2.1.1) and phonological ‘deafness’ (3.2.1.2) have a large amount of similarity in terms of the perception of the borrowing language speaker. One’s perception of a foreign word has a huge influence on its representation in the borrowing language (Peperkamp and Dupoux, 2003).

Peperkamp and Dupoux (2003) are of the view that phonetic representation of the words in the source language creates input to loanword adaptations while phonological grammar of the borrowing language configures the output. Regarding one’s perception of a word from a foreign language, the phonetic form of the foreign word may be copied faithfully onto an abstract fundamental form so that normal phonological processes produce adaptations in output.

According to Peperkamp and Dupoux (2003) changes brought by segment and numerous circumstances of segmental deletion are argued to apply in perception. Reduction of illegal foreign forms to conform to the standard of the native phonology are created by loanword adaptations. There are several repair strategies used to adapt non-native segments into native ones. Epenthesis may occur by insertion of a vowel between illegal consonant clusters or a vowel may be deleted. It may also be that there is no specific vowel for insertion and more than one vowel might be available for use. As a result, loanword adaptations seem to be confusing in a situation whereby it is not clear which repair strategy should be used within a phonological grammar that is pure (Peperkamp and Dupoux, 2003).

Peperkamp and Dupoux (2003) argue that phonetic implementation of the offending clusters in the source language dictate the choice for deletion instead of epenthesis in adaptations of illegal consonant clusters. Ill-formed syllable structured loanwords from English into the Cantonese language are being repaired by both deletion and epenthesis strategies. Epenthesis is applied where words contain a final fricative sound consonant cluster, and deletion is applied where the final consonant of a word is a stop sound. This is all because “in English, fricatives have stronger phonetic cues than stops in word-final position” (Peperkamp and Dupoux, 2003:368). The phonetic implementation of the offending clusters in the source language influences the choice for strategy (deletion or epenthesis) to be applied in adaptations of illegal consonant clusters.

There are different views on whether adaptation is phonetic or phonological. Phonetic views say adaptation occurs at perception level. Phonological studies are of the notion that adaptations are phonological in nature and occur in production. There are also views that adaptations do not take place only in production but also in perception and that some are more phonetically defined than phonologically (Peperkamp and Dupoux, 2003).

Concerning repairs as phonetically-based perceptual adaptations, an original and expressively acceptable model of loanword adaptations is outlined. A phonetic decoding model and a phonological decoding model are differentiated. A phonetic decoding model is said to map an incessant sound signal on a separate “representation called the phonetic surface form” while surface forms are being mapped by a decoding model on potential underlying forms. The closest available category is where a sound from a native word will be mapped on and here closeness is defined in terms of sound closeness or closeness in the sense of delicate arrangements of speech sounds signs. This may result in the irrelevancy of phonological closeness that is reflected in the featured structure of segments (Peperkamp and Dupoux, 2003:368).



In cases where phonological closeness is irrelevant, phonetic decoding acts as a cleaner and results in a loss of many speech sounds mapped on phonetic categories. The mapping is immensely unfaithful when it comes to nonnative sounds because “the phonetic categories to which these sounds are mapped in the foreign language can simply be absent from the native one” (Peperkamp and Dupoux, 2003:368). This results in a loss of dissimilarity between nonnative sounds and native sounds. Listeners find it difficult to perceive a difference between two foreign sounds which are mapped on the same category at the phonetic surface level because of their closeness to the same native category (Peperkamp and Dupoux, 2003).

Peperkamp and Dupoux (2003), conclude that the cause of phonological deafness at the segmental level is the phonetic decoding model. Alteration of illegal segments in loanword adaptations are also caused by the phonetic decoding model. During perception, nonnative sounds are recoded as native sounds and illegal segments in loanword adaptations occur in the course of phonetic decoding in perception. All segments in loanword adaptations are phonetically slightly altered. Furthermore, loanword adaptations will always be phonetically minimal alterations if there is an involvement of suprasegments and syllable structure.

According to Peperkamp and Dupoux (2003:369), there are two challenges one needs to be aware of when gathering information on loanwords. First is the impact of orthography on loanwords. On this point they cite the French adaptation of the Afrikaans word “*boer* ‘Boer’ as [boɛr], where the phonetic form of the source word, [bur], is not only a possible French form, but actually one with a higher phono tactic probability than [boɛr]”. Orthography, therefore, can play a huge part in all adaptations in cases where inputs are written or done by people who can spell loanwords in the source language. The second challenge is the difference in sounds in terms of phonetic characteristics that exist in the recipient language and/or the source language.

Both challenges relate directly to the current study as the difference in sounds between the two languages impact on how they may be written.

### **3.2.2 Correspondence theory**

Correspondence theory compares the loanword, as output, with its original foreign counterpart (input) for “faithfulness” (McCarthy and Prince,1999). The theory requires a model of restraints on the accuracy of the output (the production) to the input, which is the original word from the foreign language. There are multiple phonological adaptation strategies for loanwords.

Before expounding correspondence theory, Smith (2009:155) explains adaptation as “the process of taking a form from the source language and incorporating it into the borrowing language”. He says that this practice is usually performed by the speakers from the borrowing language community with little experience in the source language. According to Smith (2009), modelling phonological similarity is what the correspondence theory is about. The theory defines a new correspondence relation by openly formalising loanword-source similarity effects. Although they would not survive in the borrowing language-internal phonology, source language features keep up with the borrowing language’s loanwords once faithfulness constraints are highly ranked within the correspondence relation.

According to Smith (2009) a person from the borrowing language community gets information about the source language processes by perceiving the articulation of that language. The obtained information about the source language is then encrypted in the posited source language representation. The truthfully perceived features of the source language system make the posited source language form the same as the source language “surface form”. This results in the possibility for making “phonetic-level perceptual similarity effects in loanword adaptations”. The perception of a borrowing language system

might be one-sided or imbalanced due to the list of segments from the source language perception system (Smith, 2009:158).

The knowledge that a borrowing language speaker has about a source language system can be influenced by the orthography (Smith, 2009). There are some phonological or phonetical content from a source language that a borrowing language speaker would not aurally perceive but can possibly perceive through the orthography, which provides such information to the phonological or phonetical content of the source language. Smith (2009:158) argues that, obtaining information from a word in a written form of a source language might be better than an acoustic borrowing in the sense that, it makes the posited source language representation more like the real source language than aural borrowing would have been. On the other hand, borrowing language speakers, do sometimes misunderstand the written form of a source language and this causes a complete difference in segmental categories between the posited source language representation and source language surface form. On this point Smith (2009) gives an example of “[u] for expected [a] in Japanese [buza:] from English buzzer”.

Concerning flexibility of adaptation strategies, source similarity restrictions are being officialised in correspondence theory by the correspondence relation model. This is a method used by the correspondence model to faithfulness constraints. Unlike other strategies, the correspondence relation model does not limit the variety of available strategies for adaptation. Other strategies reduce loanwords to misperception (Smith, 2009).

According to Smith (2009), some adaptations of loanwords in Japanese take place in posited source language representation where epenthesis is being prompted by specific present consonants only, for orthographic reasons. Consonants which prompt epenthesis rise from orthography not misperception. Based on orthographic materials, there is a very large amount of loanword adaptations taking place in Japanese. Orthography has an influence on the posited source language representation form and this is evidence enough on the occurrence of insertion and removal of perception in loanwords from English.

Whilst the sound systems of both the source and borrowing languages may influence adaptation at perception and production levels, it is also important to observe correspondence both aurally and orthographically. All factors need to be considered to avoid misrepresentation when dealing with the orthography of borrowed words.

### **3.3 RESEARCH METHODOLOGY**

This section focuses on research design, study population and sampling, data collection method and data analysis procedures. The research data was collected using the non-interactive method, and the same data was analysed through document analysis method. The study population comprises words that entered Northern Sotho from other languages and came to be used as Northern Sotho words. The sampling method used was purposeful sampling, from sources that were likely to contain such words.

#### **3.3.1 Research design**

A research design is the “procedure for collecting, analysing, interpreting and reporting data in research studies” (Creswell and Plano Clark, 2007:58). Research design lays down a guide on the collection of the required data the on how to analyse it (Cresswell and Plano Clark, 2007). This study was conducted using the qualitative research design.

Merriam and Grenier (2019) define qualitative research as the approach that attempts to collect rich data in respect of a particular phenomenon or context with the intention of developing an understanding of what is being observed or studied. They argue that in qualitative research, researchers make sense of their world and the experiences they have in the world through understanding the meaning other people have constructed. They further describe the approach as exploratory in nature, which uses flexible data collection methods and is usually in the form of narratives of lived experiences and observations, rather than numbers. On the contrary, a quantitative research approach is a process that is systematic and objective in its ways of using numerical data from only a sample of a

population to generalise the findings to the population that is being studied (Maree and Van der Westhuizen, 2009).

With reference to the preceding paragraphs, the qualitative research approach seems the most suitable for this study because it does not rely on numbers or statistics but is rather exploratory and descriptive. Qualitative research covers non-interactive methods such as document analysis where data is collected from texts and documents, analysed and interpreted. A quantitative research approach would not be suitable because the gathered data for this study will not be calculated or measured numerically.

### **3.3.2 Data collection methods**

Data collection is a way of gathering, assessing and studying information for the research through authenticated methods (Cresswell and Plano Clark, 2007). Regardless of the field of research, data collection is the most significant and main phase for research. A theory can be assessed based on gathered data by a researcher. Depending on the required data, methods of data collection vary from one field to another.

For this study, data was collected through a non-interactive method, namely document analysis. Twelve Northern Sotho documents were selected based on the relatively large number of loanwords they contain. Out of all the twelve documents used for data collection, the publication of the Northern Sotho Language Board (1988) was the primary source because it contains the largest number of Northern Sotho loanwords and a comprehensive orthography guide. The remaining eleven documents, such as *Lekgotla la Bosetšhaba la Polelo ya Sesotho sa Leboa* (2008), Northern Sotho school books like (*Mahube* by Mokgoatšana et al, 2008 , *Lebone* by Makhalemele et al., 2013, *Polelo ke Lehumo* Maja et al., 2005) and *Sesotho sa Leboa sa Mahlahla* by Serudu et al., 1988), study guides (*Pukutlhahlo e nnoši ya NSO102-A* by Kotzè et al., 1999 and *Study guide for AFL3701* by Kosch et al., 2014) and a government document (*Molaotheo wa Repabliki ya Afrika Borwa, Molao 108 wa 1996*) were used as additional sources for data collection

since they also contain quite a number of loanwords. The data collected was categorised into three groups of fully adapted, partially adapted and unadapted words.

### **3.3.3 Study population and sampling**

Population sampling is the procedure of selecting a subdivision of subjects that is representative of the whole population.

The study population comprised words that entered Northern Sotho from other languages (mainly English and Afrikaans), that have gone through some adaptation processes (full and partial adaptation processes) and those that have been taken as they are (not adapted at all). This population of words was divided into the mentioned three categories. Purposeful sampling was used to identify and select the most effective resources that are rich in borrowed words and to focus specifically on borrowed words.

### **3.3.4 Data analysis methods**

Data analysis is an effective way of determining valuable information by way of examining, altering, cleaning and demonstrating data. Data analysis can be approached in many ways containing various methods and can be applied differently in different fields of study. These methods are useful and help the researcher to select relevant and accurate information required by the research study.

The data for this study was analysed qualitatively, based on the theories of loanword adaptation and correspondence. Sounds and patterns between the source word (input) and the Northern Sotho loanwords (output) were observed and analysed. The input and output were compared for faithfulness, according to the correspondence theory. The representation of the output was analysed in relation to the phonetic-phonological system and orthography of Northern Sotho.

Secondly, the words were analysed in terms of consonant clusters foreign to Northern Sotho and the vowels that are used to separate specific consonants, to split the cluster. The analysis stretched further to the observations on indication of aspiration, the orthographic representation of extra systemic speech sounds and the final vowel.

Thirdly, loanwords were compared for orthographical consistency. This comparison was done using various sources containing Northern Sotho words. To establish the (in)consistencies in orthography, the Northern Sotho spelling rules were revisited to compare them with the identified words being examined.

### **3.4 ETHICAL CONSIDERATIONS**

This study is desk research, which involves document analysis. No human beings were used or interviewed; the research was purely non-interactive. However, in line with the institution's *Policy on Research Ethics of 2016 of the University of South Africa (UNISA)*, clearance must be granted for all research studies. Application was therefore made, and research ethical clearance granted.

### **3.5 CONCLUSION**

In this chapter, two theories, namely the theory of loanword adaptation and the correspondence theory, were discussed. From the two theories, it was observed that the perception of an individual seems to play a significant role and has a huge influence on how words borrowed from a foreign language are produced and presented in the borrowing language. When a word is borrowed, repair strategies such as general phonological processes, epenthesis and deletion are applied for it to conform to the system of the borrowing language. Regarding correspondence theory, the original word from a foreign language is compared with the product in the borrowing language for faithfulness. These perceptions and productions in turn inform the representation of the loanword within the systems of the borrowing language. The chapter also explained the research methodology

employed for the study, namely the qualitative research method. The data comprise loanwords that were collected through a non-interactive method from several documents and analysed according to the tenets of correspondence and adaptation theories of loanwords.



## CHAPTER 4

### DATA PRESENTATION

#### 4.1 INTRODUCTION

This chapter presents Northern Sotho loanwords alphabetically, though from various sources such as Terminology and Orthography of both 1988 and 2008, Northern Sotho school learners' books (*Polelo ke Lehumo, Lebone, Mahube, Sesotho sa Leboa sa Mahlaha*), university study guides (*Pukutlhahlo e nnoši ya NSO102-A*, and *Study guide for AFL3701*), academic journal articles and a government document (*Molao 108 wa 1996*). The data was categorised in terms of fully adapted and partially adapted loanwords, as well as words with no adaptation at all. This chapter seeks to examine perceived (in)consistencies when transliterations are formed.

#### 4.2 TABLES WITH LOAN WORDS

Northern Sotho has an open syllable structure, that is, words do not end with a consonant except **-ng**. **-ng** represents two different suffixes, one attaches to nouns and the other to verbs. When added to a common noun the suffix **-ng** turns the noun into a locative, hence it is called a locative suffix. The one that attaches to verbs marks plurality on the subject of the verb, and it appears with verbs in the imperative and subjunctive moods. However, in some language families such as Germanic (English and Afrikaans in the case of this study), words do end with a consonant. When loanwords enter Northern Sotho from these languages, they are either phonologically accepted as they are without any adaptation or they are partially or fully adapted. On individual sound level *fan* will be *fene* because the [f] is not foreign to Northern Sotho. However, *bank* will be *panka* because Northern Sotho does not have speech sound [b]. The closest to [b] in Northern Sotho are [β] and [p'], and production gets informed by perception. In addition, *van* becomes *bene* because Northern

Sotho does not have [v]; the closest sound is [β]. English words containing the vowel [ɪ], have the vowel pronounced as [i] in Northern Sotho. Northern Sotho's canonical syllable structure is consonant-vowel (CV), which is why foreign consonant clusters are split up and separated by a vowel when transliterations are formed to conform to the language's general syllable structure.

In the presentation below, the shortened form of **Afr.** indicates that the source language of the borrowed word is Afrikaans. English (**Eng.**) is scarcely indicated as most words in the data were found to be from English. Where there are two source language options, both will appear. Under the partial adaptation column, only consonants, syllable structures and consonant clusters which are foreign to Northern Sotho have been bolded, that is, *demokrasi* (democracy). Bearing in mind that in Northern Sotho, words do not end with a consonant except the **-ng** locative or verbal suffix, such anomalies are bolded as well; for example, *naelon* (nylon) and *ekstšhentsš* (exchange).

The table below lists Northern Sotho words that are phonologically fully adapted, partially adapted and words with no adaptation:

**Table 4.1: Three categories of loanword phonetic-phonological adaptation in Northern Sotho**

Full adaptation	Partial adaptation	No adaptation
abesinia (abessinië/ abyssinia)	aedeolotši (ideologie/ideology)	agenda
aerise (iris)	aese <b>kh</b> rimi (ice-cream)	algae
aese (ice)	aevori (ivory)	alkali
aesehokhi (ice hockey)	afid <b>d</b> abiti (affidavit)	allegretto
aesene (asyn, Afr. for vinegar)	<b>a</b> frika (africa)	allegro
agose <b>t</b> ose (augustus, Afr. for August)	<b>a</b> frikan <b>s</b> e (afrikaans)	alps
akere (akker/ acre)	<b>a</b> frikatš <b>a</b> (africanise)	alto
akhiolotši (archaeology)	akad <b>e</b> miki (academic)	amoeba
akiriliki (acrylic)	akhustiki (acoustic)	australia
	<b>a</b> kronimi (acronym)	bacteria

aletšiniki (allergenic)	<b>aksone</b> (axone/ axon)	boland
aluminiumo (aluminium)	<b>albamo</b> (album)	bolero
amatšhoru (amateur)	<b>alfabete/alfapet</b> (alphabet)	broccoli
amerika (america)	<b>alkali</b> (alkalies/ alkaline)	cantata
amilase (amilase/ amylase)	<b>almanaka</b> (almanac (nautical)	celsius
aminoesiti (amino acid)	<b>almanaka</b> (almanak, Afr. for	commodo
amonia (ammonia)	calendar)	crescendo
amphaya (umpire (tennis))	<b>altare</b> (altar/ altaar, Afr.)	dahlia
anathomi (anatomy)	<b>althaneitha</b> (alternator)	delta
anatomi (anatomie/ anatomy)	<b>ambasadara</b> (ambassador)	depot
anemia (anaemia)	<b>ampulense/ambulanse</b> (ambulance/	dettol
aneroite (aneroid (of barometer))	ambulans, Afr.)	diminuendo
anthere (anther)	<b>amfipia</b> (amphibian)	dogma
antimoni (antimony)	<b>amfiteatere</b>	dolce
aphesise (apices)	(amphitheatre/amfiteater, Afr.)	dolente
apola/apole (appel/apple)	<b>amilopsine</b> (amylopsin/amilopsien,	domino
aporele (april)	Afr.)	drakensberg
aramite (aramid)	amoniam <b>salfate</b> /amoniamos <b>salfate</b>	dresden
ase (as/ axis)	(ammonium sulfate/ammonium	en masse
aseniki (arsenic)	sulfaat, Afr.)	enema
asetheline (asetileen/ acetiline)	<b>anakronisimo</b> (anachronism)	fahrenheit
asiria (assirië/ assyria)	<b>antartiki</b> (antarctic / antarktika, Afr.)	falsetto
atenoite (adenoids)	<b>aparteiti</b> (apartheid, Afr.)	fine (mus.)
aterese (address)	<b>aphostrofi</b> (apostrophe)	flora
athefeke (artefak/ artefact)	<b>apla</b> (apple/appel, Afr.)	flute
atlantika/ atlantiki	<b>apokrifa</b> (apocrypha)	forte
(atlantiese/ atlantic)	<b>apolosteri</b> (upholstery)	fortissimo
atlase (atlas)	<b>apopleksi</b> (apoplexy/ apopleksie,	greenwich
atletiki (athletic)	Afr.)	ibis
atletiki (atletiek/ athletics)	<b>Aprere</b> (April)	in communicado
atomo (atom)	<b>apstese</b> (upstairs)	invertase

ayotine (iodine)	<b>artiki</b> (arctic/ arktika, Afr.)	jute
babilonia (babilon/ babylon)	<b>asbestose</b> (asbestos)	lenanco
bali (barley)	<b>asbestrose</b> (asbestos)	maltose
bamakabia (makkabeërs/ maccabees)	<b>asbese</b> (asbes, Afr. for asbestos)	mandoline
baniša (varnish - verb)	<b>asparakase</b> (asparagus)	manna
baniši (varnish - noun)	<b>atmosfere</b> (atmosphere)	maori
bariepolo (variable)	<b>atrenaline</b> (adrenaline/ adrenalien, Afr.)	marcato
baselapi (waslap. Afr. for face- cloth)	<b>atrese</b> (address)	metronome
basiluse (bacillus)	<b>atropota</b> (arthropoda (zool.))	mezzo
beibele (bybel/ bible)	<b>bas</b> (bas/ bass (mus.))	mezzoforte
beine (wyn, Afr. for wine)	<b>baterpas</b> (waterpas, Afr. for levelling instrument)	mezzopiano
beke (week)	<b>bibliokrafi</b> (bibliography/ bibliografie, Afr.)	mezzosoprano
bemitšheli (vermicelli)	<b>bilhazia</b> (bilharzia)	module
bereka (werk, Afr. for work)	<b>boislamo</b> (islam)	morendo
bereseba (berseba/ Beersheba)	<b>bokhonsole</b> (consolidation)	opere citato
beteseporete (bedspread)	<b>baambasatara</b> (ambassadors)	ordinario
bethele (bethel)	<b>bolkheno</b> (volcano)	panga
biliate (billiard (of a table))	<b>bomaksisi</b> (marxism)	peninsula
biro (bureau)	<b>maksisime</b> (marksisme, Afr. for marxism)	pericardium
bitamini/bithamini (vitamin)	<b>bomohamede</b> (mohammedanisme. Afr. for mohammedism)	perpendosi(mus.)
boimperiale/imperialisime (imperialisme/imperialism)	<b>brazili</b> (brazil/ brasilië, Afr.)	pianissimo
bokomonisi (communism)	<b>brillante</b> (brilliant/ briljant, Afr.)	piano
bolo (ball e.g football)	<b>brithane</b> (britain)	pizza
boro (bore)	<b>brontshe</b> (bronze)	plasma
boroso (wors. Afr. for sausage)	<b>daboloteke</b> (double-decked bus)	pleura
borotho (brood, Afr. for bread)	<b>daenamo</b> (dynamo)	polio
bosošiale/bosošaliseme (socialism)		prestissimo
boto (board)		pupa
		purim
		retina
		ritardando

bouta (vote – verb)	<b>deisi</b> (daisy)	safari
bulione (bullion)	<b>dekametara</b> (dekameter/decametre)	salute
chemise (chemise, Afr. for chemical - adjective)	<b>dekhothikheitha</b> (decorticator)	sardine
diaetiolotši (ideologies)	<b>demotiki</b> (demotic)	scherzando
diakhaebe (archives)	<b>denimi</b> (denim)	senate
diaparata (apparate, Afr. for apparatuses)	<b>dentraete</b> (dendrite)	serenade
difisiki (physics)	<b>desemere</b> (december)	sforzando
dijenale (journals)	<b>desimale</b> (decimal/ desimaal, Afr.)	silvo
dikamputse (gumboots)	<b>desimaliseišene</b> (decimalisation)	sinai
dikhasino (casinos)	<b>desimetara</b> (decimeter/ desimeter, Afr.)	sirocco
dikhathaloko (catalogues)	<b>diakhronimi</b> (acronyms)	solfa
dikhoso (courses (of college))	<b>diakritiki</b> (diacritic)	solo
dikhwinone (quenons)	<b>dielektron</b> (electrons)	sonata
dikoporase (korporasies/ corporations)	<b>diemthi</b> (empties)	soprano
dikorila (guerillas)	<b>diflute</b> (flutes)	sostenuto
diliki (leeks)	<b>difteria</b> (diphtheria)	sotto voce
dimuseamo (museums)	<b>dilaesense</b> (licenses/ lisensies, Afr.)	studio
dinoutse (notes)	<b>diphamfolete</b> (pamphlets/ pamflette, Afr.)	taxi
diparakisi (barracks)	<b>diphekse</b> (pegs (of clothes))	tempo
dipautu (boute/ bolts)	<b>diphenalthi</b> (penalties)	tempo di marcia
diperesente (percentages)	<b>diphenšene</b> (pensions)	tenuto
diporiki (brakes)	<b>diplomasi</b> (diplomacy/ diplomasie, Afr.)	transkei
diporokeremo (programs)	<b>diplomate</b> (diplomat)	tremolo
dipositi (deposit - noun)	<b>disaeklopedia</b> (encyclopedias)	trio
diranawei (run aways)	<b>dipastele</b> (pastels)	tundra
direite (rates)	<b>dispensari</b> (dispensary)	veto
disenteri (disenterie/ dysentery)	<b>doktoro</b> (doctor (literacy)/ doctor, Afr.)	video
dišere (shares)		vivace
		volume
		watsonia
		white Nile

ditatlele (dadels, Afr. for dates (fruit))	<b>dominione</b> (dominion (territory))	zoo
dithentara (tenders)	<b>draeklini</b> (dryclean)	zygoma
ditšhipisi (chips)	ekes <b>etra</b> (extra/ ekstra, Afr.)	
diwate (wards)	ek <b>saese</b> (exercise)	
diyunibesithi (universities)	ek <b>sodose</b> (exodus)	
easing (icing)	ek <b>soso</b> (exhaust (of vehicle))	
ebolusi/ebolušene (evolusie/ evolution)	ek <b>sponente</b> (exponent, as in arithmetic/ ekponent, Afr.)	
egepeta (egipte/ egypt)	ek <b>stra</b> (extra/ ekstra, Afr.)	
ekhweita (equator)	ek <b>stšhentš</b> (exchange)	
ekonomi (ekonomie/economy)	ek <b>toplasma</b> (ectoplasma/ ektoplasma, Afr.)	
elemente (element)	elastiki (elastic)	
e-meile (e-mail)	el <b>ektrone</b> (electron)	
emere (emmer, Afr. for bucket)	el <b>ektroniki</b> (electronic)	
enamele (enamel)	emalšene (emulsion)	
enetši (energie/ energy)	em <b>bleme</b> (emblem/ embleem, Afr.)	
engelane (engeland/england)	en <b>dokrini</b> (endocrine/ endokriene, Afr.)	
engelesouto (engelse sout, Afr. for epsom salt)	en <b>felope</b> (envelope)	
enke (ink)	en <b>harmoniki</b> (enharmonic)	
enkhoop (encore)	en <b>sime</b> (enzyme/ ensiem, Afr.)	
enteritisi (enteritis)	en <b>tšekšene</b> (injection)	
entšeneare (engineering)	en <b>tšene</b> (engine)	
epidiasekopo (epidiaskoop/ epidiascope)	en <b>somsolte</b> (epsom salt)	
epifise (epifise/ epiphysis)	en <b>fapriki</b> (fabriek, Afr. for factory)	
epiki (epic)	en <b>federale</b> (federal/ federale, Afr.)	
episote (episode)	en <b>fekse</b> (fax/ faks, Afr.)	
epitheliamo (epithelium)	en <b>fibrini</b> (fibrin)	
eponi (ebony)	en <b>fibrinotšene</b> (fibrinogen)	
	en <b>fibrinojene</b> (fibrinogen)	

erakorosetisi (ergrostis)	<b>fikšene</b> (fiction)	
esiti (acid)	<b>filistere</b> (fillister)	
faene (fine)	<b>flakese</b> (flax)	
faki (vaatjie, Afr. for barrel)	<b>fleme</b> (phloem/ floëem, Afr.)	
fankase (fungus)	<b>flenkara</b> (flanker (of rugby))	
fantisi (vendusie/ auction)	<b>fluorospare</b> (fluorspar)	
farao (pharaoh)	<b>fosfate</b> (fosfaat, Afr, for phosphate)	
farinkisi (pharynx)	<b>fosfeiti</b> (phosphate)	
fasisime (fascisme/ fascism)	<b>fosforo/fosforase</b> (phosphor/ fosfor, Afr.)	
fatuku (vadoek, Afr. for dishcloth)	<b>fotostete</b> (photostat/ fotostaat, Afr.)	
febereware (februarie/february)	<b>fototropi</b> (phototropism/ fototropie, Afr.)	
feila (vyl/ file (tool))	<b>freime</b> (frame (of picture))	
felekonete (veldkornet/field-cornet)	<b>freistata</b> (vrystaat, Afr. for (orange) free state)	
felemašale (field-marshal)	<b>fritši</b> (fridge, refrigerator)	
felete (vilt/felt)	<b>geometri</b> (geometrie, Afr. for geometry)	
feme (firm (of institution))	<b>geotropi</b> (geotropie, Afr. for geotropism)	
fene (fan)	<b>geotropisime</b> (geotropism)	
fenitšhara (furniture)	<b>grata</b> (graad, Afr. for grade)	
ferefe (verf, Afr. forpaint)	<b>grefole</b> (griffel, Afr. for slate-pencil)	
ferelone/felone (furlong)	<b>gripi</b> (griep, Afr. for influenza)	
fešene (fashion)	<b>haedrante</b> (hydrant)	
fetereišene (federation)	<b>haedrokloriki</b> (hydrochloric)	
fibula (fibula)	<b>haedroliki</b> (hydraulic)	
fiela (vee, Afr. for sweep)	<b>haedrometera</b> (hydrometer)	
filamente (filament)	<b>haedrotšene-peroksaite</b> (hydrogen-peroxide)	
filimi (film)		
filologi/filolotši (philology)		
filosofara (philosopher)		
filosofi (filosofie/philosophy)		

fiola (viola)	haekrometara (hygrometer/	
fiolo (viool, Afr. for fiddle/violin)	higrometer, Afr.)	
fiolotšhelo (violoncello)	haemoklopini (haemoglobin)	
fisiolotši (fisiologie/physiology)	hektara (hectare)	
folouru (flour)	hektolitara (hectolitre/ hektoliter,	
folaematšhene (fly machine)	Afr.)	
folaweiti (flyweight)	hektometara (hectometer/	
folaga (flag)	hektometer, Afr.)	
folakese (flux (to promote melting)	helikoptere (helicopter/ helikopter,	
folenana (flannelette)	Afr.)	
folene (flannel)	heliotropi (heliotropism/ heliotropie,	
folere (sekhethe) (flared (skirt)	Afr.)	
folete (flat (quarters)	himoklopini (haemoglobin/	
folouru (flour)	hemoglobien, Afr.)	
fomaline (formalien/formalin)	hipiskose (hibiscus)	
fomula (formula)	hipnosisi (hypnosis)	
fonemiki (phonemic)	hipnothaesa (hypnotise/ hipnotiseer,	
fonetiki (phonetic)	Afr.)	
fonimi (phoneme)	hipnotisime (hypnotism/	
fonolotši (fonologie/phonology)	hipnotisme, Afr.)	
fora (france)	histori (history)	
foramo (forum)	hotpleiti (hot-plate)	
forenkekere/-ferekeikere	inflasi (inflasie, Afr. for inflation)	
(verkyker, Afr. for binoculars)	infleišene (inflation)	
foro (voor/ furrow)	infrakstraktšha (infrastructure)	
foroko (vurk/ fork)	infuluensa (influenza)	
foromane (voorman/ foreman)	inseste (incest)	
foromo (form)	inšora (insure)	
fothokhopha (photocopy - verb)	inšorensense (insurance)	
fuele (fuel)	intasteri (industry)	
furu (veering, Afr. for lining)	intastrifatšo (industrialisation)	



fute (voet, Afr. for foot)	isopriene (isoprene)	
futupolo (football)	javeline (javelin (sport))	
galase (glas/glass)	kallery (gallery)	
galone (gallon)	kanada (canada/ kanada, Afr.)	
garetene (gordyn/ curtain)	kastanete (castanets)	
general (generaal/ general)	kastroli (kasterolie, Afr. for castor-oil)	
geologi (geology)	kastrolo (kastrol, Afr. for saucepan)	
gerike/gerika (greece)	katastrale (cadastral/ kadastraal, Afr.)	
gonorea (gonorrhea)	katrolo (katrol, Afr. for pulley)	
hafopeke (halfback)	khabontaoksaete (carbon dioxide)	
hafopeni (halfpennie/ half-penny)	khalbete (culvert)	
hafosente (halfsent/half cent)	khalthiba (cultivar)	
hanimune (honeymoon)	khansele (council)	
hapo (hub)	khapohaetrete (carbohydrate)	
harepa (harp)	khastate (custard)	
harikoto (haricot)	kheiple (cable)	
hekere (hektaar/ hectare)	khokhtheile (cocktail)	
heliamo (helium)	khompresara (compressor)	
hempe (hemp, Afr. for shirt)	khonferense (conference)	
hengara (hanger (of a coat))	khonferensi (konferensie, Afr. for conference)	
hešiene (hessian)	khonkrese (congress/ kongres, Afr.)	
hiatuse (hiatus (gram.))	khonsata (concert/ konsert, Afr.)	
hira (huur, Afr. for rent – verb)	khonsato (concerto)	
hitara (heater)	khonsebethifi (conservative/ konserwatief, Afr.)	
hokhi (hokkie/hockey)	khontensa (condenser)	
holane (holland)	khontense (condensed milk)	
holo (hall (mansion))	khraetheria (criteria/ kriteria, Afr.)	
holosele (wholesaler)		
homone (hormoon/hormone)		
homonimi (homonym)		
honorari (honorary)		

hotele/motele (hotel/motel)	<b>khrematiki</b> (chromatic)	
hotetoko (hot dog)	<b>khrikhete</b> (cricket (sport)/ krieket, Afr.)	
hukara (hooker (of rugby))		
huku (hoek/hook)	<b>khroumo</b> (chrome)	
huku/khona (hoek/corner)	<b>klaba</b> (club (night club))	
humase (humus)	<b>klaekotšene</b> (glycogen)	
humeruse (humerus)	<b>klaemete</b> (climate/ klimaat, Afr.)	
hutara (hooter)	<b>klarinete</b> (clarinet/ klarinet, Afr.)	
inkhupeitara (incubator)	<b>klarione</b> (clarion)	
inkhwese (inquest)	<b>klasekamore</b> (klaskamer, Afr. for classroom)	
inthanete (internet)		
iri (uur/ hour)	<b>klatiolase</b> (gladiolus)	
isele (esel/ easel)	<b>klatšhe</b> (clutch)	
italia (italy)	<b>klefe</b> (clef)	
itere (eter/ether)	<b>klefe ya trebele</b> (treble clef)	
jakopo (jacob)	<b>kleime</b> (claim)	
janere (genre)	<b>klereke</b> (klerk, Afr. for clerk)	
japane (japan)	<b>klesia</b> (glacier)	
jara (jar)	<b>kliente</b> (kliënt, Afr. for customer)	
jeba (jab – verb)	<b>kliniki</b> (clinic/ kliniek, Afr.)	
jebe (jab – noun)	<b>klorefomo</b> (chloroform)	
jeke (jack-plane)	<b>klorine</b> (chlorine)	
jekepoto (jackpot)	<b>klorofile</b> (chlorophyll)	
jeli (jellie/ jelly)	<b>kloupu</b> (globe)	
jeremane (germany)	<b>klukose</b> (glucose)	
jeremia (jeremía, Afr. for jeremiah)	<b>kommando</b> (commando/ kommando, Afr.)	
jesi (jersey)	<b>konstabolo</b> (constable)	
jimi (gym)	<b>kontraka</b> (kontrak, Afr. for contract)	
jiniase (genius)	<b>kontralto</b> (contralto/ kontralt, Afr.)	
julae (july)	<b>krabole</b> (gravel)	

juni (june)	<b>krafo</b> (graph)	
juri (jurie/ jury)	<b>kraonta</b> (grounder (a ground ball))	
kabinete (kabinet/ cabinet)	<b>krayoni</b> (crayon)	
kafeine (kafeien/ caffeine)	<b>krayone</b> (crayon)	
kalakune (kalkoen, Afr. for turkey)	<b>krediti</b> (credit/ krediet, Afr.)	
kalari (gallery)	<b>kreiti</b> (grade - noun)	
kalasiamo (kalsium/ calcium)	<b>krenk</b> (crank shaft)	
kale (kale)	<b>kresolo</b> (cresol/ kresol, Afr.)	
kalekisi (calyx)	<b>kretšhe</b> (crèche)	
kalentara (calendar)	<b>krisa</b> (grease - verb)	
kaliko (kaliko/ calico)	<b>krisemose</b> (christmas)	
kalofu (gulf (of suez))	<b>krisi</b> (grease - noun)	
kalori (kalorie/ calorie)	<b>kristale</b> (kristal, Afr. for crystalline)	
kama (kam/ comb – verb)	<b>Kriste</b> (Christ)	
kampa (kamp/ camp)	<b>krotšhete</b> (crotchet)	
kampana (kamp, Afr. for paddock)	<b>kroumo</b> (chrome)	
kampiamo (kambium/ cambium (tree))	leforotrekere (voortrekker, Afr.)	
kanakarose (kankerroos, Afr. for cocklebur)	leftenente/moleftenente (lieutenant/ luitenant, Afr.)	
kanale (kanaal/ canal (waterway))	lehottentote (hottentot)	
kanale (kanaal/ channel)	lense (lens)	
kanari (kanarie/ canary)	lepastere (baster, Afr. for half-caste)	
kane (kan/ can – noun)	lerentš (ranger)	
kankaru (kangaroo/ kangaroo)	linkwistiki (linguistic)	
kankere (kanker/ cancer)	linsiti (linseed oil)	
kantoro (kantoor, Afr. for office)	lotšistiki (logistics)	
kapa (cape (geography))	logistiki (logistiek, Afr. for logistics)	
kapi (kappie/ bonnet)	maekrofone (microphone)	
kapilari (capillary)	maekropaele (micropyle)	
kapitale (capital)	maekropo (microbes/ mikrobies, Afr.)	

kapotene (kaptein/ captain)	maekrope (microbes/ mikrobese, Afr.)	
karabane (karavaan/ caravan)	maekroskopo (microscope/ mikroskoop, Afr.)	
karakule (karakoel/ karakul)	maeksodema (myxoedema)	
karanta (guarantee – verb)	maknete (magnet)	
karanti (guaranty – noun)	makniamo (magnesium)	
karata (kaart/ card)	maksimamo (maximum)	
karatšhe (garage)	manuskripi (manuscript)	
karu (karoo)	matrik danse (matric dance)	
kase (kaas, Afr. for cheese)	matrikale (madrigal)	
kasein (kaseien/ casein)	matrone (matrone, Afr. for matron)	
kasete (gusset)	metrone (matron)	
katalisa (kataliseer/catalyze)	Meksiko (Mexico)	
kataloko (catalogue)	meniskase (meniscus/ meniskus, Afr.)	
katara (kitaar, Afr. for guitar)	menstrueita (menstruate)	
katekasema (kategismus/ catechism)	milikramo (milligram)	
katse (kat/ cat)	Moafrikanere (Afrikaner)	
kayafase (kajafas/ caiaphas)	moapostola (apostle/ apostel, Afr. – congregant of an apostolic church)	
kayaka (kajak/ kayak)	Moindia (Indian)	
keisare (keiser/ caesar)	monastri (monastery)	
keitara (gaiter (tyre))	monoteisme (monotheism/ monotëisme, Afr.)	
keiti (gate)	monsunu (monsoon)	
kelere (kelder, Afr. for cellar)	mopatriaka (patriarch)	
kepisi (kappie/ cap)	mopresidente (president)	
kerafite (graphite)	moprofeta (prophet/ profet, Afr.)	
kerrafo (graph)	moprotestanta (protestant)	
keramafomo (grammofoon, Afr. for gramophone)	moprotestante (protestant)	
kerasetasja (crustacean)		
kere (gear)		
kerediti (credit)		

kerefe (kerf, Afr. for notch)	<b>moske</b> (mosque)	
kereke (kerk, Afr. for church)	<b>naelon</b> (nylon)	
kerepokisi (gear box)	<b>naetreite</b> (nitrate)	
kerese/kgantlele (kers/ candle)	<b>naetriki</b> (nitric (acid))	
kese (gas)	<b>naetrošene</b> (nitrogen)	
khabaete (carbide)	<b>nansuku</b> (nainsook/ nansoek, Afr.)	
khabareita (carburetter)	<b>nekleisi</b> (necklace)	
khabetšhe (cabbage)	<b>nimfomane</b> (nymphomaniac/ nimfomaan, Afr.)	
khabon (carbon)	<b>nyotralaesa</b> (neutralise)	
khabote (cupboard)	<b>nyuklea</b> (nuclear)	
khaele (chyl/ chyle)	<b>nyurastenia</b> (neurasthenia)	
khaeme (chyme (of animal))	<b>odometara</b> (odometer)	
khaete (kite)	<b>ofsaete</b> (off-side)	
khalikho (calico)	<b>okhestra</b> (orchestra band (mus.))	
khamera (kamera/ camera)	<b>oksideišene</b> (oxidation)	
khamphase (kompas/compass (geo.))	<b>oksilari</b> (auxiliary)	
khamphani (company)	<b>oksimorone</b> (oxymoron)	
khapete (carpet)	<b>oksitšene</b> (oxygen)	
khaponate (karbonaat/ carbonate)	<b>oktoboro</b> (october/ oktober, Afr.)	
kharikhulamo (curriculum)	<b>oktobere</b> (october/ oktober, Afr.)	
khasaba (kassawe/ cassava)	<b>onse</b> (ons, Afr. for ounce)	
khathakhompo (katakombe/ catacomb)	<b>orkese</b> (orkes, Afr. for orchestra)	
khebele (kabel/ cable)	<b>osmose</b> (osmosis/ osmose, Afr.)	
khebine (cabin)	<b>pakteria</b> (bacteria/ bakterieë, Afr.)	
kheisi (case (of court))	<b>pakteriolotši</b> (bacteriology/ bakteriologie, Afr.)	
kheitši (cage)	<b>pankrease</b> (pancreas/ pankreas, Afr.)	
khemikhale (chemical)	<b>paralelokramo</b> (parallelogram)	
kheneone (canyon)	<b>parathaeroide</b> (parathyroid (gland))	
khepe (cab (motor-vehicle))	<b>pasli</b> (parsley)	

kheri (kerrie/curry)	pasporoto (passport/ paspoort, Afr.)	
kheromatiki (chromatic)	pasteurisišene (pasteurisation)	
kherote (carrot)	<b>pedagogiki</b> (pedagogic)	
kheše (cash)	pekloraete (perchloride)	
khešiarara (kassier/ cashier)	<b>pendulamo</b> (pendulum)	
khetšhe (cage)	pentekoste (pentecost)	
khii (key (mus.))	pepsine (pepsin/ pepsien, Afr.)	
khiipoto (keyboard)	<b>peptone</b> (peptone/ pepton, Afr.)	
khile (kiel/ keel)	<b>petroleamo</b> (petroleum)	
khinethiki (kinetic (of energy))	phaerekse (pyrex)	
khitšhi (kitchen)	pheitrone (patron)	
khoile (coil)	<b>phekse</b> (peg (for clothes))	
khoine (coin – noun)	phistene (piston)	
khokhase (koukus/ caucus)	<b>pholiestara</b> (polyester)	
khokhonate (coconut)	phoustara (poster)	
kholera (cholera)	<b>pikriki</b> (picric (acid))	
kholetšhe (kollege/ college)	<b>piskiti</b> (biscuit)	
kholifolawa (cauliflower)	<b>pistile</b> (pistil)	
kholomo (kolom/ column (in print))	<b>plagiarisme</b> (plagiarism)	
kholoro (collar)	<b>planetariumo</b> (planetarium)	
khomedi (komedie/ comedy)	<b>planete</b> (planet)	
khomete (komeet/ comet)	<b>plastiki</b> (plastic)	
khominikheišene/kominikasi (kommunikasie/communication)	polastiki (plastic)	
khomphutha (computer)	<b>platinamo</b> (platinum)	
khona (corner)	<b>pleistere</b> (pleister, Afr. for plaster (on wall))	
khonea (cornea)	<b>plokenthekele</b> (block and tackle)	
khontesara (condenser)	<b>ploko</b> (ya lehlwa) (block (of ice))	
khopi (kopiè/ copy)	<b>ploresi</b> (pleurisy)	
khorale (chorale)	<b>politeisme</b> (polytheism/ politeïsme, Afr.)	

khoramo (kworum/quorum)	polite <b>kniki</b> (polytechnic)	
khoria (courier)	<b>praebete</b> (private)	
khorola (corolla)	<b>praemasetofo</b> (primus-stove)	
khotelibaoile (codliver-oil)	<b>praeri</b> (prairie)	
khothase (quarters)	<b>prase</b> (brass)	
khotheišene (quotation)	<b>prebete</b> (brevet (warrant officer))	
khothete (quartet)	<b>preisi</b> (prys, Afr.for price)	
khotoletone (cotyledon)	<b>premiamo</b> (premium)	
khoukhou (cocoa)	<b>presidente</b> (president)	
khouko (coke)	<b>prinsipala</b> (principal, headmaster)	
khoune (cone (of pine))	<b>prisidente</b> (presedent/ precedent)	
khouni (cone)	<b>prisma</b> (prism (of glass)/prisma)	
khwaere (choir)	<b>profense</b> (province)	
khwalifaya (qualify (in sport))	<b>profesa</b> (professor)	
khwaliti/ khwalithi (quality)	<b>profešenale</b> (professional)	
khwatshe (quartz)	<b>profešene</b> (profession)	
khwebara (quaver (mus.))	<b>projektile</b> (projectile)	
khwinine (quinine)	<b>prospekthase</b> (prospectus)	
khwinthete (kwintet/quintet (mus.))	<b>prothein</b> (protein)	
kiata (kiaat)	<b>protšeke</b> (project)	
kini (guinea)	<b>protšekta</b> (projector)	
kioske (kiosk)	<b>protšekto</b> (projection)	
kiribane (kruwa, Afr. for wheelbarrow)	<b>proutšhe</b> (brooch)	
kirisi (grease)	radiok <b>ramo</b> (radiogram)	
kirisili (gristle)	<b>refraktori</b> (refractor)	
kofi (koffie/ coffee)	rej <b>istara</b> (register (of tone))	
koleke (collection)	renas <b>anse</b> (renaissance)	
kolofo (golf)	rep <b>abliki</b> (republic)	
koloni (kolonie/ colony (territory))	restorante (restaurant)	
	saek <b>lone</b> (cyclone)	
	sa <b>ense</b> (science)	

komišenare (commissioner)	<b>sak</b> ramente (sacrament/ sakrament, Afr.)
komišene (commission)	<b>sak</b> ramo (sacrum)
komiti (komitee/committee)	<b>sak</b> safoune (saxophone)
kompo (kampong/compound (living quarters))	<b>sal</b> feiti (sulphate)
kompose (kompos/compost)	<b>sal</b> petere (salpeter/saltpetre)
komukomu (komkommer, Afr. for cucumber)	<b>salt</b> tana (sultana)
konkoreiti/khonkhoriti (konkrete/ concrete)	<b>sank</b> šene (sanction)
konope (knop, Afr. for button)	<b>sav</b> anna (savannah)
kontinente (kontinent/continent)	sefotrata (sifdraad, Afr. for sieve wire)
kontola (gondola)	š <b>ef</b> rone (chevron (of junction))
koporo (koper/ copper)	se <b>khal</b> bine (calvinism)
kora (score – verb)	se <b>cal</b> vine (calvinism)
koraša (crochet – verb)	se <b>kre</b> pe (scrap (yard))
korašo (crochet (knitting) – noun)	se <b>krip</b> ola (scribbler)
korone (kroon/crown (coin))	se <b>krof</b> olo (skilfers, Afr. for dandruff)
koronete (kornet/ cornet)	se <b>kro</b> lo (scroll)
korong (koring/ corn)	se <b>krufud</b> raeba (screw driver)
koropa (skrop, Afr. for scour)	se <b>krufu</b> tane (skroeftang, Afr. for screw pliers)
korosari (grocery)	sem <b>ipri</b> fi (semibreve)
koroso (gross (12 dozen))	sent <b>ikre</b> iti (centigrade)
kotara (kwartaal/ quarter)	se <b>pr</b> ing (spring – of metal)
kube (kubus/ cube)	se <b>prui</b> (sprue – disease)
kubiki (kubieke/ cubic)	se <b>stet</b> (sextet/ sekstet, Afr.)
kuku/khekhe (koek/ cake)	seta <b>kfle</b> šene (stagflation)
kurani/korani (korundum/ corundum)	seto <b>pn</b> onsense (stop nonsense)
	se <b>tr</b> ata (street)
	se <b>tr</b> atose (stratus)



<p>kuranta (koerant, Afr. for newspaper)</p> <p>kuratoro (kurator/ curator)</p> <p>kwaba (guava)</p> <p>kwaere (choir)</p> <p>kwarantini (quarantine(station))</p> <p>kwepere (kweper, Afr. for quince)</p> <p>laene (line)</p> <p>laesolo (lysol)</p> <p>laiki (laai, Afr. for drawer)</p> <p>lakane (laken, Afr. for sheet cloth)</p> <p>lantšhe (lunch)</p> <p>lebenkele (winkel, Afr. for shop)</p> <p>lefamolele/lefamolebe (vanmelewe, Afr. for long ago)</p> <p>lefasetere (venster, Afr. for window)</p> <p>legrikwa (griekwa/griqua)</p> <p>lejakane (diaken/ deacon)</p> <p>lekhalate (coloured (person))</p> <p>lekomofere (kom ver, Afr. for come from afar)</p> <p>lekula (koelie/ coolie)</p> <p>lelepola (lepel, Afr. for spoon)</p> <p>lemifi (limf/lymph)</p> <p>lemuru (lemur)</p> <p>lene (linne/ linen)</p> <p>leneoli (lynolie, Afr. for linseed oil)</p> <p>lepanta (band)</p> <p>lepantiti (bandiet, Afr. for bandit)</p>	<p><b>setratofere</b> (stratosphere)</p> <p><b>sevenda</b> (venda)</p> <p><b>simfoni</b> (symphony/ simfonie, Afr.)</p> <p><b>sista</b> (sister (nurse))</p> <p><b>sitrase</b> (citrus)</p> <p><b>skeletone</b> (skeleton)</p> <p><b>sketule</b> (schedule)</p> <p><b>skimi</b> (scheme)</p> <p><b>skramo</b> (skrum/ scrum)</p> <p><b>skutelume</b> (scutellum)</p> <p><b>slokene</b> (slogan)</p> <p><b>sonoplomo</b> (sonneblom, Afr. for sunflower)</p> <p><b>sospaane</b> (saucepan)</p> <p><b>spektramo</b> (spectrogram)</p> <p><b>sperebili</b> (spare wheel)</p> <p><b>spidometara</b> (speedometer)</p> <p><b>spikira</b> (speaker)</p> <p><b>spilekase</b> (spieëlkas, Afr. for dressing table)</p> <p><b>stadiamo</b> (stadium)</p> <p><b>stediamo</b> (stadium)</p> <p><b>stamene</b> (stamen)</p> <p><b>stebele</b> (stiebeuel, Afr. for stirrup)</p> <p><b>stensele</b> (stencil)</p> <p><b>stereofoune</b> (stereophone)</p> <p><b>straeka</b> (strike)</p> <p><b>streptomaesene</b> (streptomycin)</p> <p><b>strouku</b> (stroke)</p> <p><b>suprimikhoto</b> (supreme court)</p> <p><b>tabernakele</b> (tabernacle)</p>	
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lepoi/poi/mpoi (boy)	<b>teknikhale</b> (technical)	
lepokisi (kis/ box)	temokrasi (democracy)	
lepolanka (plank)	<b>demokrasi</b> (democracy)	
leporogo (brug, Afr. for bridge)	teske (desk)	
lepotlelo/bottlelo (bottel/ bottle (unit capacity))	testamente (testament)	
lerabele (rebel)	the <b>knikale</b> (technical)	
lesaeboko (sybokhaar, Afr. for mohair)	the <b>knikhone</b> (technikon)	
letamo (dam (of water))	the <b>kniki</b> (technique)	
letena/matena (dinner)	the <b>knolotši</b> (technology)	
letere (letter (of alphabet))	thele <b>kramo</b> (telegram)	
libara (lever (of clutch))	thouste (toast (bread))	
liki (league)	<b>thranse</b> (trance)	
likwitasi (likwidasie, Afr. for liquidation)	<b>threi</b> (tray)	
likwiteišeine (liquidation)	tipifrisi (deep-freeze)	
litani (litanie/ litany)	tolkeiti (tollgate)	
litara (liter)	tom <b>krag</b> a (domkrag, Afr. for jack)	
llaga (lag, Afr. for layer)	traekaspete (tricuspid valve)	
llifi (leave (with pay))	traek <b>lina</b> (dryclean – verb)	
llori/ lori (lorry)	traek <b>linara</b> (drycleaner)	
lokheišene (location)	traenkele (triangle)	
lonteri (laundry (establishment))	traesepe (triceps (muscle))	
lontšhe (lounge)	trafiki (traffic)	
loto (lood, Afr. for lead)	trankhašene (truncation)	
lotšiki (logika/ logic)	<b>Transfala</b> (Transvaal)	
loušene (lotion)	transišene (transition)	
lute (luit, Afr. for lute)	transista (transitor)	
maele (mile)	transleitha (translate)	
maene (mine)	transmitara (transmitter (radio))	
	trapa (trap, Afr. for pedal - verb)	
	trapesiamo (trapezium)	
	trasete (trust (organization))	

<p>mahokane (mahogany)</p> <p>majoro (majoor/ major (office))</p> <p>makarone (macaroni)</p> <p>makasine (magazine)</p> <p>malaria (malaria)</p> <p>malei (malay (person))</p> <p>maletere (letters)</p> <p>mami (mammie/mummy)</p> <p>manala (naels/nails)</p> <p>manifese (manifes/ manifesto)</p> <p>mankanese (manganese)</p> <p>mantšese/metšhese (match-box)</p> <p>marathone (marathon)</p> <p>marionete (marionet/marionette)</p> <p>masaka (sacks)</p> <p>masenke (sink/zinc)</p> <p>mastasilintere (master cylinder)</p> <p>mathematiki (mathematics)</p> <p>matšhe (march - noun)</p> <p>mayosini (miosien/ myosin)</p> <p>mediamo (medium)</p> <p>mediene (median (mus.))</p> <p>mei (mei/ may)</p> <p>mekhuri (mercury)</p> <p>memepe (maps) plural</p> <p>memorantamo (memorandum)</p> <p>menasi (menasie, Afr. for mess)</p> <p>menintšaetisi/menatšaetisi (meningitis)</p> <p>mentlele (medalje, Afr. for plaque)</p> <p>menyu (menu)</p>	<p>traye (try – of rugby)</p> <p>trekesutu (tracksuit)</p> <p>trempe (tram)</p> <p>trigonometri (trigonometry)</p> <p>trinitate (trinity)</p> <p>traepsine (trypsin)</p> <p>tripsine (trypsin)</p> <p>trompeta (trumpet/ trompet, Afr.)</p> <p>trompone (trombone)</p> <p>troposfreê (troposphere)</p> <p>troware (drawer)</p> <p>tšhift (shift)</p> <p>vakhiole (vacuole)</p> <p>vaniša (varnish - verb)</p> <p>vaniši (varnish - noun)</p> <p>ventrikele (ventricle)</p> <p>bentrikele (ventricle)</p> <p>vim (vim)</p> <p>vinika (vinegar)</p> <p>virase (virus)</p> <p>vitamine (vitamin/ vitamine, Afr.)</p> <p>volte (volt)</p> <p>watropo (wardrobe)</p> <p>wikende (week-end)</p> <p>winskrini (windscreen)</p> <p>woltse (waltz)</p> <p>zipi (zip)</p> <p>zoune (zone)</p>	
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<p>merune (maroon)</p> <p>mese (mess)</p> <p>metakhapale (metacarpal)</p> <p>metale (medal)</p> <p>metale (metal)</p> <p>metamofoso (metamorfose/ metamorphosis)</p> <p>metara (meter)</p> <p>metathasale (metatarsal)</p> <p>metonimi (metonymy)</p> <p>milione (million)</p> <p>miliraese/milireise (mielierys/ mealie-rice)</p> <p>minerale (mineral)</p> <p>minimamo (minimum)</p> <p>minimi (minim)</p> <p>minti (mint)</p> <p>minuete (minuet)</p> <p>mišene (mission)</p> <p>misione (mission)</p> <p>mitiore (meteor)</p> <p>mmabole (marble (toy))</p> <p>mmaraka/ mareka (mark)</p> <p>mmasepala/masepala (munisipale/ municipal)</p> <p>mmaseterata (magistrate)</p> <p>mmepe (map) singular</p> <p>mmetse (maths)</p> <p>mmotoro (motorcar)</p> <p>moagiteke (argitek/ architect)</p> <p>moarabia (arabier/arab (person))</p>		
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<p>moatletiki (atleet/ athlete)</p> <p>Mobabilonia (Babylonian – person)</p> <p>mobilaesa (mobiliseer/mobilise)</p> <p>moduleithare (modulator)</p> <p>moentseneare (engineer)</p> <p>mofi (moffie, Afr. for mitten)</p> <p>mofime (morpheme)</p> <p>mofolotši (morphology)</p> <p>mofonesia (phoenician)</p> <p>mohetene (heiden/ heathen)</p> <p>mokhoukhou (cocoa tree)</p> <p>molase (molasses)</p> <p>molekhule (molecule)</p> <p>moliberale (liberal)</p> <p>molikwiteita (liquidator)</p> <p>monithara (monitor)</p> <p>monumente (monument)</p> <p>mopaki (bakker/ baker)</p> <p>mophaene (pine tree)</p> <p>moratoriumo (moratorium)</p> <p>mosaike (mosaic)</p> <p>mothisi (mortise – lock)</p> <p>motšhene (machine)</p> <p>museamo (museum)</p> <p>nabele (nawel/navel – type of orange, fruit)</p> <p>nalete (naald, Afr. for needle)</p> <p>namoneiti (lemonade)</p> <p>namune (lemoen, Afr. for orange, fruit)</p> <p>nebiboluu (navy blue)</p>		
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<p>nekethifi (negatief/ negative)</p> <p>neolotšisimi (neologism)</p> <p>nese (nurse)</p> <p>nicotine (nikotien/nicotine)</p> <p>nikele (nikkel/ nickel)</p> <p>nipole (nippel/nipple – mechanical)</p> <p>nnekese (niks/nix)</p> <p>nnipi (nib)</p> <p>nnipirelifi (relief nib)</p> <p>nofemere (november)</p> <p>nomoro (nommer/ number)</p> <p>noto (noot/ note – in music)</p> <p>nyorone (neuron)</p> <p>obarolo (overall)</p> <p>oben (oven)</p> <p>obo (hobo, Afr. for hautboy)</p> <p>ofisi (office)</p> <p>okane (organ)</p> <p>olefini (olefin)</p> <p>oli (oil)</p> <p>olimphiki/olimpiki (olympic)</p> <p>omselaga (omslag, Afr. for cover, of book)</p> <p>onomatopie (onomatopee/ onomatopoeia)</p> <p>onorobaki (onderbaadjie, Afr. for waistcoat)</p> <p>onoroko (onderrok, Afr. for petticoat)</p> <p>onto (oond, Afr. for furnace)</p>		
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<p>ontshe (ons/ ounce)</p> <p>opareišene (operation – surgical)</p> <p>oratorio (oratorio)</p> <p>oreamo (ureum, Afr. for urea)</p> <p>orikele (aurikel/ auricle)</p> <p>orolosi (horlosie, Afr. for watch – timepiece)</p> <p>otara (order)</p> <p>othometiki (automatic)</p> <p>otomobili (outomobiel/ automobile)</p> <p>outse (oats)</p> <p>pabilione (pavilion)</p> <p>paekhaponete ya sota (bi-carbonate of soda)</p> <p>paesekela (bicycle)</p> <p>paesekopo (bioskoop/ bioscope)</p> <p>pafo (bath – noun)</p> <p>paka (bak/ bake)</p> <p>pakane (baken/ beacon)</p> <p>palamente (parliament)</p> <p>pale (paal, Afr. for pole)</p> <p>palune (balloon)</p> <p>pampara (bumper)</p> <p>pampase (pampas)</p> <p>panana (banana)</p> <p>pane (pan (vessel))</p> <p>panka (bank – financial institution)</p> <p>panka (bank – verb)</p> <p>panka (bank, Afr. for bench)</p> <p>pankoroto (bankrupt)</p>		
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<p>pantetši (bandage)</p> <p>papagai (papegaai, Afr. for parrot)</p> <p>papila (papilla)</p> <p>papirase (papiirus/papyrus)</p> <p>para (bar (tavern))</p> <p>parafene (paraffin)</p> <p>parasimpatu (para-sympathetic)</p> <p>parašutu (parachute)</p> <p>pari (pari, Afr. for par)</p> <p>paritone (bariton/ baritone)</p> <p>parometa (barometer)</p> <p>parone (baron)</p> <p>pasara (basaar/ bazaar)</p> <p>pasari (bursary)</p> <p>Pasifiki (Pacific)</p> <p>pasune (bassoon)</p> <p>pata (pad, Afr. for road)</p> <p>patela (betaal, Afr. for pay – verb)</p> <p>patela (from Afr. payment – noun)</p> <p>payolotši (biology)</p> <p>peile (bail)</p> <p>peke (pik/pick – tool)</p> <p>pekebene (pikkewyn, Afr. for penguin)</p> <p>pelejara (bell jar)</p> <p>pelikene (pelican)</p> <p>pene (pen)</p> <p>peni (pennie/penny)</p> <p>peniseline (penisillien/penicillin)</p> <p>pentšu (banjo)</p> <p>pepere (peper/ pepper)</p>		
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<p>pere (perd, Afr. for horse)</p> <p>perekisi (perske, Afr. for peach)</p> <p>perete (beret)</p> <p>periperi (berrie-berrie/ beri-beri)</p> <p>pesaleme (psalm)</p> <p>petala (pedaal/pedal – music)</p> <p>pete (beet/ beetroot)</p> <p>peteri (battery)</p> <p>petišene (petition - noun)</p> <p>petša (bet – verb)</p> <p>phaelon (pylon)</p> <p>phaelorase (pilorus/pylorus)</p> <p>phaeneapole (pine-apple)</p> <p>phaente (pint)</p> <p>phaephe (pipe – of lead)</p> <p>phaerete (pirate)</p> <p>phala (impala)</p> <p>phanele (paneel/ panel)</p> <p>phaonteng (pounding)</p> <p>pharasaete (parasite)</p> <p>phareiti (parade – of troops, noun)</p> <p>pharenthesese (parenthesis)</p> <p>phasela (parcel – gift)</p> <p>phathi (party)</p> <p>phatšese (passage)</p> <p>phaye (pie)</p> <p>phefume (perfume)</p> <p>phemutheišene (permutation)</p> <p>phenkwine (penguin)</p> <p>phensele (pencil)</p> <p>phenšene (pension)</p>		
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<p>phenthihouse (pantihose)</p> <p>phere (pair)</p> <p>pheriebene (peri-urban)</p> <p>pherote (parrot)</p> <p>phesente/peresente (persent/ percent)</p> <p>phete (pad – for writing)</p> <p>phethinkheše (petty cash)</p> <p>philisi (pil/pill)</p> <p>phiramiti (piramiede/pyramid)</p> <p>phointe (point)</p> <p>pholetšhe (polish)</p> <p>phomete/poromete/poromiti (permit – for livestock)</p> <p>phopho/phouphou (pawpaw)</p> <p>phosithifi (positief/positive)</p> <p>phuting (pudding)</p> <p>pifi (beef)</p> <p>pikiniki (piekniek/ picnic)</p> <p>pikiri (beker, Afr. for mug)</p> <p>pikolo (piccolo)</p> <p>pinko (pink)</p> <p>piring (piering, Afr. for saucer)</p> <p>pitiruti (beetroot)</p> <p>poilara (boiler)</p> <p>poki (bogey)</p> <p>pokobiti (bokwiet/ bucketwheat)</p> <p>polakere (blaker/ candlestick)</p> <p>polane (plan – noun)</p> <p>polantasi (plantation)</p> <p>polantere (planter – for maize)</p>		
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<p>polase/polasa (plaas, Afr. for farm)</p> <p>polatanomoro (nommerplaat/ number plate)</p> <p>polatou (plateau)</p> <p>polause (blouse)</p> <p>poleisara (blazer)</p> <p>poleiti (bord/ plate)</p> <p>polisemi (polysemy)</p> <p>polita (plooi/ pleat – verb)</p> <p>politi (plooi/ pleat – noun)</p> <p>polotiki/ politiki (politic)</p> <p>polousela (blue, from Afr. blousel)</p> <p>pomo (bom/ bomb – noun)</p> <p>pompo (pump)</p> <p>ponto (pound – of currency)</p> <p>poranti/ poranabeine (brandy, from Afr. brandewyn))</p> <p>porasiki (borax)</p> <p>poriki (brake)</p> <p>poraše (brush)</p> <p>porosolo (borsel, Afr. For brush)</p> <p>poroto (board)</p> <p>porotšeke/porotjeke/porojeke (project)</p> <p>poseline (porselein/porcelain)</p> <p>poso (pos/ post)</p> <p>posotara (posorder/postal-order)</p> <p>potase (potas/potash)</p> <p>pothefolio (portfolio)</p> <p>potloto (potlood, Afr. for lead- pencil)</p>		
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<p>pšutere (piouter/pewter)</p> <p>pubise (pubis)</p> <p>puku (boek/ book)</p> <p>putu (boot (motorcar))</p> <p>raba (rubber)</p> <p>rabeseke (arabesk/arabesque – arabian decoration)</p> <p>radiale (radiaal/ radial)</p> <p>radiamo (radium)</p> <p>radietara (radiator)</p> <p>radiolotši (radiologie/ radiology)</p> <p>rae (rye)</p> <p>rafia (raffia)</p> <p>raka (rak, Afr. for shelf)</p> <p>rali (rally)</p> <p>ranta (rand)</p> <p>rantabola (rondawel/rondavel)</p> <p>rapayolotši (biologist)</p> <p>rasiti (receipt)</p> <p>raterapi (therapist)</p> <p>rayone (rayon)</p> <p>rebisi (rabies)</p> <p>rediši (radish)</p> <p>referentamo (referendum)</p> <p>rei (ry, Afr. for row)</p> <p>reise (rys, Afr. for rice)</p> <p>reisisi (reisies, Afr. for race, as in motor racing)</p> <p>rekere (rek, Afr. for elastic – material)</p> <p>rekhota (record – verb)</p>		
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rekhote (record – noun) renke (rank – noun) repetoa (repertoire) resaেকে (recycle) reseboa (reservoir) resefe (reserve (bank)) rešene (ration) resešene (recession) resipi (recipe) rethoriki (rhetoric) rethote (retort – glass tube) ribese (reverse) ribete (rivet) rifi (rif, Afr. for reef) rimi (rim) roboto (robot) rogo (rog, Afr. for rye) roibatere (rooiwater, Afr. for red- water) rokhari (rockery) rolare (roller) rolo (rol/roll – noun) rompase (rhombus) rothara (rotar) rula (ruler) rusa (rust – verb) ruse (rust – noun) saেকে (psyche) saekholotši (psychology) saelose (xylose) saemono (simoom)		
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<p>saepoto (sideboard)</p> <p>saerene (sirene/ siren)</p> <p>saga (saag, Afr. for saw – tool)</p> <p>šaka (shark – animal)</p> <p>sakatuku (sakdoek, Afr. for handkerchief)</p> <p>samente (cement)</p> <p>samomo (samoem, Afr. for simoom)</p> <p>šampheine (champaign)</p> <p>sampoko (sjambok, Afr. for long stiff whip)</p> <p>sampolo (sample)</p> <p>sanitasi (sanitasie, Afr. for sanitation)</p> <p>saniteišene (sanitation)</p> <p>Sathane (Satan)</p> <p>satšhene/satšene/setšene (sergeant)</p> <p>Searabiki (Arabic)</p> <p>sebitšhute (servitude)</p> <p>sefa (sif, Afr. for sieve – verb)</p> <p>sefepi (sweep, Afr. for whip)</p> <p>sefinki (sphinx)</p> <p>sefo (sif, Afr. for sieve – noun)</p> <p>Sefora (French – language)</p> <p>Segerika (Greek – language)</p> <p>Seheberu (Hebrew – language)</p> <p>seile (sale – as in marked down prices)</p> <p>Seitalia (Italian – language)</p> <p>Sejeremane (German – language)</p>		
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<p>sekabi (scurvy – noun)</p> <p>sekala (skaal/ scale – degree of measurement)</p> <p>sekamo/kamo (kam, Afr. for comb – noun)</p> <p>sekeithing (skirting)</p> <p>sekele (sekel/ sickle)</p> <p>sekepe (skip, Afr. for ship)</p> <p>sekerete/sikarete (sigaret/ cigarette)</p> <p>sekero (skêr, Afr. for scissors)</p> <p>seketšhe (sketch)</p> <p>sekhafo (scarf)</p> <p>sekhete (skirt)</p> <p>sekhethe (skirt)</p> <p>sekhouni (conical)</p> <p>sekhulare (sirkulêre/ circular)</p> <p>sekolašiphi (scholarship)</p> <p>sekolo (skool, Afr. for school)</p> <p>sekoloto (skuld, Afr. for debt – noun)</p> <p>sekontšhe (scone)</p> <p>sekoro (score – noun)</p> <p>sekotlelo (skottel, Afr. for dish/ basin)</p> <p>sekurufu (skroef, Afr. for screw – noun)</p> <p>sekuta (scooter)</p> <p>sekwere (square)</p> <p>selai (slice – noun)</p> <p>selara (cellar)</p>		
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<p> sele (cellular phone)  sele (sel/ cell – biology)  selefoune (cell phone)  selei (slay (of murder))  seleiti (slate – for writing)  selere (celery)  selula (cellular)  selulose (sellulose/ cellulose)  semanthiki (semantic)  semitone (semi-tone)  senagoge (sinagoge/synagogue)  senario (scenario)  seneifi (snuif, Afr. for snuff – noun)  seneimese (snymes, Afr. for draw-knife)  sente (sent/ cent)  senthetiki (synthetic – of fluid)  sentimetara (sentimeter/ centimeter)  sepaketi (spaghetti)  sepale (sepal)  sepalete (speld, Afr. safety pin)  sepanere (spanner)  sepeke (spek, Afr. for bacon)  sepelete (speld, Afr. for safety pin)  sepete (spade)  sepetelele (hospital)  sepikiri (spyker, Afr. for nail – noun)  sepinise/sepinese/sepinatšhe (spinach) </p>		
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<p>sepontšhe (sponge – noun)</p> <p>seporo (spoorweg, Afr. for railway line)</p> <p>Sepotokisi (Portuguese – language)</p> <p>seramiki (ceramic)</p> <p>seramo (serum)</p> <p>Serašia (Russian – language)</p> <p>Seroma (Roman – language)</p> <p>sesepe (seep, Afr. for soap)</p> <p>setaele (style)</p> <p>setafo (staff – music)</p> <p>setampa (stampielies/ samp)</p> <p>setase (stasie, Afr. for station)</p> <p>setatamente (statement)</p> <p>setatara (starter)</p> <p>setatšhe (starch – noun)</p> <p>sete (set)</p> <p>seteisele (stysel, Afr. for starch – noun)</p> <p>seteišene (station)</p> <p>seteitši (stage)</p> <p>Setemere (September)</p> <p>setempe (stamp)</p> <p>setena (steen, Afr. for brick)</p> <p>setepe (step – of walk, noun)</p> <p>setepisi (steps – of stairs)</p> <p>setereke (streek, Afr. for region/ district)</p> <p>setikima (stigma)</p> <p>setimorolare (steamroller)</p> <p>setirapo (stirrup)</p>		
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<p>setisitili (distiller)</p> <p>setofo (stove)</p> <p>setoko (stock)</p> <p>setokofele (stokvel/stock-fair)</p> <p>setompo (stomp, Afr. for stump – of tree)</p> <p>setone (stone (14 lb))</p> <p>setopo pejana (stop ahead)</p> <p>setopolaete (stoplight)</p> <p>setšhoo (stew)</p> <p>šetule (schedule)</p> <p>setulwana (stoel/stool – seat)</p> <p>setupu (stoep/porch)</p> <p>sikara (sigaar/ cigar)</p> <p>sikinale (signal – of train)</p> <p>silibere (silwer/ silver)</p> <p>silika (silk)</p> <p>silikate (silikaat/ silicate)</p> <p>siliki (silk)</p> <p>silikosese (silicosis)</p> <p>siling (ceiling)</p> <p>silintara (cylinder)</p> <p>silintere (cylinder)</p> <p>silofone (xylophone)</p> <p>simpale (simbaal/ cymbal)</p> <p>simpiose (simbiose/symbioses)</p> <p>sinki (sink/ zinc)</p> <p>sinkopheišene (syncopation)</p> <p>sintheke (syntax)</p> <p>sirapo (syrup)</p>		
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<p>sirikoniamo (sirkonium/ zirconium)</p> <p>sitere (siter/ cither)</p> <p>sofa (sofa, Afr. for couch)</p> <p>sokisi (sokkie/sock)</p> <p>solotera (solder – verb)</p> <p>solotere (solder – noun)</p> <p>somo (soom, Afr. for seam)</p> <p>sonete (sonnet)</p> <p>Sontaga (Sondag, Afr. for Sunday)</p> <p>sopo (sop, Afr. for soup)</p> <p>sorokisi/serekisi (sirkus/circus)</p> <p>sošetše (sausage)</p> <p>sošialisime (socialism)</p> <p>šothi (shorts – of pants)</p> <p>sotomi (sodomie/sodomy)</p> <p>souso (sous/sauce – relish)</p> <p>sutukheisi (suitcase)</p> <p>swata (swot)</p> <p>Swatseng (Swaziland)</p> <p>swiri (suurlemoen, Afr. for lemon)</p> <p>swirilamune (suurlemoen, Afr. for lemon)</p> <p>taamane (diamant/diamond)</p> <p>tabenakele (tabernakel/tabernacle)</p> <p>tæ (dye – noun)</p> <p>tæke (dike)</p> <p>tæla (dial – telephone, verb)</p> <p>tæle (dial) – telephone, noun)</p> <p>taenasoo (dinosaur)</p> <p>taepitisi (diabetes)</p>		
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<p>taerea (diarree/ diarrheoa)</p> <p>taese (dice – noun)</p> <p>taethoniki (diatonic)</p> <p>tafola (tafel, Afr. for table)</p> <p>tagafara (dagvaar, Afr. for charge)</p> <p>tamatisoso (tamatiesous/ tomato sauce)</p> <p>tamo (dam)</p> <p>tampoti (tambotie/tambootie)</p> <p>tanamaete (dynamite)</p> <p>tanka (tank – noun)</p> <p>tapeiti (tapyt, Afr. for carpet)</p> <p>tarantela (tarantella/tarantelle, Afr. for Wolf spider)</p> <p>tatara (tartar – on teeth)</p> <p>taya (dye – verb)</p> <p>taye (dye – noun)</p> <p>teatere (theatre)</p> <p>tekene (deken, Afr. for type of blanket)</p> <p>telike (delik/ delict)</p> <p>temisemikhweba (demisemiquaver)</p> <p>tente (tent)</p> <p>teologi (teologie/theology)</p> <p>teori (teorie/theory)</p> <p>teraeba (drive - verb/driver - noun)</p> <p>terama (drama)</p> <p>terapi (terapie/ therapy)</p> <p>terata (draad, Afr. for wire)</p> <p>terebe (druuwe, Afr. for grapes)</p>		
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terekere (trekker, Afr. for tractor) terene/setimela (trein/ train) terila (drill – verb, excercise) terili (drill – noun, of military) teromo (drom, Afr. for drum) tesimale (decimal) tetanose (tetanus) thaefune (tifofo/typhoon) thaeifuse (typhus) thaele (tile – noun) thaere (tyre) thaesese (phthisis) thaete (tide) thaetlele (titel/ title) thanele (tunnel) thathariki (tartaric – of acid) theilara (tailor – noun) theipi (tape) thekethe (ticket) thekisi (taxi) thelebišene (television) thelekhominikheišene (telecommunication) thelesekoupo (telescope) theminal (terminal) themometa/temomethara (termometer/thermometer) themperetšha (temperature) thenikoite (tenniquoits) thenipi (turnip) thenisi (tennis)		
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<p>thenthekele (tentacle)</p> <p>thepe (tap)</p> <p>thepentaene (terpentyn/turpentine)</p> <p>thepine (turbine)</p> <p>therei (tray)</p> <p>therese (terrace – noun)</p> <p>thesisi (thesis)</p> <p>thiibii (T.B. – tuberculosis)</p> <p>thitšhere (teacher)</p> <p>thoilete (toilet)</p> <p>thonamente (tournament)</p> <p>tiafise (diafise/ diaphysis)</p> <p>tiki (tickey)</p> <p>tikirii (degree)</p> <p>timi (thyme)</p> <p>tini (tin)</p> <p>tiribola (dribble – as in ball game)</p> <p>tisele (diesel)</p> <p>tisitilo (distillation)</p> <p>tlelaemete (klimaat/climate)</p> <p>tleloupou (globe – of light)</p> <p>toile (doilie/ doily)</p> <p>tokumentari/tokumenthari (documentary)</p> <p>tokumente/ tokomane (document/ dokument)</p> <p>tolara (dollar)</p> <p>toloka (tolk, Afr. for interpret)</p> <p>tonki (donkie/ donkey)</p> <p>toropo (dorp, Afr. for town)</p> <p>tosene (dozen)</p>		
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<p>toulo (towel)</p> <p>tšamo (jam)</p> <p>tšelatine (gelatin)</p> <p>tšenereitara (generator)</p> <p>t-šete (t-shirt)</p> <p>Tšhaena (China)</p> <p>tšhaene (chain)</p> <p>tšhariote (chariot)</p> <p>tšhatša (charge – as of battery)</p> <p>tšhatša (charge – accuse)</p> <p>tšhatše (charge – accusation)</p> <p>tšheka (check – verb)</p> <p>tšhekase (checkers – plastic bag)</p> <p>tšheke (tjek/ cheque)</p> <p>tšheko (check – noun)</p> <p>tšhelete (geld, Afr. for money)</p> <p>tšhelo (tjello/ cello)</p> <p>tšhentšhi (change – money, noun)</p> <p>tšheri (cherry – a girlfriend)</p> <p>tšhese (cheese)</p> <p>tšhesi (chassis)</p> <p>tšhilisi (chillies)</p> <p>tšhimele (chimney)</p> <p>tšhipile (cheap – verb, perfect tense)</p> <p>tšhitene (chitien/ chitin)</p> <p>tšhofa (shove)</p> <p>tšhoko (chalk)</p> <p>tšhokolete (chocolate/ sjokolade)</p> <p>tšhouku (choke)</p> <p>tšhuni (tune)</p>		
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tšipise (gyps(um)/ Afr. gips) tuke (duke) tura (duur, Afr. for expensive) uraniamo (uranium) waena (wind – verb) warante (warrant – noun) waranti (warranty) wata (watt) watšhe (watch – time piece) weithara (waiter) weposaete (website) wetara (weather) wiki (wig) wili (will) wilitšhere (wheelchair) wisiki (whiskey) wokithoki (walky-talky) wulu (wool – of knitting) yamo (yam) yokate (yoghurt) yunaka (eunuch) yunione (union) yuro (euro – of currency) Yuropa (Europe)		
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From the sample presented above, the first column on the left contains fully adapted loanwords that conform to the Northern Sotho basic syllable structure of CV-CV-CV, as well as those that make a syllable on their own (nasals, vowels, l and r). The column on the right contains loanwords with no adaptation at all (exclusively taken as they are from foreign languages).



The focus will be on the middle column, which contains partially adapted words. The parts typed in bold reflect foreign sounds such as in *volte* and *zipi*, as well as syllable structures that do not conform to the Northern Sotho syllable structure such as *atmosfere* for ‘atmosphere’, *aprele* for ‘april’, *planete* for ‘planet’, *kleime* for ‘claim’, and *oksitšene* for ‘oxygen’.

### 4.3 CONCLUSION

This chapter presented data in the form of loanwords. The data was divided in three columns, the first column containing phonologically fully adapted words, the middle column containing words that are partially adapted while the third column on the right comprising of words with no adaptation.

The next chapter will analyse the observations in terms of vowels that are being used to split similar consonant clusters for transliterations to conform to the CV-CV-CV structure. Other points of interest for the analysis will be the vowels that are inserted at the final position of transliterations, the use of aspirated versus unaspirated sounds and extra systemic speech sounds will also be examined.

## CHAPTER 5

### DATA ANALYSIS AND DISCUSSION

#### 5.1 INTRODUCTION

This chapter analyses the data presented in the previous chapter and discusses the main findings. The data comprise a representative sample of more than 2000 loanwords, most of them transliterations. The observed inconsistencies, as indicated in chapter four, and problems arising from inconsistent application are discussed in this chapter. Foreign consonant clusters in Northern Sotho loanwords and their inconsistent patterns which occur particularly in the Northern Sotho Language Board (1988) publication will be analysed. An evaluation will be done on how the observed inconsistencies may have an impact on assessment in schools and programs at institutions of higher learning such as language practice and translation studies.

#### 5.2 ISSUES OBSERVED

##### 5.2.1 Individual speech sounds

The following table presents the speech sounds of Northern Sotho, which will inform the analysis and discussion.

**Table 5.1 Northern Sotho speech sounds**

Vowels		Consonants
Basic	Raised	
a [a]		b [β]
e [e]	[ɛ]	bj [βʒ]
ê [ɛ]	[ɛ]	d [ɽ]
i [i]		f [f]
o [o]	[ɔ]	fs [fs]
ô [ɔ]	[ɔ]	fš [fʃ]

u [u]		g [ɣ] h [h] and [ɦ] hl [t̪] j [ʒ] k [kʰ] kg [kxʰ] kh [kʰ] l [l] m [m] n [n] ng [ŋ] nx [ŋ  ] ny [ɲ] p [pʰ] ph [pʰ] psh [psʰ] pš [pʃʰ] pšh [pʃʰ] r [r] s [s] š [ʃ] t [tʰ] th [tʰ] tl [tʰ] tlh [tʰ] ts [tsʰ] tsh [tsʰ] tš [tʃʰ] tšh [tʃʰ] w [w] y [j]
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Consonants ps [psʰ], my [m̥] and c [t̪] have not been included in the table above as their use is limited to one dialect and word, respectively. They would therefore not affect the orthography of transliterations under discussion in this study.

Northern Sotho has seven (7) basic vowels and four (4) raised ones. The total number is thus 11.

The above individual Northern Sotho speech sounds play a vital role when transliterations are formed. When a speech sound (vowel or consonant) from the source language has an equivalent matching sound in the borrowing language (Northern Sotho) the sound is presented in the same way (speech, leading to orthography). However, when the foreign sound is not available in Northern Sotho, normally Northern Sotho’s closest sound is used.

Table 5.2 below shows a sample of foreign sounds and how they are adapted in the formation of transliterations. The column on the left represents the adaptation of sounds that are available in the Northern Sotho sound system. The right column shows sounds that are foreign to Northern Sotho and how they are approximated.

**Table 5.2: Adaptation of consonants in transliterations**

<b>With Northern Sotho counterparts</b>	<b>Without Northern Sotho counterparts</b>
Sonete (sonnet)	Tesimale ( <b>d</b> ecimal)
Phointe (point)	Sebitšhute (servit <b>u</b> de)
Phanele (panel)	Tisele ( <b>d</b> iesel)
Seile (sale)	Ribete (riv <b>e</b> t)
Yunione (union)	Tikirii ( <b>d</b> egree)

Looking at the examples above in Table 5.2, one may conclude that it is easy to adapt consonants (with Northern Sotho counterparts) that are already available within the borrowing language’s sound system. On the other hand, it is quite challenging to adapt sounds (without Northern Sotho counterparts) that are not available within the borrowing language system. When sounds are not available in the borrowing language, the nearest sound from the borrowing language should be opted for in place of the foreign sound i.e. *sebitšhute* ‘servit**u**de’.

**Table 5.3** below is informed by Table 4.1 in chapter 4 and Table 5.1 above. The table displays foreign consonant clusters that seem to be problematic when Northern Sotho transliterations are formed. There are instances observed where similar consonants or

consonant clusters are presented in Northern Sotho transliterations in different ways such that some would adopt the borrowing language’s syllable structure fully while others adopt it partially, for example *keraf*o ‘**gr**aph’ and *krabole* ‘**gr**avel’ respectively. However, it is not clear why the English consonant cluster **gr** is not adapted in a consistent manner in Northern Sotho loanwords.

The table further analyses Northern Sotho loanwords in terms of their consonant clusters, patterns found per consonant cluster and the inconsistencies that are salient in these patterns when transliterations are made. The data are sampled from Northern Sotho Language Board (1988) and other sources that contain borrowed words. These selected sample of loanwords prove to be problematic when creating transliterations and all the problems that come with adaptation of these words are prominent in the table below.

**Table 5.3: Adaptation of foreign consonant clusters**

<b>Identified consonant clusters in the source language</b>	<b>Words in the source language</b>	<b>Patterns found in Northern Sotho per foreign consonant cluster</b>	<b>Loanwords in Northern Sotho (Northern Sotho Language Board, 1988, and other sources)</b>
<b>bl-</b>	blazer	pol-	<b>poleisara</b>
	block (of ice)	plo-	<b>ploko</b> (ya lehlwa)
	block and tackle		<b>plokenthekele</b>
	blouse		<b>polause</b>
	blue		<b>polousela</b>
<b>br-</b>	brake	por-	<b>poriki</b>
	brandy	pr-	<b>poranti, poranabeine</b>
	brass	bor-	<b>prase</b>
	brood (Afr. for bread)		<b>borotho</b>

	brooch		<b>proutšhe</b>
	brush		<b>poraše</b>
<b>cl-</b>	claim	kl-	<b>kleime</b>
	clarinet		<b>klarinete</b>
	clarion		<b>klarione</b>
	klaskamer (Afr. for classroom)		<b>klasekamore</b>
	climate		<b>klaemete</b>
	clinic		<b>kliniki</b>
	clutch		<b>klatšhe</b>
<b>cr-</b>	crank shaft	kr-	<b>krenke</b>
	crayon	kor-	<b>krayone</b>
	creche		<b>kretšhe</b>
	credit		<b>krediti</b>
	crown		<b>korone</b>
<b>dr-</b>	drama	ter-	<b>terama</b>
	drawer	tr-	<b>troware</b>
	dribble (the ball)	tir-	<b>tiribola</b>
	drill (military) (n)		<b>terili</b>
	drill (of soldiers) (v)		<b>terila</b>
	dryclean (v)		<b>traeklina</b>
	drycleaner (n)		<b>traeklinara</b>
<b>fl-</b>	flannel	fol-	<b>folene</b>
	flannelette	fl-	<b>folenana</b>
	flared (skirt)		<b>folere (sekhethe)</b>
	flat (quarters)		<b>folete</b>
	flax		<b>flakeše</b>

<b>fr-</b>	frame (of picture)	fr-	<b>freime</b>
	France	for-	<b>Fora</b>
<b>gl- [gl]</b>	gladiolus	kl-	<b>klatiolase</b>
	glucose		<b>klukose</b>
	glycogen		<b>klaekotšene</b>
<b>gr- [gr]</b>	graph	kor-	<b>kerrafo</b>
	grade (n)	ker-	<b>kreiti</b>
	gravel	kr-	<b>krabole</b>
	grease (n)		<b>krisi</b>
	grease (v)		<b>krisa</b>
	gross (12 dozen)		<b>koroso</b>
<b>gr- [xr]</b>	Griekeland (Afr. for Greece)	ger-	<b>Gerike</b>
<b>gl- [xl]</b>	glas (Afr. for glass)	gal-	<b>galase</b>
<b>pl-</b>	plagiarism	pl-	<b>plagiarisme</b>
	plan (Afr. for plan) (n)	pol-	<b>polane</b>
	planet		<b>planete</b>
	planetarium		<b>planetariumo</b>
	plantasie (Afr. for plantation)		<b>polantasi</b>
	planter (maize p.)		<b>polantere</b>
	plasma		<b>plasma</b>
	pleister (Afr. for plaster (on wall)) (n)		<b>pleistere</b>
	plastic (adj)		(sa) <b>plastiki</b>

	plastic (n)		<b>plastiki</b>
	plateau		<b>polatou</b>
	platinum		<b>platinamo</b>
	pleat (n)		<b>politi</b>
	pleat (v)		<b>polita</b>
	pleurisy		<b>ploresi</b>
<b>pr-</b>	prairie	pr-	<b>praeri</b>
	president		<b>presidente</b> mo <b>presidente</b>
	primus-stove		<b>praemasetofo</b>
	private		<b>praebete</b>
	profession		<b>profešene</b>
	project (math.) (v)		<b>protšekta</b>
	projectile		<b>projektile</b>
	projection (math.)		<b>protšekto</b>
	projector (of films)		<b>protšekta</b>
	prophet		mo <b>profeta</b>
	prospectus		<b>prospekthase</b>
	protein		<b>proteine</b>
	protestant		mo <b>protestante</b> mo <b>protestanta</b>
	province		<b>profense</b>
	protozoa		<b>protosoa</b>
<b>sc-</b>	scarf	sekh-	<b>sekhafo</b>
	scone	sek-	<b>sekontshe</b>
	score (n)	kor-	<b>sekoro</b>
	score (v)		<b>kora</b>
	scour (v)		<b>koropa</b>



	scurvy (n)		<b>sekabi</b>
<b>sch-</b>	schedule	sk-	<b>sketule</b>
	school	sek-	<b>sekolo</b>
<b>scr-</b>	scrap yard	sekr-	<b>sekrepe</b>
	screw		<b>sekrufi, sekrufu</b>
	scribbler		<b>sekripola</b>
	scroll		<b>sekrolo</b>
<b>sk-</b>	skeleton	sk-	<b>skeletone</b>
	skirt	sekh-	<b>sekhethe</b>
	skaal (Afr. for scale, for weighing)	sek-	<b>sekala</b>
	skêr (Afr. for scissors)		<b>sekero</b>
<b>sl-</b>	slate (for writing)	sel-	<b>seleiti</b>
	slice (n)		<b>selai</b>
<b>sn-</b>	snuif (Afr. for snuff) (n)	sen-	<b>seneifi</b>
<b>sp-</b>	spade	sep-	<b>sepete</b>
	spaghetti	sp-	<b>sepaketi</b>
	spanner		<b>sepanere</b>
	spare wheel		<b>sperebili</b>
	speaker		<b>spikara</b>
	speedometer		<b>spidometara</b>

	spinasië (Afr. for spinach)		<b>sepinasi</b>
	spinach		<b>sepiniše, sepinatšhe</b>
	sponge (n)		<b>sepontšhe</b>
<b>spr-</b>	spring (of metal)	sepr-	<b>sepring</b>
	sprue (disease)		<b>seprui</b>
<b>st-</b>	stadium	st-	<b>stadiamo, stediamo</b>
	staff (mus)	set-	<b>setafo</b>
	stage		<b>seteitsi</b>
	stagflation		<b>setakfleišene</b>
	stamen		<b>stamene</b>
	stamp		<b>setempe</b>
	starch (n)		<b>setatšhe</b>
	starter		<b>setatara</b>
	station		<b>seteišene</b>
	steppe		<b>setepe</b>
	stereophone		<b>stereofoune</b>
	stew (n)		<b>setšhuu</b>
	stigma		<b>setikima</b>
	stirrup		<b>setirapo</b>
	stone (14lb)		<b>setone</b>
	stool (backless seat)		<b>setulwana</b>
	stop ahead		<b>setopo pejana</b>
	stove		<b>setofo</b>
	stomp (Afr. for stump (of tree))		<b>setompo</b>
<b>str-</b>	stratosphere	setr-	<b>setratosfere</b>

	stratus	str-	<b>setratose</b>
	straat (Afr. for street)		<b>setrata</b>
	streptomycin		<b>streptomaesene</b>
	stroke		<b>strouku</b>
<b>tr-</b>	tram	tr-	<b>trempe</b>
	trance	thr-	<b>thranse</b>
	transitor	pr-	<b>transista</b>
	transition (mus.)		<b>transišene</b>
	transmitter (radio)		<b>transmitara</b>
	trapezium		<b>trapesiamo</b>
	tray		<b>threi</b>
	triangle (mus.)		<b>traenkele</b>
	trigonometry		<b>trigonometri</b>
	trinity		<b>trinitate</b>
	trombone		<b>trompone</b>
	troposphere		<b>troposferê</b>
	trompet (Afr. for trumpet)		<b>trompeta</b> <b>prompeta</b>
	trust (organization)		<b>trasete</b>
trypsin		<b>tripsine, traepsine</b>	

The table above analysed consonant clusters in Northern Sotho loanwords which were adapted from foreign words which begin with the following restricted sample of consonant clusters:

*bl-*, *br-*, *cr-*, *dr-* and *fl-*) have two to three patterns each (i.e. *dr-* *dribble-tiribola*, *drill-terili* and *drawer-troware*) which do not follow a consistent pattern when foreign sounds are adapted because loanwords with the same consonant cluster (sound) have different patterns. Only the following five consonant clusters from the Northern Sotho language board (1988) have only one pattern: *cl=kl-*, *scr=sekr-*, *sl=sel-*, *sn=sen-*, and *spr=sepr-* which seems to be the possible consistent patterns which can assist in the reformulation of spelling rules. There are also odd ones like *tr* from *trompet/trumpet* which became *pr* in *prompeta*.

### **5.2.2 Addition of a vowel at the end**

In line with the open syllable structure, and the requirement that words in Northern Sotho end with a vowel, it becomes necessary to add vowels at the end of transliterations. However, it is not clear which vowel is used where. In some cases, one word has different versions due to different vowels added at the end. For example: *apole* versus *apola* for ‘apple’; *peterole* versus *peterolo* for ‘petrol’ and *atlantika* versus *atlantiki* for ‘atlantic’. The choice of a final vowel for the same transliteration is not consistent and this results in the proliferation of spellings for a similar word and a confusion to the language community.

### **5.2.3 The split up of foreign consonant clusters**

During loanword adaptation processes, foreign consonant clusters are split up in a way that conforms to Northern Sotho’s general canonical structure which is consonant-vowel (CV-CV-CV). This also relates to Northern Sotho’s open syllable structure such as in *korone* ‘kroon – Afr. for crown’; *terama* ‘drama’; *folete* ‘flat’; *polane* ‘plan – Afr. for plan’ and *polantasi* ‘plantasie – Afr. for plantation’.

The data presented in chapter four shows loanwords with different adaptation patterns. It comprises the fully adapted words which conform to the language's syllable structure as well as the partially adapted words, in the middle column, that do not conform to the basic syllable structure of Northern Sotho (consonant-vowel (CV-CV-CV)). The focus was placed on both the fully and partially adapted words, to see if the adaptation strategies are applied consistently when the borrowing word-process takes place either from English or Afrikaans into Northern Sotho.

It was found that due to inconsistent application a word can have more than one version, for example *aprele* / *aporele* 'april' and *kredit* / *keredit* 'credit'. However, there are words that have one spelling form such as *setempe* 'stamp', *sekolo* 'skool – Afr. for school' and *sepikiri* 'spyker – Afr. for nail (n)'. The situation causes a lot of confusion and results in an explosion of spelling variations.

The very same situation sketched in the above paragraph, of whether to adapt to the syllable structure and how, is reflected in the spelling of words by users. This is not sustainable, because it leads to a proliferation of spelling variants: this implies that there are at least two possible spellings for most loanwords in which consonant clusters appear. The large number of spelling variations in Northern Sotho results from the available adaptation options. This may be averted by formulating adaptation rules that are clear so that they are easy to apply consistently.

#### **5.2.4 Choice of vowels when foreign consonant clusters split up**

The choice of vowels to be inserted between specific consonants to split the clusters is also not followed consistently. In addition, it is not clear why in some instances vowel *o* is opted for and in other cases vowel *e* is preferred. The following examples illustrate the split using the two vowels: *poleiti* 'plate'; *polase* 'plaas – Afr. for farm (n)'; *polakere* 'plakker – Afr. for sticker' and *seketšhe* 'sketch'; *sekhafo* 'scarf'; *sekhete* 'skirt' and *sekero* 'skêr – Afr. for scissors'.

### 5.2.5 Aspirated versus non-aspirated sounds

Another notable issue in Table 4.1 in chapter four is the inconsistent choice of either aspirated or non-aspirated sounds when Northern Sotho transliterations are formed, that is instances such as *t* vs *th* in *tokumentari* versus *tokumenthari* for ‘documentary’; *p* vs *ph* in *olimpiki* versus *olimpniki* for ‘olympic’; *k* vs *kh* in *komišenare* versus *khomišenare* for ‘commissioner’ and *tš* vs *tšh* in *satšene* versus *satšhene* for ‘sergeant’. This again, results in numerous spelling forms for one word, thereby creating confusion among language users because one would most probably not know which spelling to choose when faced with a word that comes in two options of either an aspirated or non-aspirated sound.

### 5.2.6 Decisions on closely related sounds

Decisions on closely related sounds is another salient issue on the table in chapter four. The choice is not consistent because there is more than one spelling for one word as they appear in different sources, for example *tš* vs *tj* vs *j* as in *protšeke* versus *protjeke* versus *projeke* ‘project’. Because of the increasing number of spellings for the same transliteration language users end up using these options interchangeably since it is not clear which option is the most preferred one.

### 5.2.7 Perception and production of foreign sounds in Northern Sotho loanwords

Loanword adaptations do not take place only in production but also in perception. This perception plays a significant role in loanword adaptations in this way: an individual’s perception of a word (input) from a source language has an influence over how he/she would produce the word (output) in the borrowing language. For example, ‘werk’ (input) – presentation – *bereka* (output); ‘kerk’ (input) – presentation – *kereke* (output) and ‘talk’ (input) – presentation – *toloka* (output). A person from a borrowing language learns more about the processes of a source word through perceiving the pronunciation of the language from his or her own language’s perspective. The more consistent the perception-production relationship is, the easier it will be to standardise the spelling forms.

Looking at the data in chapter four, one has realised the importance of language standardisation as a process of developing a language and making possible important advancements in language study and language practice. Language standardisation involves development of spelling and orthography. This process brings the language community together through following the same spelling rules for the same official language. It also purifies and increases the vocabulary of the language, particularly with the newly introduced technical and technological products which the language did not have before. This process again reduces sociolinguistic complexities within a linguistic system, while increasing its functionality across communicative domains at the same time.

However, there are challenges faced by Northern Sotho standardisation and terminology development. One is that Northern Sotho has a relatively short written tradition and this makes the process of developing the language long and constant. Another challenge is that the spelling rules are vaguely formed and this leads to inconsistent application by language users.

### **5.3 THE STATUS QUO VIS-À-VIS THE THEORY OF ADAPTATION**

As propounded by the correspondence theory, words borrowed from a foreign language undergo changes that are influenced by a perception of an individual or community from a borrowing language. Words are formed well enough to match the phonological, phonetical and morphological structure of the borrowing language through repair strategies such as general phonological processes like segmental and, suprasegmental, changes as well as epenthesis and deletion. For example, *setempe* from ‘stamp’, *sepikiri* from ‘spyker – Afr. for nail (n)’ and *sekolo* from ‘skool – Afr. for school’.

Loanword adaptations do not occur only in production but also in perception and some are phonetically defined more than phonologically. A perception of an individual in loanword adaptations is said not to be faithful. Many individuals from the same borrowing language may have different perspectives towards a similar word from a source language, hence a perception is said to be unfaithful. Different perceptions of a loanword result in numerous spelling variations where a similar word is adapted with various pronunciations and spelling forms resulting from different perceptions.

#### **5.4 CUES FROM CORRESPONDENCE THEORY**

Loanword adaptation is the process of phonetic decoding, meaning foreign sounds are mapped with native sounds that are phonetically closest. Therefore, when Northern Sotho transliterations are made, the closest sounds are used as replacements for foreign sounds, i.e. *fešene* for ‘fash**ion**’. The way in which one perceives a word from a source language influences the way in which one produces it to make sense in one’s own language. An earlier example of the Afrikaans word ‘werk’ (input) becoming Northern Sotho loanword / product *bereka* (output) illustrates this point. One’s perception towards a word from a source language (input) has a strong influence over a product (output). These two words, input and output are compared for faithfulness. Faithfulness is measured by the closeness of the two words (input and output) to each other.

Some theorists believe that perception plays a huge role in establishing input to loanword adaptations while others consider perception to play a limited part. However, the two different schools of thought have one idea in common, that perception is not faithful but there is no evidence applied to show that indeed perception is not accurate. On the other hand, various people may have a different perception of a similar input, and this means their output will be different as well, meaning the faithfulness of a perception to loanword adaptations is controversial.



## **5.5 IMPLICATIONS FOR LANGUAGE USERS**

### **5.5.1 Assessment in schools**

If the issues raised in this study (individual speech sounds, addition of a vowel at the end, the split up of foreign consonant clusters, choice of vowels when foreign consonant clusters are split up, aspirated vs non-aspirated sounds and decisions on closely related sounds) are addressed effectively, it will essentially benefit the language in the sense that foreign consonant clusters will be adapted in the same way consistently. There will not be many spelling options for the same word.

Furthermore, there will be consistency in the choice of final vowels when transliterations are formed. Foreign consonant clusters will be fully adapted to conform to the phonetical and phonological forms of Northern Sotho. Language users will know which vowels to insert when specific foreign consonant clusters are split up. It will also be clear in which instances one should opt for an aspirated or non-aspirated sound as far as transliterations are concerned. Linguists and language practitioners will make informed decisions on closely related sounds, especially when dealing with new loanwords that have not yet been recorded. All decisions made in an attempt to address the issues raised in this study will be informed by clear reformulated spelling rules.

If the issues mentioned above are not attended to then the language will be negatively affected in the sense that for most of the transliterations made there will be more than one spelling for each. The decision on whether a learner wrote a word correctly or not will be chaotic. This will be a direct consequence of unclear Northern Sotho spelling rules which lead to inconsistent use of words by language users. Consequently, there will be a lot of confusion for language users if the raised issues are not addressed and the vocabulary of the language will be full of words with more than one spelling variation each. The situation may be relieved where loanwords have indigenous counterparts, and an original Northern Sotho word may take preference. As Sager (1990) contends, if a loanword is adapted while there is an existing term, it may cause confusion as this would amount to deliberate synonym creation.

In addition, if the challenges highlighted are not fully addressed, there will be more sociolinguistic complexity within the language system and this will decrease its functionality across communicative domains. There will possibly be many different orthographical variations for one word and this will confuse language users both on social and professional levels.

These issues will again negatively affect teaching and learning of the Northern Sotho language in schools as a result of unclear formulated rules. Teachers may find themselves using different spelling options because of the ambiguity that exists in the spelling rules of the language. This may have a negative impact on learners' consistency of spelling choices as they encounter various Northern Sotho language educators in their schooling journey.

Like in schools, facilitators at higher institutions of learning may also have personal spelling preferences from the varieties available. These spelling options may lead to a lot of misperception within the Northern Sotho language community in the sense, that when students complete their studies at higher institutions, they are expected to return to their respective communities and practise the language inconsistencies they have learnt from schools, colleges and universities. As products of different lecturers and institutions, they would not have a reliable foundation when formulating new terms for newly introduced technical and technological concepts, due to the inconsistencies they have been through.

### **5.5.2 Language practice professions**

Translating newly introduced technological and technical words into African languages of South Africa is a huge and challenging task because of the lack of vocabulary in these languages. However, translation of concepts by means of transliterations is a leading and most used strategy by translators in finding suitable translation equivalents for English and Afrikaans words foreign to African languages of South Africa. This is the most preferred way for increasing vocabulary (Gauton et al., 2008).

Looking at the issues highlighted in this study, one would say that it is not easy for language practitioners and linguists to translate documents written in foreign languages (English and Afrikaans, in this case) into Northern Sotho in the sense that the rules for orthography and spelling reflected in Northern Sotho Language Board (2008) are not clear. However, these vaguely formulated rules are used by linguists and language practitioners as guidance for coinage in cases of new concepts such as in the following sample of loanwords taken from the Northern Sotho translated version of the Constitution of the Republic of South Africa (1996): phonologically partially adapted *praebete* ‘private’, *pasporoto* ‘passport’, *repabliki* ‘republic’ and *temokrasi* ‘democracy’; and phonologically fully adapted *palamente* ‘parliament’, *folaga* ‘flag’, *phathi* ‘party’ and *aporele* ‘april’. This is sufficient evidence that there is no consistency as far as the application of the spelling rules in the formation of Northern Sotho loanwords is concerned.

In addition, this shows that the problems facing educators and learners in schools are also confronting translators and linguists because the same issues presented in this study are also prominent in the Northern Sotho translated version of Constitution of the Republic of South Africa, 1996.

## **5.6 CONCLUSION**

This chapter analysed and discussed the main findings from the data presented in the previous chapter. Several issues such as individual speech sounds, addition of final vowel at the end, the split up of foreign consonant clusters, choice of vowels when foreign consonant clusters are split up, aspirated versus non-aspirated sounds and the use of extra systemic speech sounds were highlighted. The main problem to all these issues is the inconsistent application by language users which results from vaguely formulated orthography and spelling rules.

## **CHAPTER 6**

### **CONCLUSIONS**

#### **6.1 INTRODUCTION**

The aim of this chapter is to give a summary of the main findings on standardisation regarding the orthography of transliterations in Northern Sotho. A study of theories of loanword adaptations by researchers such as Smith (2009), Peperkamp and Dupoux (2003) and correspondence theory by McCarthy and Prince (1999) with an application to Northern Sotho transliterations was made. The historical background of languages of Africa, what other scholars say about linguistic borrowing and problems arising from the transliterations in the presented data will also be summarised.

#### **6.2 SYNOPSIS OF THE PRECEDING CHAPTERS**

##### **6.2.1 Historical background of languages of Africa**

This section aimed at giving a background on the languages of Africa, South Africa and Northern Sotho. It was found that these African languages are approximately 2035 in number but it is not static since some languages are being discovered while others are becoming extinct.

These languages are categorized into four large different phyla on the basis of their resemblances and geographical proximity. The greater the proximity, the more they resemble one another. These four phyla comprise of language families within them and Bantu is a language family which belongs to the Niger-Congo phylum, sub-division B in particular. The Bantu language family is a large family of languages spoken in sub-Saharan Africa. This family contains all the official African languages of the Republic of South Africa, including Northern Sotho.

## **6.2.2 Linguistic borrowing**

Chapter two of this study aimed at reviewing the previous literature on linguistic borrowing and to learn what other scholars say about borrowing globally, nationally and in Northern Sotho specifically. Here it was found that linguistic borrowing is defined in different ways by different scholars across the world. However, the scholars share the opinion that contacts between people of various cultures and languages give rise to language shifts and borrowings (Louwrens, 1993; Wildsmith-Cromarty, 2008; Mafela, 2010 & Anwar, 2017). Some linguists prefer to create new words rather than borrowing in a bid to avoid language shift. However, linguistic borrowing remains unavoidable because it supplements the vocabulary of the borrowing languages. In order for languages to survive, they need to add to their vocabulary through borrowing.

## **6.2.3 Theoretical framework and research methods**

Chapter three discussed two theories, namely correspondence theory and the theory of loanword adaptations. The two theories were chosen because of their suitability regarding adaptation and resultant spelling of Northern Sotho transliterations. The aim was to find solutions as far as the creation of Northern Sotho loanwords was concerned. It was found in these theories that perception of an individual plays a significant role and has a huge influence on words borrowed from a foreign language. This means, the way in which one perceives a word from a foreign language influences how one would produce the word in the borrowing language. Regarding correspondence theory, the original word from a foreign language is mapped with the product (loanword of a borrowing language) for faithfulness.

This chapter also intended to introduce the research methodology employed for this study, namely the qualitative research method.

#### **6.2.4 Data presentation**

Data was presented in chapter four. The data was presented in a table format and divided into three columns with the first one containing phonologically fully adapted words, the middle one containing words that are partially adapted while the third and the last column on the right comprised of words with no adaptation.

#### **6.2.5 Data analysis**

The aim of chapter five was to analyse and discuss the findings from the collected data. Inconsistencies were picked up in terms of vowels that are being used to split similar consonant clusters for transliterations to conform to the CV-CV-CV syllable structure. Other points of interest for analysis such as vowels that are inserted at the final position of transliterations, the use of aspirated versus non-aspirated sounds and extra systemic speech sounds were also scrutinised. It was found that loanword adaptation in Northern Sotho follows a variety of strategies for different words.

### **6.3 RECOMMENDATIONS**

#### **6.3.1 Individual speech sounds**

Similar sounds should be presented in the same way in loanwords.

#### **6.3.2 Addition of vowels at the end**

Like in individual speech sound situations, the choice of a vowel to be added at the end position of a word should also be consistent to avoid confusion and deliberate creation of unnecessary synonyms. There should not be more than one option of final vowels for a single transliteration.

### **6.3.3 Syllables and choice of vowels when foreign consonant clusters are split up**

The splitting up of consonant clusters to bring about acceptable syllables should be consistent; there should not be options of whether to adapt a word fully or partially. Also, the choice of vowels to be inserted between specific consonant clusters must be applied firmly and consistently. It should also be clear why some specific vowels are preferred to split up foreign consonant clusters over others.

### **6.3.4 Aspirated versus non-aspirated sounds**

The spelling rules should guide language practitioners and linguists when confronted with the choice of whether to adapt a word with the aspirated or non-aspirated sound. The spelling rule should be clear as to when one must opt for an aspirated or non-aspirated sound as far as the coining of new words is concerned.

### **6.3.5 Extra systemic speech sounds**

Decisions made on closely related sounds should also be informed by sound spelling rules. It cannot be based on idiosyncratic or personal preferences where individuals could choose whatever option they like, or feel is the correct spelling to be opted for. Feelings and personal interests should be put aside when these kinds of decisions are made.

All the issues raised above are caused by the same problem of inconsistent application. There is a challenge of options in all of the issues raised. In order to address these challenge, the language should be standardised constantly to match the newly introduced terms. Linguistically sound spelling rules must be clearly reformulated to enable language users to make correct and well-informed choices when confronted with words which do not appear in the authorised terminology list. Before these processes can take place, all stakeholders including language practitioners, language teachers and linguists must be involved in all the processes.

## **6.4 CONCLUSION**

This chapter summarised the main findings on standardisation regarding the orthography of Northern Sotho transliterations. The historical background of languages of Africa, South Africa and Northern Sotho, linguistic borrowing, applied theories of correspondence and loanword adaptations, research methods, the data presented and analysed were also summarised in this section.



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