## THE JUSTIFICATION OF THE EXISTENCE OF AN INTERFIX IN SESOTHO

 $\mathbf{BY}$ 

#### RELEBOHILE MALOI (201502229)

# A THESIS SUBMITTED AS A PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN AFRICAN LANGUAGES AND LINGUISTICS

**AT** 

# THE NATIONAL UNIVERSITY OF LESOTHO IN THE DEPARTMENT OF AFRICAN LANGUAGES AND LITERATURES

SUPERVISORS: DR. L. MATLOSA 2021/2022

#### **DECLARATION**

I, the undersigned, hereby declare that THE JUSTIFICATION OF THE EXISTENCE OF AN INTERFIX IN SESOTHO, is my original work and has not previously been submitted at any university for the degree, in its entirety or in part. All the sources that I have cited have been indicated and acknowledged by means of complete references.

Signature	Date

### CERTIFICATION

This	thesis	has	been	approved	and	accep	ted as	s a	partial	fulfilment	of	the
requi	rements	s for	the de	gree of M	aster	of Art	s in La	angı	ages ar	nd Linguisti	ics.	
Sup	ervisor											
•••••	••••••	• • • • •	• • • • • • •	••••••	••		•••••	••••	• • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • •	
Sign	ed						Date					
Exte	rnal Ex	ami	ner									
•••••	•••••	• • • • •	•••••	••••••	•••		•••••	••••	•••••	• • • • • • • • • • • • • • • • • • • •	••••	
Sign	ed						Date					

#### ACKNOWLEDGMENTS

I sincerely wish to pass my gratitude and appreciation to various people who contributed in different ways towards the success of this thesis.

First and foremost, I honour and praise God the Almighty, for the gift of life. He gave me strength, courage and persistence to overcome every challenge I came across during this strenuous journey. Thank you Lord to have given me a mother that I did not even get a chance to know. *Rest in peace and pray for me mother*.

I **owe** the success of this work to my supervisor, Dr. Litšepiso Matlosa, who sacrificed her time and energy in assisting and guiding me enthusiastically and whole-heartedly, with her constructive comments, suggestions and social support. Words are not enough to thank you 'm'e.

My sincere gratitude also goes to Mrs. 'Masehloho 'Matjotjo for her tireless parental support and guidance that kept me going up to this far. Words fail me to express my bounteous thankfulness to her, for inspiring and encouraging me through thick and thin. She has played a motherly role in my personal and family life at large. Thank you *Sebata- Lekolokotoane la 'Makob'asiea* for the financial, physical, emotional and spiritual support you offered me throughout this journey. Had it not been for your encouragement and wisdom, I could have not completed it, I could have died of stress, a long time ago. You were the pillar of my strength when I needed a shoulder to cry on. May God bless you abundantly, in all your endeavours. *Ha e sisetse ba bang bohle tau*.

How can I forget to pass my gratitude to all my lecturers in the Department of African Languages and Literature, whose comments and suggestions helped me in the development of this thesis? I wish to thank you so much for showing a parental love and care for me when I needed your help.

To my husband **Bafokeng Edward Motenalapi** and my only child and beloved son, **Abuti Khauhelo Motenalapi**, whom I denied love, care and company, in pursuit of this work. I say to you 'Big boy, I thank God for a son like you who made me laugh and gave me purpose to pursue my dream of acquiring my MA degree'. Thank you my husband for your financial support throughout my academic journey, it was not easy but you made it possible **Phoka**. **Molimo a u atlehise mererong eohle ea hau, a u fe hape le hape Mofokeng. A mpolokele lona le tl'o bona tse ratoang ke lipelo tsa lona Bafokeng baka**.

Loads of thanks also go to my sister, Motšelisi Maloi, who has played the role of a mother during this journey. Thank you sister. My last gratitude goes to my father, wherever he may be I thank you a lot for everything **Letebele**.

### TABLE OF CONTENTS

Topic	Page
Declaration	i
Certification	ii
Acknowledgements	iii
Table of contents	iv
Abstract	ix
CHAPTER 1: Introduction	1
1.1 Background	1
1.2 Statement of the problem	1
1.3 Research objectives	2
1.3.1 Research questions	2
1.3.2 Hypotheses	2
1.4 The Purpose of the Study	3
1.5 The Review of the Related Literature	3
1.5.1 Affixation	3

1.5.2 Compounding	5
1.5.2.1 Nouns	6
1.5.2.2 Verbs	6
1.5.2.2.1 Intransitive Verbs.	7
1.5.2.2.2 Transitive verbs.	7
1.5.2.3 Description of verbs in terms of syllables	8
1.6 Theoretical Framework	9
1.6.1 The Item-and-Process Model	10
1.7 Methodology	11
1.7.1 Research Approach	11
1.7.2 Data Collection.	12
1.7.3 Sample and Sampling.	12
1.8 Significance of the study	13
1.9 Delimitations of the Study	13
1.10 Organisation of the study	13
CHAPTER 2: Types of Sesotho Compound Words	14
2. 0 Introduction	14
2.1 Compound words in Sesotho	14
2.1.1 Sesotho compound noun	15
2.2 Types of compound nouns	15
2.2.1 Compound nouns made up of nouns	16
2.2.1.1 Basic nouns	16

2.2.1.2 Compound nouns made up of derived and basic nouns	16
2.2.1.3 Compound nouns made up of nouns and qualificatives	17
2.2.1.3.1 Compound nouns made up of a noun and adjective	17
2.2.1.3.2 Compound nouns made up of a noun and a possessive	17
2.2.1.3.3 Compound nouns made up of a noun and a quantitative	18
2.2.1.4 Compound nouns made up of a noun and an adverb	18
2. 3 Sesotho Compound verbs	18
2.3.1 Verbs Classified according to number of syllable	19
2.3.1.1 Mono-syllabic verbs.	19
2.3.1.2 Di-syllabic Verbs	19
2.3.1.3 Tri-syllabic Verbs.	20
2.3.1.4 Multi-syllabic Verbs.	20
2.3.2 Reduplicated verbs.	21
Conclusion	23
CHAPTER 3: The Justification of the Existence of an Interfix in S	Sesotho
3.0 Introduction.	24
3.1 The existence of an interfix in Sesotho	24
3.1.1 An Interfix and Sesotho Compound Nouns	25
3.1.1.1 Compound nouns made up of nouns and nouns	25
3.1.1.2 Compound nouns made up of nouns and qualificatives	27
3.1.1.2.1 Compound nouns made up of a noun and an adjective	27
3.1.1.2.2 Compound nouns made up of a noun and possessive	29

3.1.1.2.3 Compound nouns made up of a noun and quantitative	3
3.1.1.3 Compound nouns made up of a noun and an adverb	33
3.1.2 Interfix and verbs.	35
3.1.2.1 Interfix and reduplicated di-syllabic verbs	36
3.1.2.2 An interfix and reduplicated mono-syllabic verbs	36
3.2 The reasons why /-e-/ qualifies as an interfix	37
Conclusion	38
CHAPTER 4: The Type of a morpheme an Interfix /-e-/ is	39
4.0 Introduction.	39
4.1 Definition of Morphology	39
4.2 Types of Morphemes in Sesotho	
4.2.1 Free Morphemes in Sesotho	41
4.2.1.1 Lexical Morphemes	41
4.2.1.2 Functional Morphemes	42
4.3 Bound Morphemes in Sesotho	43
4.3.1 Derivational Morphemes	43
4.4 Inflectional Morphemes in Sesotho.	43
4.4.1 The element /-e-/ as an Inflectional Morpheme in Sesotho	44
Conclusion.	46
CHAPTER 5: THE GENERAL CONCLUSIONS	47

5.1 Introduction.	47
5.2 An Overview of the Previous Chapters	47

#### **ABSTRACT**

Although studies have been carried out on affixation is Sesotho, none of them deals with interfixation. Interfixation is one of the morphological word-formation processes, which, like other affixations have the ability to either generate new words with different meanings and grammatical categories or new word forms (rather than new words).

The aim of this study was to justify the existence of interfix in Sesotho compound words prove that it exists in-between the two lexemes that form these compound words. In order to achieve this, both compound nouns and compound verbs were analysed. The findings of the study revealed that of the two types of the compound words found in Sesotho, interfix is not accommodated in compound nouns. This is because in the formation of compound nouns, some elements are dropped instead of being inserted. The study further established that in the formation of compound words made up of reduplicated monosyllabic verbs, an insertion of the morpheme /-e-/ is obligatory. Without this insertion, the compounded verb is unacceptable.

The fact that this /-e-/ is inserted in-between the two vowels indicates that it has the characteristics of an interfix. Additionally, the fact that in the absence of the morpheme /-e-/ the compounded mono-syllabic verb becomes unacceptable is an indication that such arrangement violates the principles of the Item and Arrangement (IA) theory which is concerned with the proper arrangement of morphemes in words.

Additionally, the findings revealed that the insertion of the morpheme /-e-/ does not change the meaning of the verb in question or its grammatical category. All that this interfix does is to indicate tense and that an action takes place in small quantities or slowly. On the basis of these findings, the study concludes that the proposed interfix /-e-/ is an inflectional morpheme. Finally, the study established that this morpheme cannot be meaningful on its own. It has to be attached to the base for it to reflect meaning. Therefore, the study concludes that the interfix /-e-/ is a bound inflectional morpheme.

Key Words: interfix, mono-syllabic verbs, morpheme, agglutinative languages, compounding, interfixation, reduplication.

#### **CHAPTER ONE**

#### 1.1 Background

According to Napoli (1996), one fact about human language is that, it is dynamic and is always changing. For Napoli, linguistic changes may occur at the lexical, phrasal or structural levels of a language. This study focuses on the lexical level of language because it deals with lexemes which are words. Napoli further clarifies that, a word can change its structure and meaning in order to accommodate new concepts and ideas. Asuoha (2018) affirms this by stating that there is another very productive means by which languages grow, and this is through a word-formation process called affixation. Like any other agglutinative language, Sesotho also makes use of various word-formation for its development. These include compounding, clipping, acronymy, blending, reduplication, coinage, borrowing and affixation

On one hand, affixation is defined by Osuagwu and Nwozuzu (2007:1) as a "morphological process in which bound-morphemes are attached to a root or stem, to mark changes in meaning, part of speech or grammatical relationships". On the other hand, an affix refers to a morpheme that is attached to a word stem to form a new word or word-form. Osuagwu and Nwozuzu (2007) identify six types of affixes, namely; prefix, suffix, infix, circumfix, superfix (or suprafix) and an interfix.

#### 1.2 The Statement of the Problem

In Sesotho, studies that have been carried out on word-formation processes have been on prefixation, suffixation and infixation. The researcher is not aware of any study undertaken to explore interfixation. Based on Asuoha's (2018)

definition of an interfix, the study argues that it exists in Sesotho and that it is found in compound words made up of reduplicated mono-syllabic verbs. Currently, an interfix has been studied in two Bantu languages, which are Igbo and Ghwede. It is against this background that the study intends to justify the existence of an interfix in Sesotho. It also aims to determine what type of a morpheme the proposed interfix is.

#### 1.3 Research objectives

The main objectives of this study are to:

- a. Outline the types of compound words that are found in Sesotho.
- b. Justify the existence of an interfix in the compound words made up of reduplicated mono-syllabic verbs.
- c. Establish whether the proposed interfix is a derivational or an inflectional morpheme.

#### 1.3.1 Research questions

In order to achieve the above objectives, this study addressed the following questions:

- a. Which types of compound words exist in Sesotho?
- b. How can the existence of an interfix in Sesotho be justified?
- c. Is the proposed interfix a derivational or inflectional morpheme?

#### 1.3.2 Hypotheses

a. It is hypothesized that Sesotho has compound nouns and compound verbs.

- b. It is hypothesized that the /-e-/ that appears in-between the reduplicated mono-syllabic verbs is an interfix because its insertion produces acceptable compound verbs.
- c. It is hypothesized that the proposed interfix is an inflectional morpheme since it does not change the grammatical category of the verbs within which it is inserted.

#### 1.4 The Purpose of the Study

In light of the statement of the problem and questions raised 1.4 above, this study intends to justify the existence of an interfix in Sesotho reduplicated mono-syllabic verbs. The study further intends to examine the type of an affix the proposed interfix is.

#### 1.5 The Review of the Related Literature

This section reviews literature related to the research interest of this study which is mainly the morphological processes and their operations in word formation.

#### 1.5.1 Affixation

According to Ndimele (1999), one way of generating new words from the existing ones is through the process of affixation. He describes an affixation as a morphological process of attaching an affix to the root or base (the unit to which an affix is attached) of the word. He further points out that affixes are classified based on the position where they occur relative to the root of the word or the function which they perform when attached to the word. Based on this distinction, at least six affixes are identified. These are the prefix, suffix, infix, circumfix, infix and interfix.

Miller (2001) views a prefix as an affix which is attached at the beginning of a word, while a suffix refers to an affix that is attached at the end of a word. For

example, in the Sesotho word *lipenenyana* 'a few pens', the prefix is /li-/ since it is an affix that appears at the beginning of the word *pene* 'pen' and the suffix is -nyana 'a few' because it appears at the end of the word *lipene* "pens". The process of attaching an affix at the beginning or initial position of a word is called prefixation while the attachment of an affix at the end or final position of the word is referred to as suffixation. As indicated by Ndimele (1999), another type of an affix is circumfix. As defined by Uri (2005), a circumfix is an affix which has two parts. One part is placed or prefixed at the beginning of a word, while the other one is placed or suffixed at the end of the word. For example, in an English adjective **untouchable**, the circumfix is **unable** which is made up of the prefix /un-/ and the suffix /-able/. In this word, the morpheme /un-/ is the prefix which appears at the beginning of the verb touch, and the morpheme /-able/ is a suffix that appears at the end of the same verb. Both affixes are attached to the same word and together they form a circumfix. This type of affixation could not be found in Sesotho.

Additionally, Ndimele (1999) mentions an infix as another type of an affix. Katamba (1993) who regard an infix as an affix that is inserted within or into the root, the stem or the base. For instance, in the Tagalog (a languages spoken by the majority of the Phillipies) as an infix /-in-/ may be inserted in the word *sulat* 'letter' to derive the new word *sinulat* 'wrote'. The process of inserting an affix inside a word is called infixation. There is a distinction between an infix and an interfix. Unlike an interfix which occurs inside a word, an interfix is inserted in-between two words that have equal status Asuoha (2018). A good example is an English word 'strip-a-gram'. In this word, the interfix /-a-/ has been inserted between two nouns, meaning they are words with equal status. This definition is crucial for this study as it aims to determine whether or not an interfix exists in Sesotho and if so, in which type of words does it occur.

#### 1.5.2 Compounding

In addition to affixation, Guma (1981), Doke and Mofokeng (1974) mention compounding as another process of word formation. They define compounding as a process of joining two or more words to form a new one. Fakoye (2004) adds that compounding takes place when two or more free forms (words) combine to form a meaningful unit. Adams (2003) further elaborates that compounding is a morphological operation in which two lexical items that have separate meanings are combined together to form one word with entirely different meaning.

Guma (1981) makes a distinction between the two types of compound nouns, namely; the endocentric and exocentric compounds. For him, exocentric compounds refer to those compounds whose central meaning is not conveyed by the head. That is, the meaning of the whole compound is external to the literal meaning of the compound words that have been conjoined. This type of compound words denotes a construction which has no explicit head to which the real meaning refers. An example of exocentric compound in Sesotho can be:

#### **1.** a) *Lehlaba-phieo* 'double crosser'

The above compound noun means a different thing outside the meanings of the nouns that make them. The exocentric compound noun *lehlaba-phieo* 'a double crosser' means a person who betrays one's trust and this noun bears the different meanings from that of the two words *lehlaba* 'the piercer' and *phieo* 'kidney' that make it.

Apart from exocentric compounds, there are endocentric compounds in Sesotho. As discussed in chapter one, Muller, Agbedo and Spencer (2015) define endocentric compounds as those compounds whose central meaning is carried by the headword of the compound. To clarify further on this, Aronoff and Fundeman (2011) explain that, this headword expresses the core meaning of the compound and determines the lexical category of the compound as a whole. An example of an endocentric compound in Sesotho is *pelo-nolo* 'soft-hearted', whose central meaning is carried by the first word *pelo* 'heart'. In other words, *nolo* 'soft' describes the noun *pelo* 'heart' which is the headword in this compound. These definitions are relevant for the study as they assist in determining the type of compounds in which the proposed interfix exists. In Sesotho, compound words can be made up of either nouns or verbs.

#### 1.5.2.1 Nouns

A noun is a word that is used to name a person, place, a thing or an idea. Nouns are classified into different types. These include proper nouns, abstract nouns and compound nouns. Proper nouns are described by Adger (2019) as those nouns which name a particular person, place and a thing. For instance, in Sesotho, *Maseru* (capital city) is a proper noun because it is a name of a place. Unlike proper nouns, abstract nouns name an idea, a feeling, a quality or a characteristic (Beason, 2005). In Sesotho, the word *matla* 'strength' denotes character. As far as compound nouns are concerned, they are a product of compounding which has been mentioned in the previous paragraph. Compound nouns are discussed further in the next chapter as the study aims to determine whether or not interfix exists in these types of compound words.

#### 1.5.2.2 Verbs

Sue and Winchell (2005) define a verb as a word used to describe an action, state or occurrence. It forms the main part of the predicate in a sentence. There are different types of verbs in Sesotho. Syntactically, verbs are described as either being transitive or intransitive

#### 1.5.2.2.1 Intransitive Verbs

Sue and Winchell (2005) point out that unlike the transitive verbs, the intransitive verbs are those verbs which are in the active voice. This definition draws support from Sue and Winchell (2005) who assert that intransitive verbs express an action but do not take an object. In their view, this type of verbs express a complete thought without an object. Further, they clarify that an intransitive verb can, however, be followed by an adverb or other modifier. An example of intransitive verb in Sesotho is *matha* 'run'. This verb can be used in a sentence without a verb as in *Kea matha* 'I run'. The same verb can be followed by an adverb in a sentence as in *Ke matha haholo* 'I run a lot.

#### 1.5.2.2.2 Transitive verbs

Unlike intransitive verbs, Sue and Winchell (2005) define transitive verbs as the verbs which express an action that terminates in, or is received by an object. They point out that the object of transitive verb can be a noun, pronoun or noun clause or phrase. An example of a Sesotho transitive verb is *lahla* 'throw'. This verb requires to be followed by an object. For instance, it would be unacceptable to say \**Ke lahla* 'I throw' instead of *Ke lahla lejoe* 'I throw a stone'. The second sentence is acceptable because the verb *lahla* 'throw' is

followed by an object *lejoe* 'stone'. The only time that the verb *lahla* can be used without an object is when it is used as an imperative sentence. That sentence will be 'Lahla! 'Throw'!

#### 1.5.2.3 Description of verbs in terms of syllables

In Sesotho, verbs can also be classified according to the number of syllables they are made up of. A syllable is defined by Kenneth (2003) as a unit of pronunciation. In Sesotho, this unit of pronunciation is represented by a vowel, a lateral /l/ and nasal sounds. This is to say that in Sesotho, all vowels, all nasal sounds and the lateral /l/ are syllabic. For instance, the Sesotho word *fa* 'give' would not be pronounced meaningfully without the vowel /-a/. In the word lla 'cry', which is made up of two syllables, the first syllable /l/ cannot be substituted by any other consonant. If this happens, the derived word will be unacceptable in Sesotho. Similarly, in the word *motseng* 'in the village', the velar nasal /n/ (orthographically written as /ng/) cannot be replaced by an ordinary consonant. This confirms the fact that only vowels, nasals and the lateral /l/ are syllabic in Sesotho.

Based on the criterion of the number of syllables, Guma (1981), identifies four types of verbs in Sesotho. These are the mono-syllabic, the di-syllabic, the trisyllabic and the multi-syllabic verbs. In the formation of verbs, some of these syllables are reduplicated. For instance, the word *shoa* 'die' is a mono-syllabic verb while *bana* 'children' is di-syllabic because it is made up of the syllables /ba-/ and /-na/. Similarly, the verb *tsamaea* 'walk' is tri-syllabic since it is made up of the syllables /tsa-/, /-ma-/ and /-ea/. Finally, the verb *hlahlathela* 'go astray' is an example of a multi-syllabic verb since it is composed of more than three syllables which are /hla-/, /-hla-/, /-the-/ and /-la/.

In the formation of Sesotho verbs, some of these syllables are reduplicated. According to McCarthy and Alan (1995), reduplication refers to a word-formation process which involves copying some part of a base (a segment, syllable or a morpheme) or an entire word. This means that in reduplication process, a part or the whole word is repeated. In linguistics this copied part is referred to as a reduplicant. In the situation where part of the word is repeated, this is referred to as partial reduplication. But in the case where the whole word is repeated, this is described as a full reduplication (McDonald, 1967 and Sneddon, 1996). Partial reduplication is mostly seen in the first part of the word, while full reduplication occurs on the entire word. Consider the examples below:

- 2. a) tan-tantša 'dance a little'
  - b) fie-fiela 'sweep a little'
  - c) bapa-bapala 'play a little'

The above verbs (which are examples of tri-syllabic verbs) have undergone partial reduplication process. As mentioned earlier, partial reduplication is mostly seen in the first part of the word. In the above examples, the first two syllables of each word has been repeated. In 2 (a) *tan*- has been duplicated, in 2 (b) *fie*- has been duplicated, while in 2 (c) it is *bapa*- which has been reduplicated.

#### 1.6 Theoretical Framework

Theoretical framework is described by Swanson (2013) as the structure that can hold or support a theory of a research study. Swanson further clarifies that

theoretical framework introduces and describes the theory that explains why the research problem under the study exists. According to Abend (2008), theories are formulated to explain, predict and understand the phenomena, and in many cases to challenge and extend existing knowledge within the limits of critical bounding assumptions.

#### 1.6.1 The Item-and-Process Model

Since the current study addresses morphological issues, it employs morphological theory. According to Maxwell (1998: 1), morphological theory refers to "a theory in which the morphological rules are brought together within a single framework." Hockett (1954) points out that, theories of morphology can be classified as Item-and-Arrangement (IA) and Item and Process (IP) theories. He explains that IA (morpheme-based morphology) differs from IP in that, under IA, both existing roots and affixes are treated as morphemes. He further clarifies that IA deals with words which have identifiable morphemes.

Contrary to IA, Bonnet (2008) describes IP theory (which was coined by Hockett in 1954) as a lexeme-based morphology in which a word is built through an operation or process. This operation is referred to as a Word Formation Rule because it applies to the roots. Anderson (1992) clarifies that as a process-based approach, IP naturally accommodates affixation. From Bonnet's (2008) point of view, the main focus of this theory is the analysis of data on word-formation processes, involving prefixes, suffixes and interfixes. Matthews (1998) adds that this model deals with analysis of inflections (the process of word-formation in which a word is modified to express different grammatical categories such as tense, voice, aspect, person, gender and mood).

IP is adopted in this study because it acknowledges that words are formed through processes and that these processes may bring about different words or express grammatical categories. The current study analyses the morphological processes that take place when compound words are formed in Sesotho. It also argues that the insertion of an interfix in-between reduplicated mono-syllabic compound verbs in Sesotho is obligatory since it makes these words acceptable.

#### 1.7 Methodology

According to Korter (1994), methodology refers to a system of broad principles or rules from which specific methods or procedures may be derived to interpret or solve different problems within the scope of a particular discipline. In his view, methodology describes the actions to be taken in investigating a research problem and techniques used to identify, select, and analyse the information applied in order to understand the problem. In other words, methodology allows the reader to critically evaluate a study's overall validity. It also gives an overview of steps and methods used in the collection of data.

#### 1.7.1 Research Approach

Generally, research uses either quantitative or qualitative approach. On the one hand, Defranzo (2020) at <a href="https://www.snapsurveys.com">https://www.snapsurveys.com</a>, describes quantitative as the approach that is used to quantify the problem by way of generating numerical data or data that can be transformed into usable statistics. For him, quantitative research uses measurable data to formulate facts and uncover patterns. Selebeli (2020:15-16) explains that unlike qualitative approach, quantitative approach "enquires about if and how a person knows something, and how that knowledge can be translated into a numeric value". On the other hand, Rakotsoane (2012) and Lewis (2012) describe qualitative approach as an

approach which involves collecting and analyzing non-numerical data, in order to understand concepts, opinions or experiences. That is, it analyses texts. This is supported by Katamba and Stonham (2006) who view qualitative approach as a subjective approach whose basic element of analysis is words. The study adopts qualitative approach as it focuses on the analysis of compound words in Sesotho in order to determine the existence of an interfix.

#### 1.7.2 Data Collection

The study uses desktop research to collect data. According to Travis (2016), desktop research refers to a secondary research approach which is used for critically evaluating and analyzing secondary data and existing literature. For this study, data is collected from the books and the journals that are found in the Thomas Mofolo library, at the National University of Lesotho (NUL) and on the internet. The researcher read the books and the journals and identified Sesotho compound words with focus on the reduplicated mono-syllabic verbs. The words were jotted down in the notebook and compiled as data for the current study.

#### 1.7.3 Sample and Sampling

Alabi (2003) defines sample as a number of people or things taken from a larger group and used in tests to provide information about the group. For him, sampling has two methods, which are probability and non-probability sampling. He defines probability sampling method as involving random selection, which allows the researcher to make statistical inferences about the whole group, while non-probability sampling method involves non-random selection. In support of this view, Taherdoost (2016) adds that non-probability sampling is a sample in

which the selection is based on factors other than random chance such as convenience, experience or the judgment of the researcher.

The study uses non-probability method. In particular, the study employs purposive sampling technique. According to (Creswell & Clark 2011), purposive sampling refers to the selection of a sample based on the knowledge of a population. Saunders (2012: 56), points out that, purposive sampling is a non-probability sampling method which occurs when elements that are selected for the sample are chosen by the judgment of the researcher. Based on these definitions, the study used purposive sampling because during the desk research, it enabled the researcher to pick only the words which she assumed they might have an interfix.

#### 1.8 Significance of the study

Firstly, it is anticipated that this study will be a source and reference for students who are interested in the study of linguistics, especially in the area of morphology. Secondly, it is hoped that the findings of this study will help the future linguistic researchers improve their knowledge on affixes especially in Sesotho. Finally, it is hoped the study will assist the researcher in undertaking more about the interfix in Sesotho.

#### 1.9 Delimitations of the Study

This study is geared towards investigating the existence of an interfix in Sesotho compound words made up of nouns and verbs.

#### 1.10 Organisation of the study

This study is organised into five chapters. **Chapter one** provides the background and introduces the study. It states the research objectives, questions, hypotheses and the significance of the study. It reviews the literature and further explains the theoretical framework and methodology that the study has adopted. It also clarifies the delimitation of the study and its organization. **Chapter two** outlines the types of compound words which exist in Sesotho. **Chapter three** discusses the existence of an interfix in the Sesotho reduplicated mono-syllabic verbs. **Chapter four** determines whether the proposed interfix in Sesotho is a derivational or an inflectional morpheme. **Chapter five**, which is the last chapter, provides the general findings and summary of the study and conclusion.

#### **CHAPTER TWO**

#### **Types of Sesotho Compound Words**

#### 2. 0 Introduction

The previous chapter is an introduction to the study, which provides the background to the study, the statement of the problem, the review of the related literature, the aim of the study, along with the methodology and theory to be adopted in this study. The current chapter presents and discusses the different types of compound words as the study argues that an interfix is found in them.

#### 2.1 Compound words in Sesotho

According to Sergio and Vogel (2010), compound words refer to the words which consist of more than one stem. Norquist (2020) defines a stem as a form of a word before any inflectional affixes are added. An example of a stem in Sesotho can be *bapala* 'play'. Nagpal (2020) further clarifies that, compound words are formed when two or more words are joined together to create a new word, that has an entirely new meaning. This means that, the newly formed compound word bears the different meaning from the meanings of its

component words. An example of a compound word in Sesotho can be *lehlaba-phieo* 'double crosser' (which means a person who betrays one's trust). The above compound word means a different thing outside the meaning of the nouns that make it. That is, the compound word *lehlaba-phieo* 'double crosser' is made up of the words *lehlaba* 'a piecer' and *phieo* 'kidney', which both bear different meanings from that of a compound noun *lehlaba-phieo* 'double crosser'.

It should be noted that normally, when people talk about the compound words, they talk about the compound nouns only, but this study argues that in Sesotho, compound words can be categorized into compound nouns and compound verbs (which are made up of the reduplicated verbs). An example of the Sesotho compound verb can be *ja-e-ja* 'eat a little'.

#### 2.1.1 Sesotho compound nouns

Delahunty and Garvey (2010) define compound nouns as the nouns which are composed of more than one free morpheme which are nouns. They view a free morpheme as the smallest meaningful part of a word which has a grammatical function. An example of a noun which is a free morpheme in Sesotho can be *khomo* 'cow', which can function meaningfully on its own, yet indivisible into other morphemes.

Kortmann (2005) points out that the meaning of the whole compound is often different from the meanings of the two words on their own. To support Kortmann (2005)'s opinion, Guma (1981) states that in Sesotho, the meaning of the compound noun is carried by the first word of the compound. An example of Sesotho compound noun can be *thaba-telle* "tall mountain". Based on Guma (1981)'s point of view, this compound noun is made up of a noun *thaba* 

'mountain', and an adjectival qualificative stem *telle* 'highest', and the central meaning of this noun is contained in the first word *thaba* 'mountain'.

#### 2.2 Types of compound nouns

Doke and Mofokeng (1957 a) acknowledges the existence of compound nouns in Sesotho. Guma (1971 a) refers to these nouns as complex nouns. However, they all agree that these nouns are made complex by the fact that they are made up nouns (both basic and derived) and other parts of speech. These parts of speech include nouns and qualificatives.

#### 2.2.1 Compound nouns made up of nouns

As already mentioned, compound nouns may be formed by combining different types of nouns.

#### **2.2.1.1 Basic nouns**

According to Oxford Dictionary (2021) a basic noun is a noun used to identify any of a class of people, places or things, or to name a particular one of these. This means that basic nouns are those nouns that are not derived from other parts of speech. Doke and Mofokeng (1957 b) give an example of the word *kolobe-moru* 'wild pig'. This compound noun is made up of two words, *kolobe* 'pig' which is a class 9 noun and *moru* 'forest' that is a class 3 noun. Another example is *nonyana-tšepe* 'airplane'. This compound noun is made up of a noun *nonyana* 'bird' and the noun *tšepe* metal both of which belong to class 9.

#### 2.2.1.2 Compound nouns made up of derived and basic nouns

As mentioned earlier, some nouns that form compound nouns are derived from other lexical categories such as verbs. An example is a word 'mesa-mohloane 'an observer'. The word 'mesa is a noun derived from the verb besa 'burns'. So 'mesa as a noun means 'the person who burns' and the whole word refers to the person who burns a small locust called mohloane. Another example is molula-setulo 'chairperson'. In this compound word, the first noun which is molula 'sitter' is derived from the verb lula 'sit'. Therefore, the literal translation of molula-setulo is a person who sits on a chair.

#### 2.2.1.3 Compound nouns made up of nouns and qualificatives

Some compound nouns are made up of nouns and qualificatives. This fact is discussed in the subsections that follow:

#### 2.2.1.3.1 Compound nouns made up of a noun and an adjective

The words *mahlo-mafubelu* 'red eyes', *pelo-nolo* 'soft heart' and *majoana-mabeli* 'two small stones' are examples of compound nouns made up of nouns and adjective stems. In Sesotho, a distinction is made among the adjectives that indicate colour, the adjectives that indicate number and those that refer to 'character' which Doke and Mofokeng (1957 c) and Guma (1971 b) refer to as common adjectives. *Mahlo-mafubeli* refers to the eyes that are red. *Pelo-nolo* refers to a heart that is soft while *majoana-mabeli* refers to stones that are two in number.

#### 2.2.1.3.2 Compound nouns made up of a noun and a possessive

In Sesotho, compound nouns can also be formed with a noun and a possessive qualificative. The words *moren'a- thaba* 'chief of the mountain', *ngoan'a - mahana-a-joetsoa* 'the child who refuses to listen' and *kob'a- bohali* 'blanket of the in-laws' exemplify such construction. Before they became compound nouns, these words were *morena oa thaba* 'chief of the mountain, *ngoana oa mahana a joetsoa* the child who refuses to listen' and *kobo ea bohali* 'blanket of the inlaw'. In these examples, the nouns *morena*, *ngoana* and *kobo* are followed by the possessives *oa thaba*, *oa mahana a joetsoa* and *ea bohali*, respectively.

#### 2.2.1.3.3 Compound nouns made up of a noun and a quantitative

A few compound nouns in Sesotho are made up of a noun and a quantitative. In such nouns, quantitative *tsohle* 'all' is attached to the nouns that are being qualified. For instance, in the compound nouns *makhona-tsohle* 'magnesium permanganate', *malumela-tsohle* 'easy goer' and mathula-hohle 'one who goes everywhere' to *makhona*, *malumela* and *mathula* (which are nouns) the quantitatives *tsohle* and *hohle* have been attached.

#### 2.2.1.4 Compound nouns made up of a noun and an adverb

Sesotho compound nouns are also made up of nouns and adverbs. According to Huddleston (2005), an adverb is a word or an expression that modifies a verb, an adjective and another adverb in terms of place, manner and time. The word senonela-malapeng 'someone who gets fat by visiting other people's homes' which means 'a greedy person' comprises the noun senonela 'someone who gets fat' and the adverb of place malapeng 'other people's homes'. In the same

manner, the word *Thaba-bosiu* 'the mountain at night' is made up of the noun *thaba* 'mountain' and the adverb of time *bosiu* 'night'.

#### 2. 3 Sesotho Compound verbs

As mentioned earlier, another way of forming compound words in Sesotho is by reduplicating verbs. Nagpal (2020) defines a compound verb as a verb that consists of more than one verb. This means that, a compound verb is made up of two or more verbs. As defined by Sue and Winchell (2005 a) in the previous chapter, a verb refers to a word used to describe an action, state or occurrence.

#### 2.3.1 Verbs Classified according to number of syllables

On the other hand, phonologically, they can be classified in terms of the number of syllables they are made of. In Sesotho there are verbs that are mono-syllabic, di-syllabic, tri-syllabic and multi-syllabic.

#### 2.3.1.1 Mono-syllabic verbs

According to Winchell (2005 b), a mono-syllabic verb is a verb which has only one syllable. The following words serve to exemplify:

- **3.** a) *Shoa* 'die'
  - b) oa 'fall'
  - c) khoa 'leave'

The above examples are mono-syllabic verbs because they are made up of only one syllable each.

#### 2.3.1.2 Di-syllabic Verbs

As mentioned in the previous chapter, disyllabic verbs are those verbs that are made up of only two syllables (Nadarajan, 2006). The examples of disyllabic verbs in Sesotho are given bellow:

- **4.** a) bina 'sing'.
  - b) lula 'sit'
  - c) ngola 'write'

The above examples are disyllabic verbs because they have two syllables. In example 4 a), the first syllable from the verb *bina* 'sing' is /-*bi*-/while the second one is /-*na*-/. In the verb *lula* 'sit' in 4 b) above, the first syllable is /-*lu*-/ and the second one is /-*la*-/. From the verb *ngola* 'write', the first syllable is /-ngo-/ while the last one is /-*la*-/.

#### 2.3.1.3 Tri-syllabic Verbs

Nadarajan (2006) defines a tri-syllabic verb as a verb which has more than two syllables. Consider the examples below:

- 5. a) bapala 'play'
  - b) tsamaea 'walk'
  - c) nyamela 'disappear'

The above mentioned verbs are tri-syllabic verbs because they have three syllables. The verb *bapala* 'play' in 5 a), has three syllables whereby the first syllable is /-ba-/, the second one is /-pa-/ and the last syllable is /-la-/. Similarly, in the verb *tsamaea* 'walk' in 5 b), the first syllable is *-tsa-*/, the second one is /-ma-/ while the last one is /-ea-/. In the verb *nyamela* 'disappear'

in 5 c), the first syllable is /-nya-/while the second one is /-me-/ and the last syllable is /-la-/.

#### 2.3.1.4 Multi-syllabic Verbs

Multisyllabic verbs are defined by Nadarajan (2006) as those verbs that have more than three syllables. Consider the examples below:

- **6.** a) Kokomala 'sit'
  - b) potoloha 'go around'
  - c) komakoma 'nag'

The above examples are multisyllabic verbs because they have more than three syllables. The verb *kokomala* 'sit' in 6 a), has four syllables; the first syllable is /-ko-/, the second one is /-ko-/ while the third syllable is /-ma-/. The last syllable in this verb is /-la-/. In 6 b), the verb *potoloha* 'go around' has four syllables whereby the first syllable is /*po-*/, the second one is /-to-/ while the third one is /-lo-/. The last syllable in the verb *potoloha* 'go around' is /-ha/. Similarly, in 6 c), the verb *komakoma* 'nag' has four syllables. The first syllable in this verb is /-ko-/ while the second one is /-ma-/. The third syllable in this verb is /-ko-/ and the last one is /-ma-/.

#### 2.3.2 Reduplicated verbs

According to McCarthy and Alan (1995), reduplication refers to a word-formation process which involves copying some part of a base (a segment, syllable or a morpheme) or an entire word. This means that in reduplication process, a part or the whole word is repeated. In linguistics this copied part is

referred to as a reduplicant. In the situation where part of the word is repeated, this is referred to as partial reduplication. But in the case where the whole word is repeated, this is described as a full reduplication (McDonald, 1967 and Sneddon, 1996). Partial reduplication is mostly seen in the first part of the word, while full reduplication occurs on the entire word. Consider the examples below:

- 7. a) tan-tantša 'dance a little'
  - b) fie-fiela 'sweep a little'
  - c) bapa-bapala 'play a little'

The above verbs (which are examples of tri-syllabic verbs) have undergone partial reduplication process. As mentioned earlier, partial reduplication is mostly seen in the first part of the word. In the above examples, the first two syllables of each word has been repeated. In 7 (a) *tan*- has been duplicated, in 7 (b) *fie*- has been duplicated, while in 7 (c) it is *bapa*- which has been reduplicated.

Data reveals that di-syllabic verbs undergo full reduplications applies. Consider the examples below.

- **8**. a) bina-bina 'sing a little'
  - b) tšoara-tšoara 'hold a little'
  - c) lula-lula 'sit a little'

As demonstrated above, all the entire verbs have been repeated entirely. In 8 (a) *bina* has been repeated, in 8 (b) *tšoara* has been repeated while in 8 (c), *lula* has been reduplicated.

It is not only the di-syllabic verbs that are capable of fully-reduplicating, but also the mono-syllabic ones. This is demonstrated by the examples below:

- **9**. a) *ja-e-ja* 'eat-eat'
  - b) fa-e-fa 'give-give'
  - c) kha-e-kha 'pluck-pluck'

As in the case of di-syllabic verbs, in the examples above, the mono-syllabic verbs *ja* 'eat', *fa* 'give' and *kha* 'pluck' have been fully reduplicated.

#### **Conclusion**

The aim of this chapter was to establish the types of compound words that exist in Sesotho. It identified two types, namely; the compound nouns and compound verbs. The chapter observed that compound nouns are made up of a nouns and other parts of speech including other nouns, qualificatives and adverbs. As far as verbs are concerned, the study established that in Sesotho verbs can either transitive or intransitive. Additionally, the study observed that verbs may be classified on the basis of the number of syllables they are made of. On the basis of this criterion, the study identified four types of verbs. These are the monosyllabic, di-syllabic syllabic, tri-syllabic and multi-syllabic syllables. Of these verbs, both the mono-syllabic and di-syllabic may be fully reduplicated. The tri-syllabic and the multi-syllabic verbs can only be partly reduplicated.

### **CHAPTER THREE**

### The Justification of the Existence of an Interfix in Sesotho

### 3.0 Introduction

The previous chapter discussed compound words in Sesotho which include both the compound nouns and compound verbs. It has also indicated that in Sesotho, compound words are made up by combining different lexical categories. The present chapter discusses an interfix, which the study argues that in Sesotho, it exists in reduplicated verb compound words. The tree structures are used to illustrate the position that the proposed interfix /-e-/ occupies within these verbs.

### 3.1 The existence of an interfix in Sesotho

According to Koali (2020), just like in any other agglutinative languages, new words in Sesotho are formed through the word-formation processes such as affixation, coinage, reduplication, clipping, acronymy, compounding and many others. She points out that, the affixation word-formation process is attained by attachment of affixes to morphemes such as the root, stem or base. As mentioned earlier, these affixes are a prefix, an infix and a suffix which are attached in three positions (initial, medial and final) of the root, stem or a base. This sub-section justifies the existence of an interfix in Sesotho. It also analyses its morphological function and the place of its attachment on the lexical items.

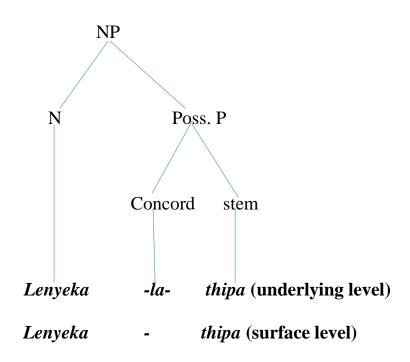
Katamba (2004) defines an interfix as an empty morph that is inserted between two morphemes in the process of word-formation. As defined by Nordquist (2019), a morph is a word segment that represents one morpheme (a smallest meaningful unit of language). An example of a morph in Sesotho can be /-li-/ as in linku 'sheep'. The morph /-li-/ in this word is a prefix which shows plurality of the nku 'sheep'. To support Katamba (2004)'s definition of an interfix, Bauer (1988) adds that an interfix is an affix or a linking element that is placed in between two other different morphemes, and does not have a semantic meaning on its own. Bauer further clarifies that, unlike other affixes such as prefixes (attached at the beginning of the word) or suffixes (attached at the end of the word), an interfix is inserted between two different morphemes. This means that, an interfix is a type of an affix which is inserted in between two separate words to create a new meaningful word. An example of an interfix in English can be 'beatabug' where the morpheme /-a-/ is attached in between the words beat and bug.

## 3.1.1 An Interfix and Sesotho Compound Nouns

This section is meant to determine whether or not interfixation is applicable in compound nouns.

# 3.1.1.1 Compound nouns made up of nouns and nouns

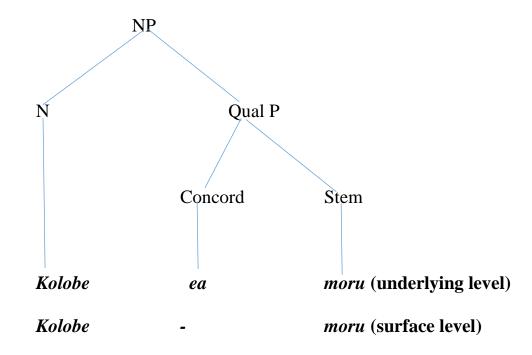
It was mentioned in the previous chapter that Sesotho compound nouns are made up of different grammatical categories. According to Sesotho grammarians, compound nouns can be made up of a noun and another noun. In this case, the two nouns are just joined together and in written form this is indicated by a hyphen (-). One such noun can be *lenyeka-thipa* 'one who licks a knife' whose figurative meaning is 'a very poor person'. This noun is made up of the nouns *lenyeka* 'one who licks' and *thipa* 'knife'. On the tree structure the compound noun *lenyeka-thipa* is presented as follows:



As it can be observed, in the case of the compound noun *lenyeka-thipa* 'one who licks a knife' this word is the same at both underlying and surface levels.

Both Doke and Mofokeng (1957:103) and Guma (1971:) identify *kolobe-moru* 'pig forest' whose literal meaning is 'a wild pig' or 'a pig of forest' as another example of a compound noun made up of two nouns. Unlike in the case of *lenyeka-thipa* whereby the translations 'one who licks' and 'knife' make a sensible noun, in the case of *kolobe-moru*, the translation 'pig' and 'forest' do not constitute a sensible noun. But if the preposition 'of' is inserted between pig and forest, then a sensible noun 'pig of forest' is created.

The study argues that the unacceptability of the combination of pig and forest without 'of' suggests that in the underlying (deep) structure this preposition existed. This means that originally, (that is before the formation of the compound) *kolobe-moru*, the underlying structure was a noun followed by a possessive qualificative. The same sentiment is shared by Doke and Mofokeng (1957:103) when they explain that probably *kolobe-moru* has been derived from the contraction of the original possessive *ea moru* 'of forest'. Based on this information, the compound word *kolobe-moru* is analysed as shown below.



The example of kolobe-moru above is a clear indication that not all compound nouns that are said to be made up of a noun and a noun are actually like that.

## 3.1.1.2 Compound nouns made up of nouns and qualificatives

As it has already been pointed out that in Sesotho compound nouns can be formed with a noun followed by a qualificative. But during the formation of these compound nouns both the noun and the qualificative in question are altered. These alterations differ according to individual parts of speech involved.

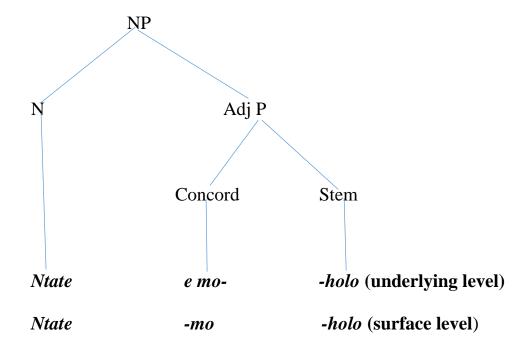
### 3.1.1.2.1 Compound nouns made up of a noun and an adjective

Another qualificative that is involved in the formation of compound nouns in Sesotho is an adjective. In Doke and Mofokeng's (1957), an adjective is a type of a qualificative that qualifies a noun in terms of physical appearance, colour and number. Consider the examples below:

- **10.** (a) Ntate e moholo o fihlile. 'A big father has arrived'.
  - (b) Khohlo e ntšo e kotsi. 'A black gorge is dangerous'.
  - (c) Bana ba bang ba lapile. 'Other children are hungry'.

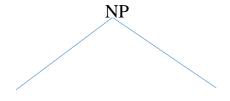
In 10 (a) *e moholo* 'a big' is an adjective that describes the noun *ntate* 'father' in terms of his physical appearance. This adjective is made up of the concord *e mo*- and the stem *-holo*. In 10 (b) *e ntšo* 'a black' qualifies *khohlo* 'gorge' in terms of colour' and it comprises the concord *e n*- and the stem *-tšo*. Similarly, in 10 (c), *ba bang* 'other' qualifies the noun *bana* 'children'. It is formed by the concord *ba ba*- and the stem *-ng*. Although it said that *ba bang* qualifies bana in terms of number, but as the translation clearly indicates, *ba bang* does not specify any number, instead it just refers to 'other'.

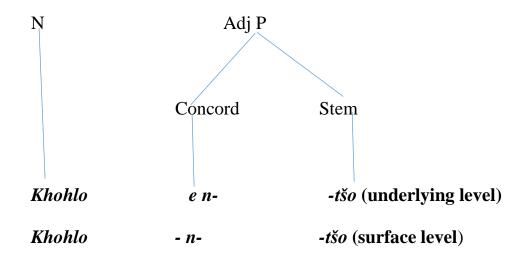
Of the three examples of qualificatives, only the first two examples can be used in the formation of compound nouns and they become *ntate-moholo* 'big father' and *khohlo-ntšo*, respectively. Consider the tree structures below.



The above structure makes a distinction between the underlying level and the surface level of the compound noun *ntate-moholo*. The structure illustrates that in the underlying level, the noun *ntate* is qualified by a complete adjective *e moholo*. But during the formation of the new word which is now a compound noun, the first syllable of the adjective concord e is deleted. It should also be noted that in the underlying level *ntate e moholo* refers to a big father. But once it is in the form of the compound word, the meaning changes to 'an old man.'

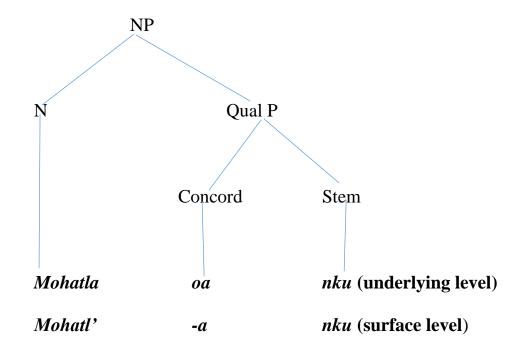
Similarly, when *khohlo e ntšo* in changed into a compound now, the first part of the adjectival concord is dropped and the meaning changes from a 'black gorge' to a 'dark gorge'. The structure of this compound noun is presented below.





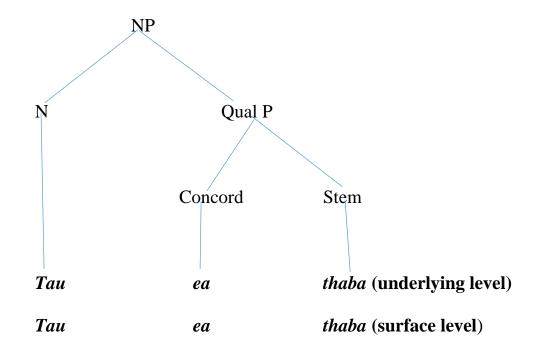
# 3.1.1.2.2 Compound nouns made up of a noun and possessive

It was indicated in the example *kolobe-moru* 'pig of forest' that compound nouns may be formed with a noun followed by a possessive qualificative. However, as shown in the said example, in the formation process, it is only the prefix *ea* that has been affected in the sense that it has been dropped. The same cannot be said with the compound word mohatl'a nku 'tail of sheep'. Consider the structure below.



According to the above structure, before the word *mohatla oa nku* was converted into a compound noun, it was made up of the noun *mohatla* 'tail' and the possessive qualificative *oa nku* 'of sheep'. In the formation of the compound noun, however, some elements have been eliminated from both the noun and the qualificative. From the noun, the vowel in the ultimate syllable which is /-a/has been omitted and it has been substituted by the apostrophe. The use of an apostrophe fits Crystal's (2015) description in which he considers it as a punctuation mark that is used to indicate an omission of letters (speech sounds) in a word or phrase. From the qualificative in question, the first vowel in the concord which is /o-/ has also been omitted, and the remaining /-a/ is pronounced as if it is part of the noun *mohatla*. The mentioned omissions have resulted in the new word *mohatl'a nku* 'tail of sheep'.

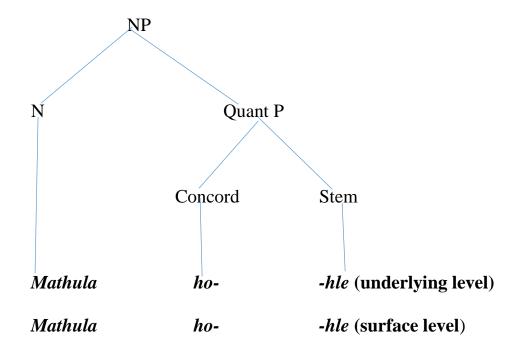
Data further reveals that there are instances whereby the compound noun consisting of a noun and a possessive could remain the same at both underlying and surface levels. The example of the compound word *tau-ea-thaba* 'lion of the mountain' below exemplify this.



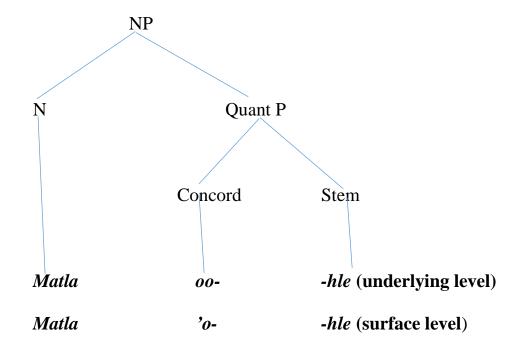
As it has already been mentioned, in the above structure, no alteration has been made in the surface structure of the compound word *tau-ea-thaba* 'lion of the mountain'.

# 3.1.1.2.3 Compound nouns made up of a noun and quantitative

In addition to the qualificatives already mentioned, in Sesotho, compound nous are also formed by combining the noun and a quantitative. This can be exemplified by the word *mathula-hohle* 'one who goes everywhere'. This formation is illustrated below.



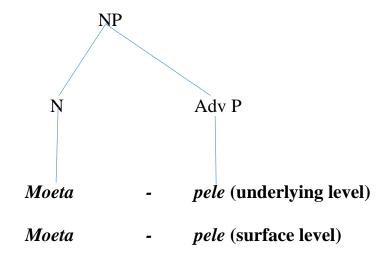
Contrary to what happens with the other qualificatives, in the case of whereby a compound noun is made up of a noun and a quantitative, what happens in the underlying level in not different with the situation I the surface level. That is why the compound noun *mathula-hohle* 'one who goes everywhere' (which is a class 1 noun) is the same at the underlying level and surface level. The same situation obtains even when the nouns that are used belong to other classes. A slight difference is observed in the case of class 6 nouns as in the compound noun *matla* 'ohle 'all the power' as illustrated below.



Basically, in this structure the above compound noun is the same at both levels. However, as it can be seen, in the written form (orthography) which is the surface level, the first /o-/ of the concord has been replaced by the apostrophe. The argument that is usually given is that this concord is written this way for class 6 nouns to differentiate it from the concord of the class 3 nouns which is also written as oo-. Class 3 is a class for singular nouns such as motse 'village' and molamu 'stick'. But class 6 generally accommodates the nouns which are the plural forms of class 5. Examples include masaka 'kraals' which is the plural form for lesaka 'kraal'. However, class 6 also accommodates nouns such as matla 'strength' which do not have the singular forms.

## 3.1.1.3 Compound nouns made up of a noun and an adverb

Apart from nouns and qualificatives, in Sesotho, nouns can also be combined with adverbs to form compound nouns. For instance, the word *moeta-pele* 'leader', is a compound noun made up of the noun *moeta* 'one who leads' and the adverb of place *pele* 'forward'. The formation of this compound is illustrated below.



The above presentation, illustrates that just like in the case where two nouns are combined to from a compound word, even in the case where nouns and adverbs are involved, the compound noun remains the same at both the underlying and the surface levels.

As mentioned earlier, this section was meant to establish whether or not in Sesotho interfixation occurs in compound nouns. This was done bearing in mind that interfixation is a process that involves inserting an interfix between words. Data presented in this section has indicated that in Sesotho when compound nouns are formed, two situations obtain. Firstly, nouns can be combined with other lexical nouns without any alteration. This is seen where compound nouns are made up with a noun and another noun as it is the case in the compound noun *lenyeka-thipa* 'one who licks a knife'.

Similarly, the same happens when a noun is combined with a relative as it happens in the compound noun *moeta-pele* 'one who leads'. Additionally, in some instances, when a noun is combined with some possessives, the derived compound noun remains the same at both underling and surface levels. This was revealed by the compound noun *tau-ea-thaba* 'lion of the mountain'. It is argued that in the situations mentioned above, if there had been some alterations, the formed words would have been unacceptable. For instance, if *ea* 'of' in the word *tau-ea-thaba* 'lion of the mountain' is deleted, the produced compound noun would have been meaningless. The reason is that this could have violated the IA principle of proper arrangements of morphemes in words.

Secondly, in the formation of compound nouns, some elements of the words involved, are dropped. This is evident in the case where the compound now is made up of a noun and qualificatives. In the formation of a compound noun comprising a noun and a possessive qualificative, some elements of are dropped at surface level. For instance, as it was explained earlier, in the formation of the compound noun *mohatl'a nku* 'tail of sheep', the last vowel in *mohatla* and the

first vowel in the concord *oa* have been dropped. Similarly, when a compound noun is formed with a noun followed by an adjective, the first vowel in the adjectival concord is dropped. This is indicated in the example *ntate-moholo* 'a big father' which becomes from *ntate e moholo*. In the derived form, the vowel /e-/ which is part of the concord /e mo-/ has been omitted. Unlike in the previous instance where it was wrong to delete some elements, in this instance their omission is necessary based on the tenants of IA for ease of pronunciation.

The fact that in Sesotho, in the formation of compound nouns, some elements are dropped contradicts what happens in the process of interfixation. In the process of interfixation, an element (which the study regards as an interfix) is inserted between words of the same status. On the basis of the analysed data, the study argues that interfixation is not applicable in Sesotho compound nouns. Instead, it exists in reduplicated mono-syllabic compound verbs.

### 3.1.2 Interfix and verbs.

It was mentioned in the previous chapter that in Sesotho, verbs are classified on the basis of the number of syllables that they are made up of. Based on this classification, Sesotho has four types of verbs. These are the mono-syllabic verbs, di-syllabic verbs, tri-syllabic verbs and multi-syllabic verbs. As indicated in the previous chapter, all these verbs can either be partially or fully reduplicated. Verbs which have three or more syllables undergo partial reduplication, while both the mono-syllabic and the di-syllabic ones are fully reduplicated.

# 3.1.2.1 Interfix and reduplicated di-syllabic verbs

It was mentioned in the introduction chapter that this study intends to justify the existence of interfix in the Sesotho compound verbs made up of reduplicated mono-syllabic verbs. Although both and monosyllabic di-syllabic verbs can be

reduplicated fully, data revealed that the latter do not accommodate an interfix in the formation of these compound verbs. Consider the sentences below.

- **11.** (a) Ke ntse ke hlapa-hlapa matsoho. 'I am wash-washing hands'
  - (b) \*Ke ntse ke hlapa-e-hlapa matsoho. \*'I am wash-it-washing hands'

In 11 (a), the verb *hlapa* 'wash' has been reduplicated to derive the compound verb *hlapa-hlapa* 'wash-wash' which is an acceptable verb in Sesotho. However, in 11 (b) inside the di-syllabic verb *hlapa-hlapa* 'wash-wash' an /e/ has been inserted, thus ignoring IA principles and resulting in an unacceptable sentence. This is a clear indication that in Sesotho it is ungrammatical to insert an element between di-syllabic verbs when forming a compound verb.

## 3.1.2.2 An interfix and reduplicated mono-syllabic verbs

Unlike in the case of di-syllabic reduplicated verbs which do not accept the insertion of an interfix, data revealed that actually in the formation of compound verbs with reduplicated mono-syllabic verbs, an insertion of an element between the verbs is mandatory. In the absence of this element, the created compound verb becomes unacceptable in Sesotho as demonstrated below:

- **12.** (a) \**Nkhono o na nts'a ja-ja bohobe*. 'Grandmother was eat-eat bread'
  - (b) *Nkhono o na nts'a ja-e-ja bohobe*. 'Grandmother was eat-eat bread'

In 12 (a) the compound verb *ja-ja* lacks the element -e- and this has rendered the whole sentence unacceptable. However, in 12 (b) this element has been inserted and the sentence is acceptable. The study argues that this mandatory element should be regarded as an interfix. This element is the same in all the instances it occurs as an interfix.

# 3.2 The reasons why /-e-/ qualifies as an interfix

Firstly, based on Adam's (2003) definition of an interfix which states that it is an empty morph which is inserted between two morphemes to create one word, the study argues that the vowel /-e-/ which appears between the Sesotho reduplicated mono-syllabic verbs is an interfix since it is inserted between them to create new words. The verbs *ja* in their original stage, they each mean 'eat'. When these verbs are combined together, they produce an unacceptable word \**ja-ja*. After the insertion of /-e-/ the end result is the acceptable new compound word *ja-e-ja*. The acceptability of this compound word suggests that as an interfix, -e- has been used to create a new word *ja-e-ja*.

Secondly, in Bauer's (1988 a) view, an interfix is an affix or a linking element which is placed between two morphemes of equal status to produce new words. In ja-e-ja, -e- is not part of the two verbs ja and ja (which are of the equal status). But without this element /-e-/ this new word would not have been created. The fact that Sesotho mono-syllabic verbs need -e- to link them together I the formation of a compound verb, qualifies it as an interfix.

Thirdly, Bauer (1988 b) elaborates that an interfix does not have meaning on its own. The study considers the vowel /-e-/ which occurs between the Sesotho reduplicated mono-syllabic verbs as meaningless on its own. However, when affixed to the verbs, it brings change to the meaning of the word in which it is inserted. For instance, without the -e-, the words *ja* and *ja*, each means 'eat'. But after the insertion of this element, the new word becomes *ja-e-ja* and the meaning that is derived is that the act of eating takes place slowly or occurs in smaller quantities. Similarly, in the case of *shoa* 'die', when a compound verb *shoa-e-shoa* has been created, the new meaning indicates that whatever is dying, it is doing that in small numbers.

#### Conclusion

This chapter has reiterated that in Sesotho there are two types of compound words, namely; the compound nouns and compound verbs. It has demonstrated that although this is so, interfix only exist in the latter. This is because what happens in the formation of compound nouns is the opposite of what obtains during the formation of compound verbs. In the case of interfixation some elements are inserted between words. However, in the case of compound nouns elements are dropped. But in the formation of compound verbs, the vowel –e- is inserted between two verbs and this is in-line with what transpires during interfixation. The chapter discussed reasons why the vowel –e- should be considered as an interfix.

### **CHAPTER FOUR**

### The Type of a morpheme an Interfix /-e-/ is

#### 4.0 Introduction

The previous chapter justified the existence of an interfix in Sesotho compound words. It indicated that an interfix in Sesotho does not exist in compound nouns but in compound verbs made up of reduplicated mono-syllabic verbs. The present chapter aims to establish what type of a morpheme is the proposed

interfix /-e-/. In order to achieve this, the chapter starts by discussing morphology which is the branch of linguistics that deals with morphemes.

## 4.1 Definition of Morphology

As defined by Booij (2007 a), morphology refers to the study of the internal structure of words. For him, morphology is divided into two major areas, namely; inflectional and derivational morphology. On the one hand, Nordquist (2020 a) defines inflectional morphology as the study of processes which include affixation that distinguishes word forms in certain grammatical categories. An example of an inflectional affix can be /-ing-/ which is attached to the verb 'go' to derive 'going'. This affix shows that an action of 'going' is still in progress. But it does not change neither the grammatical category nor the meaning of the verb 'go'.

The above example illustrates Nordquist's (2020 b) further clarification that inflectional morphology differs from derivational morphology in that, it deals with changes which are made to existing words. Booij (2007 b) elaborates further that inflectional morphology deals with the markers of grammatical categories such as case, number, tense and aspect. These inflectional morphemes are attached to lexical stems to create word-forms (rather than new words). For instance, to the verb 'cook' which is in its base-form, the morpheme -s can be attached to mark agreement with a third person singular subject. Additionally, the morphemes -ed and -ing can replace -s to mark past tense and both the past and present participle tenses. In Sesotho, tense morpheme is also attached to the verb as in *buile* 'spoken'. In this example, the past tense morpheme -*ile* has been attached to the verb *bua* 'speak'. It should be noted that the attachment of this morpheme -*ile* led to the dropping of the final vowel -a in the verb *bua*. It is also worth-noting that in Sesotho the tense morpheme is not always attached to the verb. In the case of future tense, for instance, it is

inserted between the subject concord and the verb as in *Thabo o tla bua* 'Thabo will speak.' In this example, the tense marker *tla* 'will' appears between the subject concord 'o' and the verb *bua* 'speak'.

On the other hand, Lieber (2017) defines derivational morphology as a type of word formation process that creates new lexemes, either by changing syntactic category or by adding new meaning to a free or a bound base. He further clarifies that this field of word formation deals with the patterns and rules guiding the formation of new words (rather than just word-forms of existing words). Based on this explanation, the word 'unhappiness' for instance, would first be segmented into the base 'happy' and the derivational morphemes /-un-/ and /-ness-/. These morphemes are examples of word formations through prefixation and suffixation, respectively.

# **4.2 Types of Morphemes in Sesotho**

According to Baerman (2015), a morpheme is a smallest meaningful unit of language. For him, a morpheme is not necessarily the same as a word. The main difference between a morpheme and a word is that a morpheme sometimes does not stand alone, but a word always stands alone and have meaning on its own. Morphemes can be classified into two different types, namely; the free and bound morphemes. This section, therefore, discusses these morphemes as they occur in Sesotho.

## **4.2.1 Free Morphemes in Sesotho**

Yusuf (2011) defines a free morpheme as a type of morpheme which can stand independently in a sentence. Free morphemes are words. An example of a free morpheme in Sesotho can be *buka* 'book'. This word does not need to be attached to other morphemes in order to have meaning. Free morphemes are categorized into lexical (content words) and the functional morphemes.

## **4.2.1.1 Lexical Morphemes**

According to Christina (2015), lexical morphemes are the types of morphemes that carry the content of the message which is being conveyed. They include nouns, verbs and adjectives. She further observes that these lexical items constitute an open class since they allow addition of new lexical morphemes. Below are the examples of the Sesotho lexical morphemes:

- 13. a) thaba 'mountain'
  - b) bapala 'play'

The above words are lexical morphemes because they carry meaning on their own. That is, they convey a clear message even before the addition of other new morphemes. The morpheme *thaba* 'mountain' in 13 (a) is a noun. To this word, the morpheme **-ng** can be added to change its category from that of a noun to an adverb of place *thabeng* 'at the mountain'. The lexical morpheme *khathala* 'tired' in 13 (b) is a verb. It should be noted that this morpheme allows the addition of other morphemes. One of the morphemes that can be added to this word is mo- and the end result will be the new word with a different lexical category *mokhathala* 'fatigue' which is a noun.

## **4.2.1.2 Functional Morphemes**

As mentioned earlier, the other type of free morphemes is the functional morphemes. These are considered functional words of a language (Nurul, 2014) and they constitute a closed class of words since they do not allow an

addition of more morphemes. Functional morphemes are also termed grammatical morphemes. Bauer (2003) considers grammatical morphemes as function words because in his view, they are usually used for certain functions in a language. Nordquist (2019 c) supports this view as he defines grammatical morphemes as those bits of linguistic sounds which mark the grammatical categories of a language such as tense, number and gender, each of which has one or more functions. For example, in the Sesotho sentence *Mpho o ile sekolong* 'Mpho went to school', the morpheme *-ile* is used to mark past tense. The same sentence can be modified to *Mpho o ea sekolong* 'Mpho is going to school' where the morpheme *ea* depicts present tense. Similarly, in this sentence the morpheme tla can be inserted to depict future sentence. The new sentence will be *Mpho o tla ea sekolong* 'Mpho will go to school'.

As in other languages (Nordquist, 2019 d), in Sesotho grammatical morphemes are mainly expressed through the use of suffixes and prefixes as well as the particles like the definite and the negatives. For instance, to the name Mpho above, the prefix *bo*- can be attached to depict plurality. The derived word will, therefore, be Bo-*Mpho*. Additionally, the suffix *-nyana* may be attached to the same name to change it to a female name. The new name will be Mphonyana, which in Sesotho is a female name. In Sesotho negation is formed through the use of particles such as *ha* and *se*.

For instance, to negate the sentence *Mpho o ile sekolong* 'Mpho has gone to school' the negation article *ha* is inserted and this will result in *Mpho ha a ea sekolong* 'Mpho has not gone to school'.

### **4.3 Bound Morphemes in Sesotho**

According to Yusuf (2011), bound morphemes are those morphemes that cannot stand alone. They are always attached to words or other morphemes to have

meaning. Yusuf makes a distinction between two types of bound morphemes, namely; derivational and inflectional morphemes.

## **4.3.1 Derivational Morphemes**

Katamba (2015 a) defines derivational morphemes as the morphemes which are used to form new words in a language. These are the morphemes used to derive or create a new word by either changing the meaning or part of speech or both (Nurul, 2014). For example, to the English verb 'drive' the morpheme /-er/ can be attached to derive a noun 'driver'. In Sesotho, the morpheme –ng can be attached to the noun *tšimo* 'field' to form and adverb *tšimong* 'at the field'. In the provided examples, not only have the parts of speech changed, but also the meanings of the words.

# **4.4 Inflectional Morphemes in Sesotho**

Inflectional morphemes are described by Bauer (2004) as those morphemes which do not produce new words. They also do not change the grammatical category of the word or the morphemes to which they are attached. This means that, after attaching inflectional morphemes, a noun remains a noun, and a verb stays a verb. Their only function is to indicate grammatical functions such as plural and tense of words. In Sesotho, the morpheme /-ela/ can be suffixed to the verb ngoatha 'dish up' to derive ngoathela 'dish up for'. To the same verb, the morpheme /-etse/ can also be attached to produce ngoathetse 'has ditched up for'. Although the attachment of these morphemes have not changed the category of the words, they have modified the tense. Ngoathela is in the present tense while ngoathetse is in the past tense.

### 4.4.1 The element /-e-/ as an Inflectional Morpheme in Sesotho

This section is meant to establish what type of a morpheme the proposed interfix /-e-/ is. It was mentioned in the previous chapter that in Sesotho, in the formation of reduplicated mono-syllabic compound words, a morpheme /-e-/ is inserted between two verbs. Consider the examples below:

- **14**. a) *hloa-e-hloa* 'climb a little'
  - b) noa-e-noa 'drink a little'

The words in 14 above are examples of compound words made-up of reduplicated mono-syllabic verbs. In both examples, the proposed interfix /-e-/ has been inserted between two similar verbs. The study argues that this interfix is not a lexical morpheme as it cannot stand alone in a sentence. It becomes meaningful only after it has been inserted between the reduplicated verbs. In this position, this interfix indicates a present continuous tense. The fact that /-e-/ is meaningless outside these verbs and that it depicts tense is an indication that it is a bound morpheme. It perfectly fits the description of a bound morpheme by Yusuf (2011 a) who stipulates that bound morphemes are always attached to words or other morphemes to have meaning and that they depict, among other aspects, tense.

As it has already been shown above, in 14 (a) the proposed interfix /-e-/ has been inserted between the two mono-syllabic verbs *hloa* 'climb' and *hloa* 'climb'. Before the insertion of this interfix, the combination of the two words result in the unacceptable compound word \**hloa-hloa* '*climb-climb*'. But after the insertion of the proposed interfix /-e-/, the end result is a new compound word which is grammatical. Similarly, in 14 (b), the combination of the verbs *noa* 'drink' and *noa* 'drink create an unacceptable compound now \**noa-noa* 

'drink-drink'. But after the insertion of the interfix /-e-/ the acceptable compound word *noa-e-noa* is formed. The fact that the insertion of this interfix between two verbs produces words which are acceptable is viewed as an indication that the proposed interfix /-e-/ is an inflectional morpheme. It is important to emphasise that the insertion of the interfix /-e-/ has not produced new words. All that it has done is to make the existing ones acceptable. Therefore, as earlier indicated, the morphemes that are capable of forming new words are the derivational ones (Katamba, 2015 b).

Although the insertion of the proposed interfix /-e-/ between reduplicated monosyllabic verbs results in the formation of acceptable words, the grammatical category does not change. The change of *hloa-hloa* 'climb-climb' to *hloa-e-hloa* 'climb-a-little' and *noa-noa* 'drink-drink' *to noa-e-noa* 'drink-a-little', respectively, the new derived words remain verbs. It is only the inflectional morphemes that behave this way. This is, therefore, another instance that supports the argument that the proposed interfix /-e-/ is an inflectional morpheme.

It has been indicated that the insertion of /-e-/ between the compounds *hloa-hloa* 'climb-climb' and *noa-noa* 'drink-drink' change them to new compound verbs *hloa-e-hloa* 'climb a little' and *noa-e-noa* 'drink a little', respectively. The compound verb *hloa-e-hloa* may mean 'to climb slowly or in intervals'. Similarly, the compound verb *noa-e-noa* may mean 'to drink slowly or in intervals or in small quantities. Although the insertion of the proposed interfix between the reduplicated mono-syllabic verbs results in the modification of meaning, but the basic meaning is retained. In the discussed words, the basic meaning of 'climb' exists in both *hloa-hloa* and *hloa-e-hloa*. Similarly, the basic meaning of 'drink' coexists in both *noa-noa* and *noa-e-noa*. The inability to change the basic meanings of the discussed compound verbs proves that the interfix /-e-/ is, in fact, an inflectional morpheme.

#### Conclusion

This chapter discussed different morphemes as described by different scholars. It established that in Sesotho there are both free and bound morphemes. Free morphemes are those morphemes that can stand on their own and have meaning while the bound ones need to be attached to other morphemes to be meaningful. The bound morphemes are further categorized into two groups, namely; the derivational and inflectional morphemes. The former have the ability to change the category of words while the latter changes only aspects such as plurality and tense. The chapter has argued that the proposed interfix /-e-/ is an inflectional morpheme. The justifications provided include the fact that it cannot stand on its own and be meaningful. It does not change the category of the verb but it depicts tense. It does not change the meaning of the verb, but it modifies it to become acceptable.

#### **CHAPTER FIVE**

### THE GENERAL CONCLUSIONS

#### 5.1 Introduction

This chapter summarises and concludes the study. The purpose of this study was to justify the existence of an interfix in Sesotho words.

### 5.2 An Overview of the Previous Chapters

Chapter one introduces the study. It provides the statement of the problem, research objectives and questions, hypotheses, purpose of the study and significance of the study. It also presents the literature review and the theoretical framework that guided the study. The chapter further outlined the methodology adopted when carrying out the study. Lastly, it outlined the organisation of the study.

Chapter two of this study answers the question that relates to the types of compound words that are found in Sesotho. The study has established that in Sesotho, two types of compound words exist. There are those that are made up of nouns and those that are made up of verbs. It has been observed that based on their morphological structure, compound nouns are made up of nouns themselves combined with other words belonging to different grammatical categories. For instance, nouns can combine with other nouns to form compound nouns. They may also be combined with different qualificatives to create compound nouns. The qualificatives that are capable of being part of compound nouns are adjectives, possessives and quantitatives.

In order to establish how compound verbs are created, the study identified the type of verbs that exist in Sesotho. It discovered that in Sesotho, verbs may be classified on the basis of the number of syllables they are made of. On the basis of this criterion, the study identified four types of verbs, namely; the monosyllabic, di-syllabic, tri-syllabic and multi-syllabic verbs. Unlike compound nouns which are formed by combining a noun and other words from different grammatical categories, compound verbs are formed by reduplicating verbs or parts of these verbs. Of these verbs only the mono-syllabic and di-syllabic may be fully reduplicated to form compound verbs.

Chapter three has justified the existence of an interfix in Sesotho. It reiterates the fact that interfixation occurs in-between compounded words. The study pointed out that since in the formation of compound nouns elements are dropped instead of being inserted, this is considered as a clear indication that interfixation is not applicable in this type of compound words. However, since in the compounding of verbs the element /-e-/ is inserted in-between the verbs, the study argues that interfixation is relevant in compound verbs. The study further observes that interfixation is applicable only to reduplicated monosyllabic verbs. The view that is being held, therefore, is that in Sesotho the /-e-/ that is inserted in-between the mono-syllabic verbs is an interfix. This insertion of this interfix is obligatory since without it, the reduplicated mono-syllabic verbs are unacceptable. It is also in line with the principles of IA which guides the proper arrangement of morphemes to form acceptable words.

Chapter four was meant to establish what type of a morpheme is the proposed interfix /-e-/. The chapter begins by discussing different types of morphemes that are found in Sesotho. The study discovered that Sesotho has both free and bound morphemes. It further revealed that of the two types, the interfix /-e-/ has the characteristics of an inflectional bound morpheme. The study established that like other bound morphemes, it cannot stand on its own and be meaningful. That is, it has to be attached to other words for it to have meaning. It is an inflectional morpheme because it is incapable of changing the basic meaning of the words or the grammatical category.

### **REFERENCES**

Abend, D, G. 2018. Segmental Phonology. The Bantu Languages. Vol III, No 4. pp. 48-52.

Adams, V. 2003. *Complex Words in English*. New York: Oxford University Press.

Adger, D. 2019. Language Unlimited: *The Science Behind Most Creative Power*.

Oxford: Oxford University Press.

- Akmajian, A., Richard, D. & Harnish, R. M. 2004. *Linguistics. An Introduction to Language and Communication*. Cambridge: MIT Press.
- Alabi, V.A. (2003). Essentials of the Research Report in the Humanities and Related Fields. Ilorin: Haytee Press and Publishing Company Nigeria Ltd.
- Anderson, S.R. 1992. *A-Morphous Morphology*. Cambridge: Cambridge University Press.
- Anderson, S. R. 2014. Where is Morphology? In: Linguistic Inquiry. 13. 571-612.
- Aronoff, M.1994. Morphology by itself, stems and inflectional classes.

  Cambridge: MIT Press.
- Aronoff, M. & Fundeman, K. 2011. Applied Linguistics. Cambridge: Blackwell.
- Asuoha, J C. 2018. Cyclic Phonology to Lexical Phonology: The Structure of Phonological Representations. Vol III, No (i), pp. 131-137.
- Baerman, K. 2015. Language. New York: Holt.
- Bauer, L. 1988. Introducing Linguistic Morphology. University Press.
- Bauer, L. 2004. *A Glossary of Morphology*. Edinburgh: Edinburgh University Press.
- Beason, L. 2005. *The McGraw-Hill Handbook of English Grammar and Usage*. McGraw-Hill: US.

Bonex, F. 1975. *Electronic communication and human development*. New York:

New York.

Bonnet, E. 2008. *Cuadernos De Linguistica XV*. Spain: Universitat Autonoma De

Barcelona.

Booij, 2007. The Function of Word Formation. Bandung: PT.

Borer, H. 2005. In Name Only. Structuring Sense. Oxford: Oxford.

C. F. 1954. *'The Strict Cycle in Phonology':* Linguistic Inquiry. Vol V. CBS Publishing.

Christina, 2015. Word-Formation Analysis on Slang Words: The Indonesia Teenagers' Novel. IV. No. 6.115.

Creswell, J. W. and Clark, M. C. 2011. *An Introduction to Language*. CBS: University of Columbia.

Crystal, D. 2008. Dictionary of Linguistics and Phonetics. Oxford: Blackwell.

Defranzo, E. N. *Qualitative Research*. [https://www.snapsurveys.com]. (Accessed on 10 April 2020)

Delahuntry, G. P. & Garvey, J. 2010. English Language: From Sound to Sense. WAC: Parlor Press.

Doke, C. M. & Mofokeng, S. M. 1974. *Textbook of Southern Sotho Grammar*. Cape Town: Longman South Africa.

Fakoye, E. O. 2004. *General Linguistics: An Introductory Reader*. Enugu: Magnet Business Enterprise.

Gowers, E. 2014. Plain Words. Oxford. Oxford University Press.

Guma, S. M. 1971. *An Outline Structure of Southern Sotho*. Pietermaritzburg: Shutter & Shooter.

Guma, S. M. 1981. *An Outline Structure of Southern Sotho*. Pietermaritzburg: Shutter and Shooter.

Haspelmath, M. and Sims, A. D. 2010. *Understanding Morphology*. London: Hodder Education.

Hassan, H., Leedy, P. D. and J. E. Ormrod. 1994. *Practical Research:* Planning.

XII, No 1, pp. 77-88.

Hockett, F. C. 1954. Two Models of Grammatical Description in Morphology.

Katamba, F. 2004. *English word*. Routhladge: London.

Katamba, F & Stonham, J. 2006. Morphology. New York: Palgrave Macmillan.

Katamba, F. 2015. English words: structure, history and usage. Routledge.

Kenneth, D. J. 2003. Temporal Constraints and Characterising Syllable

- Structuring. Cambridge University: Cambridge University Press.
- Koali, N. T. 2020. *The Existence of Infixes in Sesotho*. Unpublished M.A. Thesis. National University of Lesotho: Roma.
- Korter, J. 1994. *Electronic Discourse, Linguistic Individuals in Virtual Space*. Albany: New York.
- Kortman, C. 2005. *Current morphology*. New York: N.Y. State University of New York Press.
- Kosch, I. M. 2006. Discontinuous Elements in Morphology. Pretoria: UNISA.
- Krishna, B. M. 1990. *The Word and the World*: India's Contribution to the study
  - of Language. V. III. No. (iv), pp 179-203.
- Lewis, R. J.2012. Qualitative Research Practice. London: Sage.
- Lieber, R. 1980. "Inflection and the Lexicon". Unpublished MIT ms. London: Routledge.
- Lieber, R. 2017. *Introducing Morphology*. Cambridge University: Cambridge University Press.
- Loos, E. 2003. *Glossary of Linguistic Terms: What is a noun?* University of California: CL Press.
- Macdonald, R. R. 1967. A Student's Reference Grammar of Morden Formal Indonesian. Washington D. C.: Georgetown University.

McCarthy. J. & Alan, P. 1995. Faithfulness and reduplicative identity. GLSA:

University of Massachusetts.

Mardheya, A. & Taibah, M. 2019. *The Study of Word-Forms in a Language*. U.S.:

Jowa State University.

Matthews, P.H. 1998. Morphology. Cambridge: Cambridge University Press.

Maxwell, J. C. 1998. Inflection and the Lexicon. Unpublished MIT ms.

Meklit, C. 2016. *An Analysis of Verbal Extension in Malawian Tonga*: Towards Mirror Principle and Templatic Morphology. Maputo: Eduardo Mondlane University.

Meyer, C. F. 2014. Introducing English Linguistics. Universidad de Zaragoza: Joan Houston Hall.

Miller, H. 2001. *Construction Morphology*. New York: Oxford University Press.

Muller, C., Olsen, S. & Rainer, F. 2015. The Function of the Lexicon in Transformational Generative Grammar. The Hague: Mouton.

Nadarajan, S. 2006. A Cross-Linguistic study of Reduplication. US: University of Arizona.

Nagpal, P. 2020. *Literature: The Journal of Common Wealth Literature*. Vol 55. No 4. 590-633.

Napoli, D. J. 1996. *Linguistics. An Introduction*. New York: Oxford University Press.

Ndimele, O. M. 1999. *Morphology & Syntax*. Port Harcourt: M & J Grand Orbit Communications Ltd. No. (iii), pp 179-203.

Nordquist, R. 2019. *ThoughtCo: Observations on What is Language*.

[http://www.thoughtco.com/what is a language] (Accessed on 2 November 2019).

Nordquist, R. 2020. ThoughtCo: Performative Verbs.

[http://www.thoughtco.com/performative verbs] Accessed on 21 January 2020.

Nurul, C. 2014. Discourse Analysis. Universitas Brawijaya: Malang.

Osuagwu, B. I. G and Nwozuzu, G. A. 2007. Fundamentals of Linguistics, Language, Grammar and Semantics. New Delhi: PHI Learning Private Ltd.

Oxford Dictionary. 2021. Vol 2. 7<sup>th</sup> ed. Oxford: oxford University Press.

Rakotsoane, F. C. L. 2012. Writing for a Research Project. Maseru Epic Printers: Maseru.

Reamer, M. 2009. *Jonah Cases in Empty Names*. Oxford: Oxford University Press.

Saunders, G. and Lewis, C. S. 2012. *English or a Local Language in Advertising*. USA: Pearson Prentice Hall.

Sergio, S. & Vogel, I. 2010. *Cross-Disciplinary Issues in Compounding*.

University of Delaware: US.

Sneddon, J. 1996. Indonesian: A comprehensive grammar. London: Routledge.

Sue, P. M. & Winchel, D. H. 2005. Bridging the communication Gap. TS: Texas

State University.

Swanson, P. 2015. *The Study of Language*. United Kingdom: Cambridge University Press.

Taherdoost, H. 2016. Validity and Reliability of Research. London: SAGE.

Travis, L. 2011. *The Syntax of Reduplication*. United Kingdom: Cambridge University Press.

Uri, O. 2005 Cognitive Linguistics. Cambridge: Cambridge University Press.

Wang, S. P. 2005. Corpus Based Approaches and Discourse Analysis in Relation

to Reduplication and Repetition: Journal of Pragmatics 37, 505-540.

Woravut, J. 2015. *Idea Sharing: Reporting Verbs in Research Writing: Lessons from Experts.* Vol 66. 74. 135-146.

Yusuf, A. 2011. Bound morphemes in English and Bimanese. Islam: Islamic

University of Makassar.