

HISTORICAL EVOLUTION OF *-ILE* SUFFIX ACROSS BANTU LANGUAGES

The Case of Nyasa-Tanganyika Corridor

Nichodamus Robinson

**PhD (Linguistics) Thesis
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By

Nichodamus Robinson

**A Thesis Submitted in Fulfilment of the Requirements for the Degree of Doctor
of Philosophy (Linguistics) of the University of Dar es Salaam**

**University of Dar es Salaam
February 2021**

CERTIFICATION

The undersigned certify that they have read and hereby recommend for acceptance by The University of Dar es Salaam a thesis titled: “*Historical Evolution of -ile Suffix across Bantu Languages: The case of Nyasa-Tanganyika Corridor*”, in fulfilment of the requirements for the degree of Doctor of Philosophy (Linguistics) of the University of Dar es Salaam.

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DEDICATION

I would like to dedicate my thesis to my Father Robinson Andalwisye Mwanyangala, My Mother Neema Angetile Mwakyoma and My beloved daughters Grace, Glory and Gracious.

LIST OF ABBREVIATIONS

TAM	Tense, aspect and mood
TA	Tense and aspect
PST	Past tense
P4	Remote past
P3	Yesterday past
P2	Today past
ANT	Anterior
Pres	Present tense
FUT	Future
F1	Near future
F2	Far future
SM	Subject marker
OM	Object marker
Neg	Negative marker
VB	Verb root
VBimb	Modified verb base
FV	Final vowel
Cl	Clitic
A	Applicative
C	Causative
R	Reciprocal
CV	Consonant -vowel
1s	First person singular
1p	First person plural
Inf	Infinitive
HB	Habitual

ABSTRACT

This study investigated the historical evolution of *-ile* suffix across four selected Bantu languages forming the Nyasa-Tanganyika corridor. Historically, the *-ile* suffix, as a traditional aspect marker across Bantu languages, is constantly evolving such that it is amenable to different roles, on the one hand, and the suffix induces phonological changes under varying conditions, on the other hand. This poses a challenge in specifying its phonological and morphological properties unless close attention is paid to an individual language. In this regard, the study sought to attain three objectives which are, first, to describe phonological changes associated with *-ile* across the selected languages. Second, to examine the morphological properties of *-ile* in relation to tense and aspect marking and lastly, to identify other inflectional morphemes that work in conjunction with *-ile* suffix across the selected languages forming the Nyasa-Tanganyika corridor.

This study is guided by three interdependent theories, namely the Theory of Utterance Selection (TUS), the Reichenbach's linear theory and Cognitive theory. The study was conducted in Kyela and Mbeya Rural Council (Mbeya region), Mbozi and Ileje (for Songwe region). Data were collected through the wordlist/sentence list, available written texts, narrative stories and interviews.

The findings support the view that *-ile* suffix is phonologically and morphologically evolving. The evolution of the suffix is shown by some commonalities and variations regarding the morphophonological patterns involving *-ile* suffix across the languages under study. Variations indicate differences in the pace of innovations within and across languages under study where some patterns involving *-ile* processes are more advanced than others. However, the judgement about which language is the most innovative or conservative to change one has to rely on individual dimensions. All in all, the findings indicate that *-ile* suffix does not only mark tense and aspect but also it extends its functions, as it is involved in other situations such as greetings, compliment making and thanksgiving.

Further study is recommended on the extent to which the phonological and morphological changes illuminate change in language genetic relationship among languages forming the Nyasa-Tanganyika corridor.

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CHAPTER ONE

INTRODUCTION

This study seeks to investigate the historical evolution of *-ile* suffix¹ across four Bantu languages forming the Nyasa-Tanganyika corridor. The languages are Nyakyusa (M31), Ndali (M301), Nyiha (M23) and Malila (M24). These four languages are appropriate for the investigation because they are genetically so related that it becomes possible to study language change in *-ile* through comparative method² (see Muzale, 1998; Campbell, 1999). This introductory chapter presents the background to the problem, statement of the problem, the significance of the study, the scope of the study and information about the languages under study.

1.1 Background to the Problem

Historically, *-ile* suffix is morphologically and phonologically evolving (Kahigi, 1988; Nurse & Philippson, 2006; Botne, 2010). In the course of its evolution, the suffix induces language change³. To start with a morphological change, the existing literature indicates that although *-ile* suffix was originally an aspect (perfective) marker (Bastin, 1983; Kahigi, 1988; Mkude, 1994; Rugemalira, 2005), it may now be regarded as either a tense or aspect marker across Bantu languages (Hyman, 1995; Nurse and Philippson, 2006; Botne, 2010).

Broadly speaking, the morphological change involving *-ile* suffix across Bantu languages is associated with the general change involving tense and aspect systems. The theoretical statement made by Nurse (2008) that tense and aspect are systems of the verb that are not inflexible, that is they are constantly changing over time,

¹This work adopts *-ile* form despite many forms of the suffix that have been identified across Bantu languages because the *-ile* form is the most common suffix among the selected languages and across Bantu languages at large (see Nurse & Muzale, 1999).

²In studying language change, linguists apply two methods (Campbell, 1999) which are studying changes in a single language (text in Old English and Modern English) and using comparative method to study changes among languages that are genetically related.

³Language change occurs in interesting and paradoxical ways such that speakers of the language often may not notice the language changing (Hayes, 2009).

creates the ground to hypothesize that the morphological⁴ change involving *-ile* suffix is far rooted in the general change involving tense and aspect. That is to say, there is a close relationship between morphological change involving *-ile* suffix and the general change involving tense and aspect systems.

Scholars such as Nurse and Philippson (2006) and Nurse (2008) identify two kinds of changes involving tense and aspect systems in Bantu languages. The first kind is the change in the encoding of tense and aspect. Nurse (ibid) points out that Bantu languages are verby, that is they are agglutinating, characterized by affixes of various kinds, including tense and aspect. A single Bantu verb originally consists of a string of up to eleven slots, centred on the root. In Bantu languages, the tense was originally marked by pre-root morphemes (i.e. prefixes) while aspect was marked by post-root morphemes (i.e. suffixes) including the *-ile* suffix. However, across Bantu languages, there is significant variation in which tense and aspect are encoded. According to Nurse and Philippson (2006), some languages (e.g. Gikuyu E 51) encode tense before the root and aspect after the root while others encode both tense and aspect before the verb root. These scholars notice further that there are languages that express individual tenses or aspects by a combination of morphemes occurring before and after the verb root.

It is assumed that the change in the encoding of tense and aspect across Bantu languages as advocated by Nurse and Philippson (2006) has a direct effect on the change of *-ile* suffix. For instance, for languages where both tense and aspect are encoded before the root, such as Swahili, the *-ile* suffix has disappeared but languages which encode tense and aspect by a combination of both pre-root and post-root formatives, the *-ile* suffix might have changed its role in the verb by being either a tense marker or both a tense and an aspect marker. This hypothesis is supported by Nurse and Philippson (ibid) who point out that it is possible for a post-

⁴The suffix *-ile* is one of the inflectional morphemes denoting one of the categories of the verb such as tense, aspect, mood, polarity, case and number. The categories have been traditionally treated under morphology (Bybee & Dahl, 1989; Kiango, 2000).

root morpheme *-ile* to express tense in some languages though, over millennia, the morpheme started its life as an aspect marker.

The second change involving tense and aspect systems across Bantu languages as pointed out by Nurse (2008) is the change in tense/aspect prominence. The concept of prominence is well explained by Bhat (1999) who points out that languages may be classified according to the priority they give to the relevant dimension of tense, aspect and mood (TAM). In this view, that is to say, there are tense prominent, aspect prominent and mood prominent languages. The fact that Bantu languages were originally aspect prominent (Nurse, 2007) does not imply that there was no tense; rather languages gave a priority to aspect marking. Therefore, the change among some Bantu languages from being aspect prominent to tense prominent implies that these languages give priority to tense and that is why many of these Bantu languages have multiple tenses. So far, these Bantu languages have multiple tenses due to speakers' innovation, but not retention (Nurse, 2007). In Many Bantu languages, the past has evolved into three past tenses and the future into two (Nurse, 2008).

Also, the change from aspect prominence to tense prominence among many Bantu languages may have led to the problem in distinguishing aspect from tense and that is why many Bantuists use the cover term, tense-aspect (see Besha, 1989, Mreta, 1998). It is likewise assumed that if *-ile* suffix was associated with aspect marking, then the change across Bantu from being aspect prominent languages to tense prominent languages has also affected the traditional role of *-ile* suffix. As far as the morphological change involving *-ile* suffix across Bantu is concerned, Botne (2010) maintains that the evolution of *-ile* suffix is of a particular interest as it sheds light on possible developmental paths leading to perfective, perfect and past.

Regarding phonological change, the existing literature indicates three aspects that provide evidence for the phonological evolution of *-ile* suffix across Bantu languages. First, the reviewed studies indicate that *-ile* suffix manifests itself in different phonetic forms/shapes across Bantu languages. Historically, the suffix is said to be originated from the Proto-Bantu perfective suffix *-ida* (Mazrui, 1983)

and/or *-ide* (Meeussen, 1967; Hyman, 2007). Cook (2013) regards the two forms, namely *-ida* and *-ide* as the earlier forms of *-ile* suffix in Bantu. However, in languages such as Ruhaya (Hewson, Nurse & Muzale, 2000), Runyambo (Rugemalira, 2005), Ruzinza and Runyankore (Muzale, 1998), the suffix assumes the *-ire* form for perfective. The data presented by Swilla (1998) and Botne (2003) show the existence of *-ile* and *-ite* forms in Ndali. The fact that *-ile* suffix manifests itself into different phonetic shapes i.e. *-ida*, *-ide*, *-ite*, *-ile/-ire*, *-ye* and *-ie*, provides evidence for the phonological evolution of the suffix across history.

So far, based on the existence of different phonetic forms of *-ile* suffix across Bantu languages, three questions need to be addressed by the current study. The first question is; what are the common phonetic forms of *-ile* suffix across the selected languages? The second question is; what conditions restrict the use of the phonetic forms of *-ile* suffix when more than one form exist in a single language? And the last question is; which form has a wider domain of use than the other forms that may exist in a single language?

Apart from change in the phonetic forms of the suffix, different scholarly works indicate that under varying conditions across languages, the suffix *-ile* modifies the verb base to which it is attached (Mould, 1972; Kahigi, 1989; Kula, 2001; Kotzé, 2008; Robinson, 2015; Harford & Malambe, 2017). This modification made by the suffix to some verbs across Bantu is named by Mould (1972) as ‘modified base’ while Bastin (1983) names it as ‘imbrication’. Eventually, imbrication has become the common label for this phonological change induced by *-ile* suffix.

Talking about imbrication, there are incidences when it is possible to predict the output form when *-ile* is attached (technically called regular suffixation) and when it is not (irregular suffixation). Kula (2001) mentions regular verb roots in Bemba which are CV-roots as in *fú-a* ‘die’ whose output form is *fwíle* ‘had died’, ØVC- as in *ak-a* ‘light’ whose output form is *ak-ile* ‘had lit’, ØVCV- as in *úmfu-a* ‘hear’ whose output form is *úmfwíle* ‘had heard’, CVC- as in *pet-a* ‘fold’ whose output form is *pet-ele* ‘had folded’ CV:C- as in *paal-a* ‘bless’ whose output form is *paal-ile* ‘had blessed’, CGV:C- as in *fyuuk-a* ‘escape’ whose output form is *fyuuk-ile* ‘had

escaped' and CV(CV)NC- as in *béleng-a* 'read whose output form is *béleng-ile*. The extended verbs in Bemba are irregular. Also, regarding *-ile* suffix, Kotzé (2008) identifies two types of verbs in Northern Sotho. These are simple verbs (regular) and complex/extended (irregular) verbs. According to Kotzé (*ibid.*) when *-ile* (the past tense suffix in Northern Sotho) is added to regular verbs (normally verbs with bisyllabic stems) it results into adding a syllable to the verb stem. In contrast, when *-ile* suffix is added to irregular verbs (which in Northern Sotho involve extended verbs) it does not result into adding a syllable to the stem rather the suffix undergoes fusion with the verb stem.

Also, the existing literature shows that when *-ile* suffix is attached to some verbs, the vowel of the suffix induces consonant mutation (Meeussen, 1959; Muzale, 1998). However, this kind of phonological change is not very common across Bantu languages compared to imbrication. A few languages such as Rundi and some Rutara languages demonstrate this phonological change induced by the vowel of the tense /aspect (T/A) suffix.

Generally, variations in the changing properties of *-ile* suffix across Bantu languages create the ground to conclude that it is hard to generalize on the phonological and morphological changes involving *-ile* suffix unless close attention is paid to an individual language.

1.2 Statement of the Problem

Traditionally, *-ile* suffix is an aspect marker across Bantu languages (see Mazrui, 1983; Kahigi, 1988; Nurse, 2008). However, its roles have been constantly evolving such that it is difficult to regard it as either a tense or an aspect marker (see Hyman, 1995; Botne, 2010) unless close attention is paid to an individual language. Additionally, the suffix's output form is unpredictable under varying conditions across Bantu languages. Following its evolution, the suffix signals the danger of partial or total disappearance in some Bantu languages such as Shambala (Besha, 1985), Chasu (Mreta, 1998) and Swahili (Kiango, 2000). Therefore, this study seeks to systematically investigate the phonological and morphological changes involving *-ile* suffix across Bantu languages forming the Nyasa-Tanganyika corridor.

1.3 Research Objectives

1.3.1 General Objective

The general objective of the study is to investigate the historical evolution of *-ile* suffix across the selected languages forming the Nyasa-Tanganyika corridor.

1.3.2 Specific Objectives

This study seeks to attain the following specific objectives:

- i. To describe phonological changes associated with *-ile* suffix across selected Bantu languages in the Nyasa-Tanganyika corridor;
- ii. To examine the properties of *-ile* suffix in relation to tense and aspect marking across selected languages in the Nyasa-Tanganyika corridor and,
- iii. To identify other inflectional morphemes that work in conjunction with *-ile* suffix across selected languages in the Nyasa-Tanganyika corridor.

1.4 Research Questions

This study seeks to answer the following questions:

- i. What phonological changes are associated with *-ile* suffixation across selected Bantu languages in the Nyasa-Tanganyika corridor?
- ii. What are the properties of *-ile* suffix in relation to tense and aspect across selected languages in the Nyasa-Tanganyika corridor?
- iii. What other inflectional morphemes work in conjunction with *-ile* suffix across selected languages in the Nyasa-Tanganyika corridor?

1.5 Significance of the Study

This study is deemed significant because it moves beyond the mere description of tense and aspect of a single language to investigate the evolution of *-ile* suffix with its properties across four Bantu languages. The study specifically provides a systematic description of the changing phonological and morphological properties of the suffix in its historical development. The evolution of *-ile* suffix helps us understand better the processes of language change in general and hence this study contributes knowledge to the study of language change particularly in the realms of phonology and morphology. In this view, the study is deemed theoretically and

practically significant. Its findings contribute to diachronic and synchronic methods for the examination of tense/aspect systems and the morphophonemic analysis in Bantu as well as cross-linguistically. For practical pursuit, this study acts as a useful reference for linguistic research, exemplifications and it contributes to language documentation.

1.6 The Scope of the Study

This study focuses on the historical evolution of *-ile* suffix across four selected Bantu languages forming the Nyasa-Tanganyika corridor. The evolving nature of *-ile* suffix, necessitates the interaction of historical linguistics, morphology and phonology. In this regard, this study covers phonological and morphological changes involving *-ile* suffix across four selected languages forming the Nyasa-Tanganyika corridor.

1.7 Languages under Study

This study deals with four Bantu languages⁵ forming the Nyasa-Tanganyika corridor. The term ‘Nyasa-Tanganyika Corridor’ was first named by a social anthropologist called Monica M. Wilson in 1958 after a linguistic area stretching geographically between the two lakes; Nyasa and Tanganyika (Persohn, 2017). The Nyasa-Tanganyika corridor involves Bantu languages of South-West Tanzania, North-East Zambia and North Malawi (Walsh & Swilla, 2000). In Guthrie’s alphanumeric zoning of Bantu, the languages forming the Nyasa-Tanganyika corridor fall under zone M (Maho, 2009), specifically M10, M20 and M30.

There is a general agreement that the languages forming the Nyasa-Tanganyika corridor are genetically related. However, scholars differ in the way they classify the languages into further subgroups in the corridor. On the one hand, LOT (2009) subdivides the Nyasa-Tanganyika corridor into two groups, namely groups A and B. According to LOT, group A is made up of Mwika subgroup with the following

⁵According to Greenberg (1963) Bantu languages form a subgroup of the already established genetic subfamily of Western Sudanic Phylum called Niger-Congo. Broadly speaking, the Niger-Congo is the largest phylum in the World and consists of 1436 languages including the Bantu family (Grimes, 1996; Heine & Nurse, 2000). Although it is difficult to calculate the total number of languages, the Bantu family roughly consists of between 300 to 600 languages (Maho, 1999; Nurse, 2003).

languages; Kisafwa, Kipimbwe, Kifipa, Kimambwe, Kinyiha, Kinyamwanga, Kihembe, Kilongwe and Kihende, whereas group B is made up of Unyakyusa with the languages; Kinyakyusa, Kindali, Kilungu, Kilambya, Kimalila, Kiwanda, Kisongwe and Kiwemba.

On the other hand, scholars such as Walsh and Swilla (2000) and Loth (2011) subdivide the Nyasa-Tanganyika corridor into three groups which are the Fipa-Mambwe group (Mwika), Nyiha-Safwa group (Nyika) and Nyakyusa-Ngonde group. The Mwika group comprises of Pimbwe, Rungwa, Fipa, Rungu, Mambwe, Wandia and Namwanga; the Nyika group is made up of Lambya, Nyiha, Malila, Safwa, Wandya, Mwanga, Iwa, and Tambo; finally, the Nyakyusa group is made up of Nyakyusa and Ndali. The following tree diagram illustrates the subdivision of the languages in the Nyasa-Tanganyika corridor as modified from Walsh and Swilla (2000), Maho (2009) and Loth, (2011).

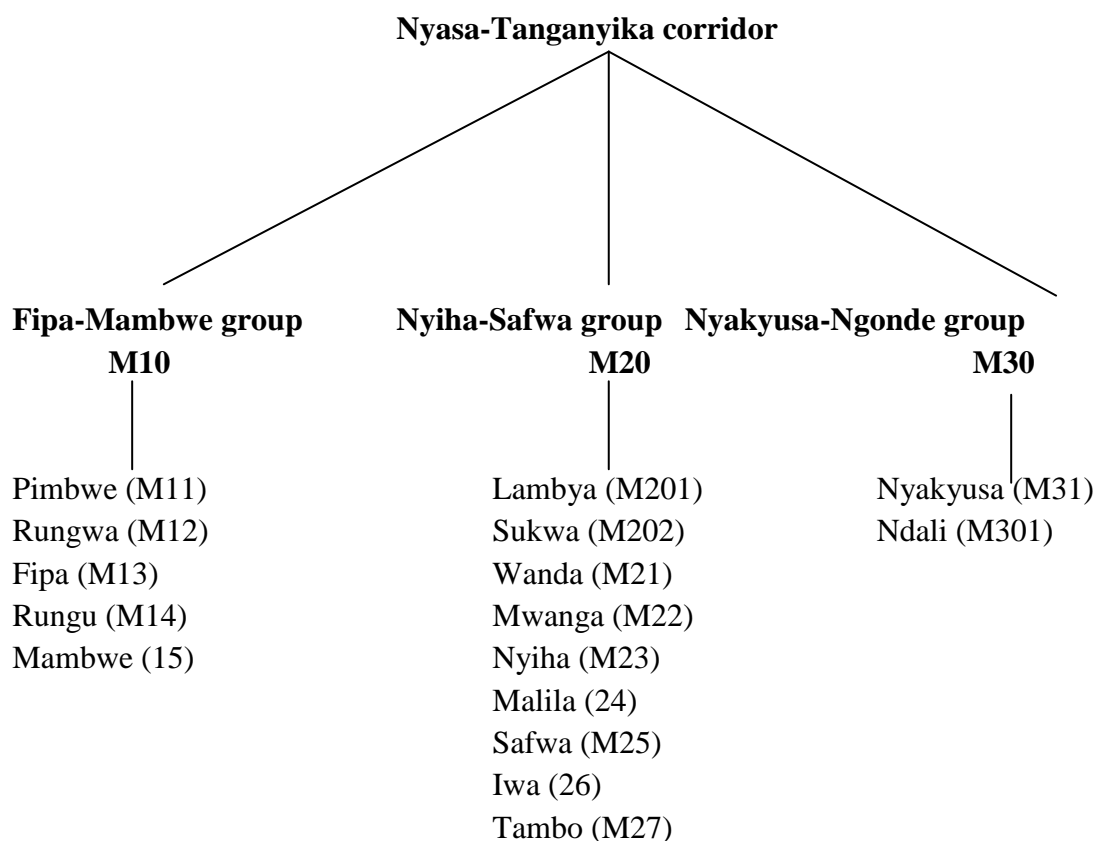


Figure 1.1: Sub-groups of the Nyasa-Tanganyika corridor

Source: Walsh & Swilla (2000), Maho (2009), Loth (2011).

As pointed out earlier that the current study focuses on Nyakyusa and Ndali (selected from group M30) as well as Nyiha and Malila (from group M20), in the following paragraphs, it is important to describe briefly about where the four selected languages are spoken.

Felberg (1996) describes Nyakyusa as a language which is spoken by approximately one million people and stretches geographically from the north Rukuru River near Kalonga in Malawi⁶ to Mbeya town in Tanzania where the majority of the speakers live in Tanzania. The language is classified as M31 in the list of Bantu languages. According to LOT (2009), Nyakyusa is one of the ten big languages in Tanzania with 740,020 speakers. Majority of the speakers approximately 682,539 live in Mbeya Region particularly in the three Districts, namely Kyela (with 138,869 speakers), Rungwe (258,441) and Mbeya Urban (145,007). In comparison with other, mostly under described, Corridor languages, there has been a relatively high number of publications on Nyakyusa. The description nevertheless remains very sketchy (Persohn, 2017). Therefore, a lot is needed to contribute to language documentation.

Ndali is another language under investigation which is mainly spoken in Ileje District for the part of Tanzania as well as in Malawi⁷ (Swilla, 1998). Veil (1972) points out that Ndali is a Bantu language which is spoken in Chitipa and Kalonga Districts (in Malawi) and Ileje district (in Tanzania). Ndali is said to be closely related to Nyakyusa (Mbembela, 2016) and it is spoken mainly in Ileje district. According to LOT (2009), the number of Ndali speakers is around 186,923. Most of Ndali speakers refer to their language as Chindali (Mshani, 2014). Ndali is among the languages in the corridor whose classification is controversial. For instance, while some scholars regard Ndali as falling under group M20 together with languages such as Nyiha, Malila, and Safwa, others regard Ndali as falling under group M30 together with Nyakyusa. Ndali is among the Bantu languages in the corridor which is not well documented (Masebo, 2007).

⁶ In Malawi the language is called Ngonde

⁷ In Malawi it is called Sukwa

According to Lindfors, Woodward and Nagler (2009) Nyiha is a language spoken in south-western Tanzania. Approximately 246,000 Nyiha speakers live in Mbozi District, Songwe Region which formally was part of Mbeya Region. According to the authors, Mbozi is considered to be the traditional Nyiha speaking area. The language is also spoken in Malawi and Zambia. Nyiha falls under M20 with other languages such as Safwa, Malila, Lambya, Wanda, Sukwa, Iwa and Tambo. Nyiha is said to be closely related to Malila (Asheli, 2013) and Safwa (Goodness, 2014) to the extent that one may be tempted to regard the languages as dialects of one language. Nyiha is among the Bantu languages that have not been fully documented (Goodness, 2008).

Malila is spoken in Mbeya Rural Council; one of the districts in Tanzania (Mwahalende *et al.*, 2018). According to Sote (2011), Malila is a Bantu language which is closer to Nyiha than it is to Safwa. This language falls under group M20 with other languages being Nyiha, Safwa, Sukwa, Tambo, Nyamwanga, Iwa and Wanda. Kutsch-Lonjenga (2007) points out that Malila lacks a systematic study; in this view it is the least documented language of the selected sister languages in the Nyasa-Tanganyika corridor.

Generally, the four languages under study are genetically so closely related that scholars sometimes doubt as to whether they are languages or dialects. Also, a question or controversy has been noted in the literature on whether Ndali falls under the same group with Nyakyusa (Nyakyusa-Gonde group, M30) or under the same group with Nyiha and Malila (The Nyiha-Safwa group, M20). For instance, Mbembela (2016) points out that Nyakyusa and Ndali based on lexicostatistical method are genetically so closely related that one may regard them as dialects. In this view, Ndali falls under the Nyakyusa-Ngonde group with Nyakyusa. However, Mtenje (2016) points out that Ndali is genetically very closely related to Sukwa as they share 96% of the wordlist used. In this view, Ndali falls under the Nyiha-Safwa group where Sukwa is listed. Also, Asheli (2013) points out that based on lexical similarities, Nyiha and Malila are so closely related that one may be tempted to judge the languages as dialects.

In the same view, the controversy (debate) pointed out in the paragraph above so far does not imply that the current study is either intended to show which set of languages are closely related genetically or to show that the languages are dialects. Instead, the current study regards this debate as an important evidence to show that the selected languages are genetically related. For this reason, the four languages are appropriate for study of language change involving *-ile* suffix. This view is also supported by Campbell (1999) who points out that studying language change in less documented languages (like the four selected languages) requires languages which are closely related genetically.

1.8 Linguistic Profile

This section presents only information that is considered sufficient for the reader to understand the subsequent data and discussion. No attempt is made to present a comprehensive grammar of the languages under study. For a detailed discussion of various aspects of the languages, reference should be made to the following works; Felberg (1996), Robinson (2016), Swilla (1998), (2008), Asheli (2013) and Mwahalende, *et al.* (2018).

1.8.1 Phonology

This subsection presents sound inventory and some phonological processes which are as a result of the contact between consonants and vowels. In this subsection, the choice is made on the orthography to be used in the current study due to the mismatch between the sounds and orthography. Although some selected languages such as Nyiha (Asheli, 2013) and Malila involve tone contrast, the current study chooses not to present tone contrast unless tone is involved in tense/aspect marking in which *-ile* suffix (the main subject of this study) is expressed.

Consonants

Table 1.1: Consonants

	Bilabial		Labio-dental		Alveolar		Palatal	Velar		Glottal
Plosives	p	b			t	d		k	g	
Nasal	m					n	ɲ	ŋ		
Fricative	β	f	v		s	z	ʃ	x	ɣ	h
Affricates							c	ɟ		
Lateral						l				
Approximants	w						j			

There are generally twenty four consonants across the languages forming the Nyasa-Tanganyika corridor as presented in Table 1.1. Table 2.1, therefore, presents the consonants of an individual language among the four selected ones.

Table 1.2: The consonants

Code	Consonants																							
	p	b	t	d	k	g	n	ɲ	ŋ	m	s	z	f	ʃ	v	β	l	j	w	x	h	ɟ	c	ɣ
M31	+	-	+	-	+	+	+	+	+	+	+	-	+	-	-	+	+	-	-	-	-	+	-	+
M301	+	-	+	-	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+
M24	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
M23	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

There are different views among scholars about two sounds, namely the voiced velar stop [g] and the voiced velar fricative [ɣ] as far as Nyakyusa language is concerned. For instance, Lusekelo (2013) uses the voiced velar fricative while Robinson (2015) uses the voiced velar stop for the same language. This controversy may emanate from different factors such as dialectal difference and language change. When talking about dialectal difference, it is worth noting that Nyakyusa has two main dialects, namely Mwamba (spoken in mountainous areas particularly the area covering Rungwe district) and Ngonde (spoken in plain land called by natives 'Ntebheela' covering Kyela district). The use of the voiced velar fricative is

associated with the Mwamba dialect where Lusekelo conducted a study and the plosive [g] is associated with the Ngonde dialect where Robinson conducted a study. It is believed that normally languages undergo a sound change in one direction that is it is plausible for the plosive to become a fricative. In this regard, we can say the Ngode has preserved the earlier form [g] whereas the Mwamba dialect has weakened the stop into [ɣ].

So far, in some instances the orthography mismatches with the consonant sounds. For this reason, it is worth presenting the orthographic representation of the consonants to be applied in this work. Table 1.3 presents consonants attested in the languages and their orthography.

Table 1.3: Consonants and their orthographic representation

sound	Orthography	Examples Nyakyusa	Ndali	Nyiha	Malila
p	p	<i>pela</i> ‘create’	<i>pela</i> ‘create’	<i>pana</i> ‘kick’	<i>pana</i> ‘kick’
b	b	-	-	<i>bana</i> ‘dig’	<i>bana</i> ‘dig’
β	bh	<i>bhala</i> ‘count’	<i>bhala</i> ‘count’	<i>bhala</i> go’	<i>bhala</i> ‘go’
t	t	<i>tuula</i> ‘help’	<i>tuma</i> ‘send’	<i>teega</i> ‘get lost’	<i>teega</i> ‘get lost’
d	d	-	-	<i>diba</i> ‘cut’	<i>diba</i> ‘cut’
k	k	<i>kula</i> ‘grow’	<i>koma</i> ‘beat’	<i>kala</i> ‘buy’	<i>kala</i> ‘buy’
x	kh	-	-	-	<i>khoma</i> ‘beat’
g	g	<i>gona</i> ‘sleep’	-	<i>goga</i> ‘kill’	<i>goga</i> ‘kill’
ɣ	gh	-	<i>ghaluka</i> ‘return’	-	-
m	m	<i>moga</i> ‘dance’	<i>mogha</i> ‘dance’	<i>mayi</i> ‘mother’	<i>umuntu</i> ‘person’
n	n	<i>nega</i> ‘fetch’	<i>nu</i> ‘and’	<i>nu</i> ‘and’	<i>nu</i> ‘and’
ŋ	ng’	<i>ing’osi</i> , sheep’	<i>ing’ombe</i> ‘cow’	<i>ing’ombe</i> ‘cow’	<i>ing’ombe</i> ‘cow’
ɲ	ny	<i>nyumba</i> ‘house’	<i>nyumba</i> ‘house’	<i>nyumba</i> ‘house’	<i>nyumba</i> ‘house’
s	s	<i>senga</i> ‘slash’	<i>soona</i> ‘again’	<i>songo</i> ‘tax’	<i>songo</i> ‘tax’
z	z	-	-	<i>zwala</i> ‘dress’	<i>imbuzi</i> ‘goat’
c	ch	-	<i>chiisu</i> ‘country’	<i>ichaalo</i> ‘farm’	<i>ichaalo</i> ‘farm’
ʃ	sh	-	<i>ishiku</i>	<i>shiniishi</i> ‘now’	<i>shiniish</i> ‘now’
f	f	<i>fuula</i> ‘undress’	<i>fuula</i> ‘undress’	<i>fuuye</i> ‘died’	<i>fuuye</i> ‘died’
v	v	-	-	-	-
l	l	<i>loga</i> ‘bewitch’	<i>loga</i> ‘bewitch’	<i>lola</i> ‘see’	<i>lola</i> ‘see’
h	h	<i>haha</i> ‘seduce’	<i>homba</i> ‘pay’	<i>seha</i> ‘laugh’	-
j	y	-	<i>uyeesu</i> ‘Jesus’	<i>yimba</i> ‘sing’	<i>uyeesu</i> ‘jesus’
w	w	-	-	<i>awe</i> ‘you’	<i>iwe</i> ‘you’
ɟ	j	<i>jonga</i>	<i>jonga</i>	<i>amaji</i> ‘eggs’	<i>lwiji</i> ‘door’

However, in presenting consonants, the pre-nasalized stops [mb], [nd], [ŋg], [ɲj] and [ŋg] have not been included since it is not clear whether they stand as a single phoneme or a combination of two phonemes. In the course of data collection and analysis, an attempt was made to have a look at this debate. Two main clues have been observed as far as this debate is concerned. These are the voicing and replacement clues.

The voicing feature is one of the clues that can be used to judge whether or not the pre-nasalized stops stand as a single phoneme. For the voiced stops preceded by a nasal sound like [mb], [nd], [ŋg], [ɲj] and [ŋg], it is very hard to separate them into two phonemes in these languages. In this view, the pre-nasalized stops stand as a single phoneme. However, the voiceless stops preceded with a nasal sound like [ŋk], and [mp] on the other hand are easily separated. Examples in (1) demonstrate the sequence of a nasal sound and voiceless stop as separate phonemes in Nyakyusa in comparison with Ndali examples.

- (1). a. [ŋk] as in *nkamu* (M31) *umukamu* ‘the relative’ (M301)
 b. [mp] as in ‘*mpunga*’ (M31) *umupunga* ‘the rice’ (M301)
 c. [nt] as in ‘*ntungulu*’ ‘the liar’ (M31) *umutungulu* ‘liar’ (M301)

The sounds illustrated in (1) constitute two separate phonemes where [ŋk] is a sequence of [m] and [k] as in *u-mu-kamu* which across time speakers tend to delete [u] of the class prefix allowing the alveolar nasal [n] to assimilate the place feature with the voiceless velar [k]. That is, they belong to different morphemes.

The second clue is called replacement which is two-fold. In the first place so far, it is observed that when the short causative suffix [i] mutates the pre-nasalized stops, the whole segment mutates and being replaced by a single sound. For example, the Nyakyusa word *jonga* ‘get lost’ with causative suffix [i] causes the pre-nasalized [ŋg] to mutate into [s] as in *jonga* to *josia* ‘cause something to get lost’. However, in Nyiha and Malila the short causative [i] and the vowel of the T/A suffix do not mutate the whole segment as in Nyakyusa. In this view, the pre-nasalised stops such as [ŋg, nd, nt] are regarded as a sequence of two vowels. The second place is about phonological modification of the borrowed words. When a word with a strange

sound is borrowed normally the strange sound is replaced with the sound attested in the target language. For example, using the data from Swilla (2008), Ndali has borrowed the Swahili word *darasa* ‘classroom’ and *diwani* ‘ward councilor’ which have been modified into *ndalasa* and *ndighwani* respectively. The Swahili sound [d] has been replaced by a pre-nasalized stop [nd], likewise, the sound [r] has been replaced by [l]. The fact that the whole segment [nd] replaces [d] implies that the pre-nasalized stop [nd] is a single phoneme as opposed to a sequence of two separate phonemes.

Vowels

While the Proto-Bantu (PB) had a seven vowel (7V) system, the majority of Bantu languages have reduced them into five vowels (Schadeberg, 1995; Hyman, 2003). According to these authors, languages which have reduced the seven vowels into five, underwent a historical process of merging the highest front **i/*ĩ* and back vowels **u/*ũ* into [i] and [u] respectively. In the Nyasa -Tanganyika corridor, some languages have maintained the PB seven vowel system while others have a five-vowel system. Figure 1.2 shows the vowels attested across languages forming the Nyasa-Tanganyika corridor.

Front	mid	back
i/ii	u/uu	super close
ĩ/ĩĩ	ũ/ũũ	high
e/ee	o/oo	mid
	a/aa	low

Figure 1.2: Vowels

From figure 1.2, the vowels appearing on the right represent the long vowel and across Bantu languages appear double. The essence of having a five-vowel system across Bantu languages is a result of a merger process as symbolically illustrated in figure 1.3.

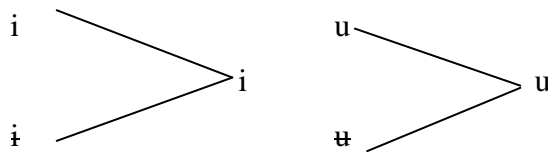


Figure 1.3: Split of the high vowels

Source: Masele (2001).

Malila and Nyakyusa represent languages with the seven-vowel system in the Nyasa-Tanganyika corridor and Ndali and Nyiha have five vowels. The following minimal pairs show the contrast between [u] and [ʊ] as well as the contrast between [i] and [ɨ] to provide evidence for the seven-vowel system in Nyakyusa and Malila.

Table 1.4: Seven vowel system in Nyakyusa and Malila

Word	Gloss	Word	Gloss	Language
<i>ikɨtuli</i>	piece of meat	<i>ikɨtʊli</i>	mortar	M31
<i>kula</i>	blow	<i>kʊla</i>	grow	M31
<i>tuka</i>	dig the ground roughly	<i>tʊka</i>	insult	M31
<i>tula</i>	become dwarf	<i>tʊla</i>	become guilty	M31
<i>pinda</i>	fold	<i>pɨnda</i>	tighten	M31
<i>bhwila</i>	every day	<i>bhwɨla</i>	eat in a silly way	M31
<i>kwinza</i>	very nice over there	<i>kwinza</i>	to come	M24

Although two of the languages under study (Nyakyusa and Malila) use the seven-vowel system, given the focus of this study, we will not show the vowel distinction in the examples presented in chapters four and five. For this reason, we have decided to show the orthographic representation of the vowels. Table 1.5 presents the orthography for vowels adopted in this work.

Table 1.5: Vowels and orthography

Vowel	orthography
i	i
ɨ	i
u	u
ʊ	u
o	o
e	e
a	a

Table 1.5 has shown short vowels. In these languages, there are also long vowels which in this work do orthographically appear double. Table 1.6 demonstrates the existence of long and short vowels using minimal pairs.

Table 1.6: Short and long vowel contrast

Short vowel	Gloss	Long vowel	Gloss	Languages
<i>iseke</i>	seed	<i>iseeke</i>	vegetable	M31,M301
<i>fula</i>	castrate	<i>fuula</i>	undress	M31
<i>bhola</i>	decay	<i>bhoola</i>	slaughter	M31, M23,M24
<i>bhala</i>	count	<i>bhaala</i>	increase	M31, M301
<i>pela</i>	create	<i>peela</i>	diarrhea	M31
<i>sala</i>	choose, select	<i>saala</i>	be happy	M31
<i>kula</i>	grow	<i>kuula</i>	uproot tooth	M31
<i>papa</i>	coagulate	<i>paapa</i>	give birth	M31, M301
<i>kunda</i>	become less hot	<i>kuunda</i>	drink	M31
<i>kupuka</i>	overturn	<i>kuupuka</i>	be uprooted	M31
<i>maha</i>	energy, power, strength	<i>maaha</i>	years	M23

Phonological processes

This subsection presents some phonological processes as a result of the contact between consonants and vowels. Normally the contact between consonants and vowels across the languages under investigation triggers various phonological processes which in turn may affect readers' understanding of the illustrations (data) that have been presented in chapter four and five of this work. For this reason, therefore, it is necessary to demonstrate how the vowels shape consonants in the languages under investigation by way of triggering phonological processes. To achieve this, it is better to illustrate these phonological processes in the realm of nominal morphology that is presenting how different chunks of a noun in these languages combine to form the whole entity. The noun across these languages is

made up of three parts, namely the pre-prefix, the prefix, and the stem. Based on the noun class prefixes there are about eighteen (18) noun classes across these languages. In presenting the extent to which vowels affect consonants in these languages, this study adopts the data for noun classes as presented by Asheli (2013), Robinson (2016) and Mwahalende *et al.* (2018)

From the data on noun classes presented by the authors mentioned in the paragraph above, it is possible to identify phonological processes due to the contact between consonants and vowels. The first phonological process to be noted is gliding. The combination of the noun prefix with the stem may result in having a sequence of two vowels where the high vowel occurs after another dissimilar vowel. This combination, in turn, causes gliding across the languages under investigation. For instance, the combination of the class 1 prefix *-mu-* with its stem *-ana* forms the word *mu-ana* ‘child’. However, the vowel of the noun class prefix [u] glides into [w] as it occurs before [a]. Table 1.7 provides examples for glide formation in Nyakyusa, Ndali, Malila and Nyiha.

Table 1.7: Gliding formation

		Stem	Combination	Gliding	Gloss	Language
class	Prefix					
1	<i>-mu-</i>	<i>-ana</i>	<i>-mu-ana</i>	<i>u-mwana</i>	a child	M31, M301, M23, M24
7	<i>-ki-</i>	<i>-alo</i>	<i>-ki-alo</i>	<i>i-kyalo</i>	field	M31
8	<i>-fi-</i>	<i>-amba</i>	<i>-fi-amba</i>	<i>i-fyamba</i>	hills	M31

The second phonological process is the deletion of the vowel of the noun prefix. This is a common process in Nyakyusa where the vowels of class 1 and 3 prefixes sometimes tend to drop when the prefixes are attached to the stem. For example, the class 3 noun prefix *-mu-* drops its vowel when it combines with its stem *-piki* into *u-mpiki* ‘a tree’. This process in Nyakyusa is accompanied with another phonological process. In other words, when deletion of the vowel has taken place the consonant sound assimilates to the place feature of the stem consonant. For example, the same noun prefix *-mu-* drops the vowel when it combines with the stem *-gunda* into *u-*

mgunda, then the bilabial nasal [m] assimilates its place feature with the following velar stop [g] to form the word *u-ŋgunda* ‘farm’. However, this phenomenon of deletion and/or assimilation does not occur in Ndali, Nyiha and Malila; the word remains in its basic form; *u-mu-gunda*. Table 1.8 provides a summary to illustrate the deletion of the vowel of class 1 and 3 prefixes, followed by place assimilation in Nyakyusa.

Table 1.8: Summary of deletion and assimilation in Nyakyusa

Class	Prefix	Stem	Combination	Deletion	Assimilation	Gloss
1	-mu-	-kamu	<i>u-mu-kamu</i>	<i>umkamu</i>	<i>uŋkamu</i>	relative
3	-mu-	-piki	<i>u-mu-piki</i>	<i>umpiki</i>	-	tree
		-gunda	<i>u-mu-gunda</i>	<i>umgunda</i>	<i>uŋgunda</i>	farm
18	mu-	-kyalo	<i>mu-kyalo</i>	<i>mkyalo</i>	<i>ŋkyalo</i>	in the farm
		nyumba	<i>mu-nyumba</i>	<i>mnyumba</i>	<i>nnyumba</i>	in the house

In Nyiha, Malila and Ndali so far, no phonological process is involved. For instance, the Nyakyusa word *ungunda* is *u-mu-gunda* in the other three languages.

The fourth common phonological process involved is the continuant stopping, where the fricatives become stops after nasal. For instance, the common sound in Nyakyusa and Ndali is the bilabial fricative, these languages do not have pure sound [b], but it comes in these languages through continuant stopping. The word *uluβabhu* ‘one firewood’ in Nyakyusa and Ndali has its plural form *imβabhu*, also *uluβafu* ‘a rib’ its plural is *imβafu* ‘ribs’. Table 1.9 provides a summary to illustrate the concept of continuant stopping in Nyakyusa and Nyiha.

Table 1.9: Summary to illustrate continuant stopping in Nyakyusa and Nyiha

Class (singular)	11	Class 10 (plural)	Gloss	Language
u-lu-bhu-mba		i-mbumba	walls	M23
u-lu-bhaga		i-mbaga	fences	M23
u-lu-bhafu		imbafu	ribs	M31
u-lu-bha-bhu		imbabhu	firewood	M31

The bilabial fricative [β] has been orthographically written <bh>. Also, the segments that change have been written in italics. Therefore, the bilabial fricative [β] becomes a bilabial stop [b] after a nasal sound [m] in these two languages.

Generally, this subsection has presented some aspects of phonology across the languages under study. The following subsection presents some aspects of morphology.

1.8.2 Morphology

This subsection presents the verbal structure for the selected languages. With this verbal structure, First of all, we will be able to compare it with the structure suggested as a proto-Bantu as presented in chapter two. Secondly, we will be able to relate the extent to which the change involving the verbal structure in these languages has affected the morphological change involving *-ile* suffix. Finally, we will be able to grasp well the concept of tense and aspect (Swilla, 1998). Being agglutinative, the verb of the selected Bantu languages is generally made up of a string of different inflectional and derivational morphemes occupying up to ten slots. Table 1.10 presents the general structure of the verb across these selected languages to account for the position of *-ile* suffix.

Table 1.10: The general structure of the verb across the selected languages

Slot	Name	Function (s)
1	Pre-Initial	Primary negative marker, tense marker
2	Initial	Subject marker (SM)
3	Post initial	Secondary negative marker
4	Formative	Tense and aspect
5	Infix	Object marker
6	Radical	Root
7	Suffix	Extension
8	Pre-final	Tense and Aspect markers
9	Final	Vowel
10	Post-final	Clitics

The verb structure presented in Table 1.10 adopts the linear template system indicating the number of slots with morphemes occupying each of the available slots. For this reason, a brief description of the functions of these slots with morphemes falling under the slots is worth presenting.

Slot 1

Across the four selected languages, slot 1 is for pre-initial and it is made up of morphemes whose roles vary from language to language. Examples provided in (2) illustrate this variation.

(2) a. *a-tu -ku -bhuk -a pakilembelo* [M31]

1 2 4 6 9

FUT SM TA root FV Monday

‘We will go on Monday’

b. *ti-bha lim e* ‘they will cultivate’ (near future) [M301]

1 2 6 9

Fut -SM cultivate -FV

c. *ti-bha-ka-lim-e* ‘they will cultivate’ (far future) [M301]

d. *te-tu-bhal-e*

1 2 6 9

Neg-SM-count-FV

‘We will go’

Examples in (2) show that the function of slot 1 in Nyakyusa and Ndali is to mark future tense. The presented examples indicate that the future tense in Nyakyusa is marked by morpheme *a-*, as shown in (2a), in Ndali by *ti-*, as shown in (2b-c). This suggests that the initial slot in the two languages is no longer for negation as it was in Proto-Bantu (Meeussen, 1967). However, Nyiha has maintained the traditional Proto-Bantu function of the morpheme falling under slot 1. In this language, the slot 1 morpheme *te-* marks negation (but it is associated with the future) as in (2d).

Slot 2

This slot is technically called initial position and it constitutes a range of morphemes in these languages whose function is to mark the subject. Table 1.11 provides a summary for subject markers across Nyakyusa [M31], Ndali [M301], Nyiha [M23] and Malila [M24].

Table 1.11: Subject markers

	M31		M301		M23		M24	
	sg	pl	sg	pl	sg	pl	sg	pl
PER1	<i>ni</i>	<i>tu</i>	<i>ni</i>	<i>tu</i>	<i>i(ni)</i>	<i>tu</i>	<i>i(ni)</i>	<i>tu</i>
PER2	<i>gu</i>	<i>mu</i>	<i>ghu</i>	<i>mu</i>	<i>u</i>	<i>mu</i>	<i>u</i>	<i>mu</i>
PER3	<i>a</i>	<i>bha</i>	<i>a</i>	<i>bha</i>	<i>a</i>	<i>bha</i>	<i>a</i>	<i>bha</i>

The subject markers across the four languages to a large extent are similar. The examined data show that there is a close relationship between the subject markers and *-ile* suffix. Examples in (3) illustrate the relationship between the subject marker and *-ile* suffix in Malila and Nyiha.

(3). a. *umuzungu á-lees-ite imashini izya kusoholela ikahawa kumwituu uku* [M23]

The white SM/H-bring-PST machine of processing coffee in our land

‘The white brought the coffee processing machine in our land’

b. *umuzungu á-leet-ile amawuwa kumwitu kuMalila* [M24]

The white SM/H-bring-PST pyrethrum in our Malila land

‘The white brought pyrethrum in our Malila land’

The examples presented above show that in Malila and Nyiha, the suffix *-ile* co-occurs with the high tone (´) mounted on the subject marker when marking the so-called remote past (more examples about tense categories have been presented in chapter 5).

Slot 3

This slot is called post-initial and it constitutes morphemes for negative marking. For languages such as Nyakyusa and Ndali, this is a slot for primary negative

marking. However, in Nyiha, the slot is for secondary negative marking since, in this language, the initial slot is for primary negative marking as it was in proto-Bantu. There are two negative markers in Nyakyusa which are *-ka-* and *-ti-*. Examples in Table 1.12 illustrate the context in which negative markers *-ka-* and *-ti-* are used in Nyakyusa.

Table 1.12: Use of negative markers *-ka-* and *-ti-* in Nyakyusa

Affirmative sentence	Negative sentence
a) <i>tu-tungwiile imikooko</i> SM-VBimbr cocoa 'We have picked cocoa fruits'	<i>tu-ka-tungul-a imikooko</i> SM-Neg-VBimbr cocoa 'We have not picked cocoa fruits'
b) <i>a-tu-ku-ul-a imikooko</i> FUT-inf-SM-buy-FV cocoa 'We will buy cocoa'	<i>a-tu-ti-ku-ul-a imikooko</i> <i>FUT-Neg-inf-SM-buy-FV cocoa</i> 'We will not buy cocoa'

As presented in Table 1.12, the negative marker *-ka-* in Nyakyusa is associated with the anterior and past tense, as shown in the first row of the table while the negative marker *-ti-* is associated with the present and the future tenses. The relationship between *-ile* suffix and negative marker *-ka-* in Nyakyusa has been observed. For instance, when the negative marker *-ka-* is inflected in perfective (anterior) construction, it causes *-ile* suffix to disappear. Also, the data examined show that in Malila and Nyiha, there is a close relationship between *-ile* suffix and negative marker *-ta-*. Examples in (4) illustrate the relationship between the negative marker and *-ile* suffix in Nyiha and Malila.

- (4). a. *bhá -many -ile* [M24 & 23]
SM/H -know -PST
'They knew'
- b. *bha -tá -many -ile* [M24 & 23]
SM -Neg/H-know -PST
'They did not know'

As presented in (4), when the negative marker is introduced in the remote past construction, the high tone (´) is originally mounted on the negative marker as illustrated in (4b). However, without a negative marker, the high tone is normally mounted on the subject marker (4 b).

Slot 4

This slot is for formatives and it constitutes morphemes that primarily mark tense. These sample languages selected from the Nyasa-Tanganyika corridor represent Bantu languages where a tense is marked by a combination of morphemes that occur before and after the root. Slot 4 is the one whose morphemes may combine with the post-root morpheme *-ile* to mark different tenses in these languages. More discussions on tense and aspect have been done in chapter five of this thesis.

Slot 5

This slot is named as infix and its function is to mark the object. There is a range of morphemes that mark the object across these selected languages. These morphemes also inflect for person and number. Table 1.13 summarizes these object markers in these languages.

Table 1.13: Object markers

	M31		M301		M23		M24	
	sg	pl	sg	pl	sg	pl	sg	pl
PER1	<i>ni</i>	<i>tu</i>	<i>ni</i>	<i>tu</i>	<i>ni</i>	<i>tu</i>	<i>ni</i>	<i>tu</i>
PER2	<i>ku</i>	<i>bha</i>	<i>ku</i>	<i>bha</i>	<i>-ku-</i>	<i>bha</i>	<i>ku</i>	<i>bha</i>
PER3	<i>mu</i>	<i>bha</i>	<i>mu</i>	<i>bha</i>	<i>mu</i>	<i>bha</i>	<i>mu</i>	<i>bha</i>

The examples provided in Table 1.13 exhibit striking similarities in terms of object markers across the languages under investigation.

Slot 6

This slot is named as radical and it is the slot for the verb root. Across the selected languages the verb root manifests in different structures. Table 1.14 provides a summary of different unextended root structures across the selected languages.

Table 1.14: The general structure of the verb root

Root	Gloss	Structure	Language(s)
<i>fu-a (fwa)</i>	die	CV-	M31, M301, M23, M24
<i>lu-a (lwa)</i>	fight		M31, M301, M23, M24
<i>ku-a (kwa)</i>	pay dowry		M31, M301, M23, M24
<i>bhomb-a</i>	work	CVC-	M31, M301, M23, M24
<i>lim-a</i>	cultivate		M31, M301, M23, M24
<i>kom-a/homa/khoma</i>	beat		M31, M301/M23/M24
<i>bhyala</i>	plant	C(G)VC-	M31, M301
<i>fwal-a/zwal-a</i>	dress		M31, M301/M23, M24
<i>paal-a</i>	praise	CV:C-	M31, M301, M23, M24
<i>hool-a</i>	cry loudly		M31, M23, M24
<i>waal-a</i>	plant		M23, M24
<i>kaat-a</i>	sleep		M23, M24
<i>teeg-a</i>	get lost		M23, M24
<i>leefy-a</i>	make	CV:C(G)	M31
	trouble		
<i>paasy-a</i>	fear		M31
<i>bhelenga</i>	count	CVCV(N)C-	M31
<i>kalanga</i>	fry		M31

The examples provided in Table 1.14 show different unextended root structures of verb across these selected Bantu languages. According to Kula (2001), verbs with CV-roots are very few in number as in Bantu languages they cannot exceed twenty verbs. Also, these verbs with CV-roots are so short that to utter them speakers normally use the morpheme *ku-* as a building strategy. Table 1.15 provides examples to illustrate the use of *ku-* as a building strategy for the short CV-root verbs across the selected languages.

Table 1.15: CV-verbs with the *ku-* as a building strategy

Stem		Building strategy	Gloss
Root	FV		
<i>fu</i>	a	<i>ku-fwa</i>	to die
<i>lu</i>	a	<i>ku-lwa</i>	to fight
<i>gu</i>	a	<i>ku-gwa</i>	to fall down
<i>ku</i>	a	<i>ku-kwa</i>	to pay dowry
<i>pi</i>	a	<i>ku-pya</i>	to be cooked/burnt
<i>li</i>	a	<i>ku-lya</i>	to eat
<i>si/shi</i>	a	<i>ku-sya</i>	to grind
<i>nu/ng'u</i>	a	<i>ku-nwa/kung'wa</i>	to drink

Also, across these selected languages, there are verbs with relatively longer root structures which have undergone a process of extension and lexicalization. Table 1.16 provides examples of lexicalized verb roots across the selected languages.

Table 1.16: Lexicalized CVCVC- roots

Stem		Gloss	Language
Root	FV		
<i>sogol</i>	a	go	M23, M24
<i>yebhel</i>	a	harvest	M23, M24
<i>tendam</i>	a	sit down	M23, M24
<i>lombol</i>	a	get by chance	M23
<i>tungula</i>	a	pick fruits e.g. mangoes	M31
<i>pokel</i>	a	receive	M31, M301
<i>bhotok</i>	a	be abundant	M31
<i>teleh</i>	a	cook	M23, M24

With examples presented in Table 1.16, the verb extension extension suffixes cannot be separated without distorting the meaning of the words.

Slot 7

This slot constitutes several verb extensions including the applicative, causative, passive, stative, and reciprocal extensions. The extensions do not only derive the meaning of the verbs to which they are attached and increase the number of arguments on any verb but also affect the syllable structure of the verb. In this view, these extensions do influence the phonetic shape of *-ile* suffix as presented in chapter four. Table 1.17 summarizes different verb extension suffixes in the selected languages.

Table 1.17: The summary of verb extensions

Types	M31	M301	M24	M23
applicative	<i>-el- / -il-</i>	<i>-el- / -il-</i>	<i>-el- / -il-</i>	<i>-el- / -il-</i>
reciprocal	<i>-an-</i>	<i>-an-</i>	<i>-an-</i>	<i>-an-</i>
causative	<i>-esi-/ -isi-</i>	<i>-esh-/ -ish-</i>	<i>-isi-/ -izi-</i>	<i>-isi-/ -izi-</i>
passive	<i>-igu-</i>	<i>-ighu-</i>	<i>-u-</i>	<i>-u-</i>
stative	<i>-ek-/ -ik-</i>	<i>-ek-/ -ik-</i>	<i>-ekh-/ -ikh-</i>	<i>-eh-/ -ih-</i>

These extensions may in one way or another affect the position of *-ile* suffix. This is because when the extension and *-ile* suffix co-occur in the verb the extension must be attached before *-ile* suffix.

Slot 8

Slot 8 across these selected languages is for tense and aspect. The common morphemes occupying this slot are the tense/aspect suffix (es) *-ile/ite/-ie* and the habitual suffixes *-ag-* and *-ang-*. Since *-ile* suffix is the main candidate in this study; its properties are well presented in chapters four and five. But in this paragraph it is necessary to present brief information about the habitual morphemes across the selected languages.

Across these languages, the habitual morphemes *-agh-/ag-/ang-* in most cases do occur in past and future tenses. The use of the habitual suffixes *-ag-/agh-* or *-ang-* in these languages are restricted by some conditions. For instance, in Ndali the *-agh-*

suffix is widely used but *-ang-* is attracted to verbs extended with causative suffixes and verbs with CV-roots as exemplified in (5).

- (5) a. *abhamanyishi bha-a-bha-bhomb-esh-ang-a abhaana imbombo*
 teachers SM-PST-OM-work-Caus-Hab-FV children work
 ‘Teachers used to make pupils work’
- b. *abhotata bha-ka-tu-many-ish-ang-a ukupekesa umwoto*
 the forefathers SM-PST-OM-teach-Caus-Hab-FV to make fire
 ‘Long time ago our forefathers used to teach us how to make fire’
- c. *abho bha-ta-a-bhomb-agh-a imbombo bha-a-fw-ang-a ni insala*
 who SM-Neg-PST-work-Hab-FV work SM-PST-die-Hab-Fv and hunger
 ‘Those who were not working used to die of hunger’

In Malila and Nyiha the *-ag-* suffix is widely use, however, the *-ang-* suffix has a restricted domain of use as it is used with CV- verb roots. Examples in (6) demonstrate the context in which the past habitual forms are used in Malila and Nyiha.

- (6) a. *kumwitu kuMalila tu-kha-pim-ag-a amawuwa kuchaama* [M24]
 In our Malila SM-PST-sell-Hab-FV flours to cooperative union
 ‘In our Malila land we used to sell pyrethrum to cooperative union’
- b. *kumwitu kuMalila invula ya mangaagu yá-talikh-ag-a umwezi wa kumi* [M24]
 in our Malila the rain for maize SM/H-begin-Hab-FV the month of ten
 ‘In our Malila land the first rain for maize used to rain in October’
- c. *kumwitu uku abhaantu bha-ha-puul-ag-a ikahawa kunyoobhe* [M23]
 here in our land people SM-Hab-process-Hab-FV coffee in hands
 ‘In the past days, in our land people used to process coffee by hand’
- d. *a-ha-ly-ang-a inyama shimashiima* [M23]
 SM-TA-eat-Hab-FV meat every day
 ‘He used to eat meat every day’

- e. *a-ha-zwal-ag-a ishati itolomvu pa amile mushabiki wa Yanga* [M23]
 SM-TA-dress-Hab-FV shirt yellow when he was fan of Yanga
 ‘He used to put on a yellow shirt when he was a Yanga fan’

Examples provided above show that the past habitual for *-ag-* is widely used but the *-ang-* form is restricted to some verbs such as *li-a* ‘eat’ as demonstrated by example in (6d). Also, in Nyakyusa, the *-ag-* has a wider domain of use but the *-ang-* suffix has a very restricted environment. Examples provided in (7) demonstrate the context for the use of past habitual forms in Nyakyusa.

- (7) a. *umo momuno ikyeluku ja-a-bhiik-ang-a mo imikooko gyake*
 in there is where KYERUCU SM-PST-put-HAB-FV Cl cocoa its
 ‘in there is where KYERUCU used to store its cocoa’
- b). *ijolo bhataata bha-a-kubhilw-ag-a fiijo ni mbombo ja mikooko*
 long ago the forefathers SM-PST-overwhelm-HAB-FV with work of cocoa
 ‘long ago the forefathers used to be overwhelmed with the work involving processing cocoa’
- c. *abhakyulusi bha-a-ulisy-ang-a ko amabhwise kumbeeje*
 retail traders SM-PST-sell-HAB-FV Cl palm oil to Mbeya
 ‘Retail traders used to sell their palm oil in Mbeya’

The examples provided above so far have demonstrated the restricted domain of use of the past habitual form *-ang-* in Nyakyusa. As in examples (7a & b) the past habitual form *-ang-* must co-occur with locative clitics *po*, *mo* and *ko* whereas *-ag-* occurs elsewhere.

The third habitual distinction is the future habitual which across these languages denotes condition. In Nyakyusa and Ndali, the future habitual aspect is marked by a combination of the slot 1 marker *a-* and *ti* respectively with the habitual suffixes *-ag-/ang-*. Examples in (8) demonstrate the forms for future habitual in Nyakyusa and Ndali.

(8) a. *linga u-kwel-ile a -tu-ku -ku-song-el-ag-a* *isongo* [M31]

If SM-pass-ANT FUT-SM- Inf-OM-pay-A-HAB-FV fee
 ‘If you pass we will be paying for the fee’

b) *ti-tu-lim-agh-e* *ifilombe* [M301]

F1-SM-cultivate-Hab-FV maize
 ‘We will be cultivating maize’

c). *ti -tu -ka -lim -agh -e* [M301]

F2-SM F2-cultivate-Hab-FV
 We will be cultivating’

The examples provided above demonstrate habitual marking in declarative sentences. But habitual in subjunctive mood is marked by *-ag-* with a final vowel *-e*. In Malila and Nyiha, the final vowel *-e* mutates the consonant of the habitual suffix [g] into [j] making the *-ag-* to become *-aj-*. In Nyakyusa, the final vowel harmonizes with the vowel of the habitual suffix *-ag-*; hence, the habitual suffix in subjunctive mood is *-eg-* as opposed to *-ag-* suffix which is used in simple declarative mood.

Slot 9

Slot 9 across these selected languages is for the final vowel (FV). Two common final vowels have been identified. The first one is the *-a-* and the second one is the *-e*. The first final vowel *-a* is used in the simple declarative mood. However, the final vowel *-e* is ambiguous as on the one hand it primarily marks subjunctive mood and it marks declarative mood when a sentence has the tense/aspect suffix *-ile* or the sentence denotes future on the other hand. Examples for which these final vowels are used have been provided in chapter five.

Slot 10

This slot is for clitics. The common clitics across these languages are locatives. Examples of locative clitics in Nyakyusa are *po* as in *tu-lim-ilepo* ‘we have as well cultivated there’, *mo* as in *tu-a-liingiilemo* ‘we one day entered in there’ and *ko* as in *tu-a-bhuukileko* ‘we also went over there’.

To sum up, there is a change of the verbal structure presented in this subsection compared to the proposed Proto-Bantu verb structure presented in chapter two. For instance, the function of slot 1 in the proto-Bantu verb was primarily for primary negative marking while in the selected languages the slot is for both primary negative marking (Nyiha) and tense marking (Nyakyusa and Ndali). Also, the pre-final was primarily for aspect marking only (*-ile*, and *-ag-/ang-*) while in the selected languages the pre-final position is for tense and aspect marking. It should be noted that these changes involving positions of tense and aspect in the verb have a direct effect on the changing properties of *-ile* suffix.

1.9 Chapter Conclusion

This chapter has presented a range of issues related to the problem under investigation. It has presented the background information, the problem under investigation and the scope of the study. It is pointed out in this chapter that *-ile* suffix is evolving as it manifests in different phonetic shapes and it is phonologically blurred when attached to some verbs. Also, the chapter has maintained that following the suffix's morphological evolution, it is not clear whether it marks aspect or tense unless a systematic investigation is done across the selected Bantu languages forming the Nyasa-Tanganyika corridor.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

This chapter comprises two main sections; literature review and theoretical framework. The literature review section reviews several studies to provide the general picture regarding the evolving nature of the suffix. Also, the section presents a review about how the concepts of tense and aspect (in which the suffix as the main theme in this study is a part) are viewed cross-linguistically and across Bantu languages in particular. The section for the theoretical framework presents theories which guide this study.

2.2 Literature Review

In this section, several studies related to the current study have been reviewed. The section begins by describing *-ile* suffix in terms of its position in the verb and some of its changes across Bantu languages. Also, the section introduces the concepts of tense and aspect with which the suffix is associated.

2.2.1 The *-ile* Suffix across Bantu Languages

The *-ile* suffix is one of the inflectional categories of the verb across some Bantu languages (Botne, 2010). Being agglutinative, the structure of the Bantu verb has been the central subject of many comparative and descriptive studies in Bantu linguistics (Maho, 2007). This is motivated by two main things; its complexity and the way languages have been modifying the structure of the Proto-Bantu verb. For instance, Nurse (2008) points out that a single-word verb originally consisted of a string of up to eleven slots centred on the root whereas to the left were inflectional prefixes expressing relative, negative, subject, tense, aspect and several other categories (conditional, focus, etc.), as well as object. To its right were (derivational) extensions, together with (inflectional) aspects, mood, and minor categories. Many Bantu languages still have a similar structure. However, some languages have modified the original structure by shortening and/or extending it (see Maganga & Schadeberg, 1992; Kiango, 2000). For comparison purposes, it is important to demonstrate the structure of the Proto-Bantu verb as proposed by Nurse (2008) who adopted it from Meeussen (1967). Nurse maintains that Proto-Bantu verb exhibits a

clear structure with definable elements occurring in a fixed order involving eleven positions as presented in (9).

(9). The Proto-Bantu Verb structure

Slot	Name	Function
1.	Pre-initial	primary negative marker
2.	Initial	subject markers
3.	Post-initial	for secondary negative
4.	Formative	for tense/aspect
5.	Limitative	for a small set of aspect marker
6.	Infix	for object markers
7.	Radical	for root
8.	Suffix	extension
9.	Pre-final	inflectional (TAM)
10	Final position	final vowel
11.	Post-final	clitics

Referring to the structure of the Bantu verb in (9), *-ile* suffix is traditionally said to occupy slot 9 which is for inflectional categories. In most cases, this slot is made up of morphemes that denote aspect mainly perfective and habitual aspects marked by *-ile* suffix and *-ag/-ang-* respectively. However, the review of different studies indicates that the structure of the verb across Bantu languages is changing. For instance, the Swahili verb structure presented by Kiango (2000) is slightly different from the verb structure presented in (9). Also, the Kinyamwezi verbal structure as presented by Maganga and Schadeberg (1992) is different from that of Swahili and the one presented in (9). Following the fact that the structure of the verb across Bantu languages is changing, the current study is of the view that the change involving the verbal structure across Bantu, in one way or another has an influence on the morphological evolution of *-ile* suffix.

Across Bantu, *-ile* suffix has become the main subject in a number of scholarly works focusing on phonology and inflectional morphology (cf. Bastin, 1983; Mapanje, 1983; Kagaya, 1987; Kahigi, 1988; Swilla, 1998; Muzale, 1998; Mreta,

1998; Ferrari-Bridgers, 2009; Savic, 2017; Bernander, 2017). Quite a good number of studies in either Bantu phonology or morphology have in one way or another studied about *-ile* suffix. The review made in these different studies shows that *-ile* suffix is undergoing both phonological and morphological change across Bantu languages. Starting with the phonological change, three main things have been identified as evidence regarding the evolution of *-ile* suffix. The first thing is the fact that *-ile* suffix manifests itself in different phonetic forms. For instance, studies such as Meeussen (1967) and Hyman (2007) regard *-ide* as a Proto-form of *-ile* suffix. Although not systematically focused on *-ile* suffix the study by Oden (1996) shows that two forms, that is *-ile* and *-ite* exist in Kimatumbi. Also, the data presented by Swilla (1998) and Botne (2003) indicate the existence of *-ite* and *-ile* forms in Chindali. In other languages such as Ruhaya (Hewson, Nurse & Muzale, 2000), Runyambo (Rugemalira, 2005), Ruzinza and Runyankore (Muzale, 1998), the form *-ire* is applied for a perfective suffix. Therefore, the suffix across Bantu exists in different forms which are *ida*, *-ide*, *ite*, *-ile*, *-ire*, *-ie* and *-ye*. The fact that *-ile* suffix manifests itself in several phonetic shapes implies that in its historical development, the suffix changes its phonetic shape/form across Bantu languages.

Also, studies by Givón (1970), Mould (1972) Mreta (1998), Muzale (1998), Kula (2001), Botne (2003), Lusekelo (2007), Rugemalira (2005), Asheli (2013) and Perhson (2017) have highlighted on the evolving nature of *-ile* suffix across Bantu languages. For instance, the data presented by Mreta (1998) indicate the existence of the *-ie* form of the tense/aspect (T/A) suffix in Chasu. In this language (Chasu), the T/A suffix has undergone partial disappearance as the consonant is dropped. Also, in the same view of the disappearance of the suffix, in Swahili, *-ile* suffix has disappeared and it has been replaced by a pre-root morpheme *-me-* that marks perfective or retrospective (Beaudoin-Lietz, 1999; Kiango, 2000). The point behind this statement is that *-ile* suffix was once a perfective marker in Swahili. This is evident in Swahili dialects such as Kiamu and Kibajuni which have retained the *-ile* form. For example, in Kiamu dialect the perfective forms are *-me* and *-ile* and Kabajuni dialect the forms are *-indo* and *-ile* (Mazrui, 1983).

Also, studies show that following its evolution, *-ile* suffix triggers phonological changes under varying conditions across Bantu languages. However, the terms for the phonological changes that the suffix induces vary from language to language. For instance, while Givón (1970) and Mould (1972) use the term ‘modified base’ to refer to the phonological change induced by *-ile*, Bastin (1983) uses the term ‘imbrication’ which eventually becomes widely used in Bantu linguistics. Scholars such as Kula (2001), Rugemalira (2005), Asheli (2013) and Robinson (2015) adopted the term ‘imbrication’ technically to imply the phonological change induced by *-ile* suffix under certain conditions. In the review of these studies particularly on the triggering conditions for the so-called modified base and/or imbrication with associated phonological processes, it is found that these conditions and the phonological processes shaping the phonological change vary from language to language as demonstrated in the following paragraphs.

Mould (1972) conducted a study to reconstruct the so-called ‘modified base’ in Bantu. In the study, *-ile* suffix is regarded as traditionally marking perfective and terminative aspect. Mould points out that the suffix *-ile* across Bantu languages induces a phonological change by modifying the base of the verb to which it is attached. Using the data from Chibemba, Runyankore, Kirundi and Luganda this author shows a set of phonological processes that have been modifying the verb base in these Bantu languages as a result of *-ile* suffixation. According to Mould the common phonological processes that modify the Bantu verbs are gliding, assimilation and reduction. In describing the phonological change induced by *-ile* suffix under the realm of ‘Modified Base’ (MB), Mould identifies two ways of forming the modified base which the author calls MB1 and MB2. MB1 involves regular suffixation of the *-ile* suffix. However, MB2 involves attaching *-ile* suffix to polysyllabic verbs whose stems end in [l, z], the nasal [n] and the [-ibw-] for passive. MB1 is used elsewhere. Table 2.1 provides examples to illustrate the MB1 and MB2 in Runyankore.

Table 2.1: MB1 and MB2 in Runyakore

Stem/root	Gloss	-ile suffixation MB1	MB2
<i>-gamb-</i>	say	<i>-gamb-ile</i>	<i>-gamb-ile</i>
<i>-taah-</i>	go home	<i>-taah-ile</i>	<i>-taah-ile</i>
<i>-shutam-</i>	squat	<i>-shutam-ile</i>	<i>-shutam-ile</i>
<i>-twaal-</i>	take	* <i>twaal-ile</i>	<i>twaile</i>
<i>-teel-</i>	hit	* <i>teel-ile</i>	<i>teile</i>
<i>-shemezibw-</i>	be pleased	* <i>shemezibw-ile</i>	<i>shemeziibwe</i>

Table 2.1 has demonstrated how *-ile* suffix conditions the so-called ‘modified base’ in Runyakore. MB2 in Runyakore does not involve fusion (coalescence) rather gliding and vowel shortening are involved. Based on the data presented in Table 2.1, in Runyakore, MB2 in the verb like *-twaal-* ends in forming a diphthong [ai] which is allowed in the language.

Kahigi (1988) points out that a survey of the Bantu grammar books or handbooks shows that the perfective *-ile* form is one of the few forms that have undergone some interesting changes since its Proto-Bantu *-ide* form. The change of this perfective suffix began with the loss of the consonant [l] of the suffix. According to the author, this is a natural phonological change. The naturalness of this change has to do with the phonetic relationship between *l and *i, in the realm of articulation. The articulation relationship between the two phonemes is that, there is a rising of the front part of the tongue in the direction of the hard palate; the body of the tongue thus approaching the position which is used for pronouncing the [i]. The dropping of [l] before [i] has an assimilatory effect. As pointed out by this author, the loss of [l] has a long history across Bantu languages as this kind of consonant suffers loss even in other contexts apart from the perfective *-ile*. For instance, loss of [l] has been observed in other contexts and here the author illustrates the loss by comparing five Bantu languages which are Sumbwa, Ganda, Ankore, Haya and Swahili as presented in example (10).

(10).	Sumbwa	Ganda	Ankore	Haya	Swahili	gloss
	<i>a-line</i>	<i>a-lina</i>	<i>a-ina</i>	<i>a-ina</i>	<i>a-na</i>	s/he has
	<i>tu-line</i>	<i>tu-lina</i>	<i>tu-ina</i>	<i>tu-ina</i>	<i>tu-na</i>	we

have

The examples provided in (10) illustrate the loss of [l] appearing before the high front vowel[i] in Ankole and Haya, as well as the total loss of [l] and [i] in Swahili language is concerned. Also, the data presented by Robinson (2016) indicate that [l] is disappearing in noun class 5 in Nyakyusa. Normally, in this language, as well as across Bantu languages, *-li-* is the class 5 prefix which is now disappearing as exemplified in (11).

- (11) a) *i-li-ino likubhabha* ‘the tooth is aching’
 b). *i-θ-jabhu lipiile* ‘the cassava is cooked’
 c). *i-θ-bhangala likulila* ‘the bell rings’

The examples provided in (11) show the loss of *-li-*, the class 5 prefix in Nyakyusa. Apart from a mere historical loss of [l] across Bantu languages, Kahigi (1988) asserts that the change that involves *-ile* suffixation in Sumbwa began with the loss of [l]; the consonant of the perfective suffix as exemplified in (12).

(12)	Stem	-ile suffixation	surface form	gloss
	<i>sangana</i>	<i>sanganile</i>	<i>sangeene</i>	<i>has met</i>
	<i>galama</i>	<i>galamile</i>	<i>galeeme</i>	<i>has laid</i>

The Sumbwa data presented in (12) show that the *-ile* suffix triggers imbrication to these verbs where [l] has been lost. In this context, *-ile* suffix modifies the verbs to which it is attached. This is a common phenomenon of phonological change in Bantu linguistics. For example, the modified words such as *sangeene* and *galeeme* as presented in example have been subjected to a couple of phonological processes.

Kula (2001, 2003) also described the phonological impact of *-ile* suffix in Bemba. The author points out that apart from regular suffixation of the perfect suffix *-ile*, under some conditions; *-ile* suffix can modify the verb base to which it is attached. In this regard, the author identifies both regular and irregular suffixation of *-ile*

suffix. She identifies the verbs with CV- roots such as *pi-a* ‘burn’ to have regular suffixation of *-ile* suffix as in *pile* ‘has burnt’ and *fu-a* ‘die’ into *fwiile* ‘has died’. Other verbs with regular suffixation include those with (C)V(N)C-, CVNCV-, C(G)V:C- and CVCVNC- roots. Another interesting phonological property that *-ile* suffix has in Bemba is vowel harmony as illustrated in (13).

- (13) a. *pet-a* ‘fold’ *petele* has folded
 b. *noon-a* ‘sharpen’ *noonene* ‘has sharpened’
 c. *tiin-a* ‘be afraid’ *tiin-ine* ‘has been afraid’
 d. *béleng-a* ‘read’ *béleng-ele* ‘has read’

The examples provided in (13) indicate that *-ile* suffix induces vowel harmony in that, the root that contains a mid vowel takes *-ele* while *-ile* is used elsewhere. Concerning imbrication, Kula (2001) provides examples of the irregular verbs in Bemba (non-extended verbs) as exemplified in (14).

- (14) a. C(G)V: V *by-aal-a* ‘plant’ *by-éel-e* ‘has planted’
 b. C(G)V:C- *fw-aal-a* ‘dress’ *fw-éel-e* ‘has dressed’
 c. CV:C- *k-aan-a* ‘refuse’ *k-éen-e* ‘has refused’
 d. CVC(G)- *fil-w-a* ‘be unable’ *fil-il-w-e* ‘has been unable’

On top of the examples provided in (14), Kula (2001) points out that extended verbs condition imbrication in Bemba. Based on the Bemba data, Kula generalizes that imbrication cannot be characterized as based on the size of the base, since both short and long bases condition the process. Also, Kula points out that imbrication in Bemba involves three processes, namely vowel fusion or gliding, loss of segmental content in the perfect suffix, the consonantal [l] and a discontinuous flow of the perfect suffix, since the initial *-i-* and the final *-e* of the suffix are separated by the root final consonant, which is non-suffix material. While Kula mentions some unxtended and extended verbs to condition imbrication in Bemba, Kotzé (2008) points out that the condition for imbrication in Northern Sotho depends on the number of syllables of the verb stem. The author identifies two types of verb stems, namely simple verbs and extended verbs. According to Kotzé (ibid), the extended verbs are the ones that undergo imbrication after attaching the *-ile* suffix.

Rugemalira (2005) in the *Grammar of Runyambo* described the phonological impact of *-ire* suffix. In Runyambo the suffix induces a phonological change which technically is known as imbrication. The *-ire* suffix triggers imbrication depending on the size of the stem, the final consonant and/or the type of morpheme already attached. The regular *-ire* stem involves simple affixation of *-ire/-ile* to the verb root and no imbrication is attested. However, *-ire* suffixation triggers imbrication, and it is the vowel [a] of the reciprocal suffix that imbricates and the size of the stem (three syllables as opposed to two syllables) which is the longer stem. Table 2.2 demonstrates regular and irregular *-ire* suffixation in Runyambo.

Table 2.2: Regular and irregular suffixation in Runyambo

Verb	Gloss	<i>-ire</i> suffixation	Surface form
<i>koma</i>	tie	kom-ire	<i>kom-ire</i>
<i>saasa</i>	hurt	saas-ire	<i>saasire</i>
<i>tiina</i>	fear	tiin-ire	<i>tiinire</i>
<i>huuna</i>	growl	huun-ire	<i>huunire</i>
<i>rwara</i>	be sick	*rwar-ire	<i>rweire</i>
<i>taana</i>	separate	*taan-ire	<i>teine</i>
<i>zaana</i>	play	*zaan-ire	<i>zeine</i>
<i>kázana</i>	strive	*kázan-ire	<i>kazeine</i>
<i>tánaka</i>	vomit	tának-ire	<i>tanacire</i>

Table 2.2 has shown examples of both regular and irregular *-ire* suffixation in Runyambo. As Rugemalira (2005) pointed out earlier, the perfective suffix *-ire* may modify the verb root depending on the size of the stem, the final consonant and/or the type of morpheme already attached. The verbs whose stem has two syllables as illustrated by the example in the first row of Table 2.2 do not imbricate. However, verbs with longer stems than two syllables whose final consonant is not [k] imbricate in Runyambo as demonstrated by the example in the fourth row while verbs whose final consonant is [k] do not imbricate rather *-ire* induces c-mutation. On top of the examples presented, Rugemalira also points out that extended verbs condition imbrication in Runyambo. Yet the output forms in Runyambo such as in the words; *kazeine*, *rwair* and *zaine* would involve further modification through a

phonological process called ‘vowel coalescence just like in other Bantu languages such as siSwati (Harford & Malambe, 2017). This implies that the phonological change is gradual and the conditions as well as the stages reached vary significantly from language to language.

Generally, the argument made behind the reviewed studies on the modified base and/or imbrication is that, the phonetic shape of *-ile* suffix becomes blurred when it is suffixed to some verbs. However, the conditions and/or phonological processes shaping imbrication vary from language to language. For instance, in some languages (such as Bena), only extended verbs condition imbrication while in other languages (such as Runyambo and Bemba), extended verbs and some unextended verbs condition imbrication. On top of that while in some languages (such as Runyankore and Runyambo) stem size is one of the important conditions for imbrication (Mould, 1972; Rugemalira, 2005), in languages such as Bemba size of the verb stem does not matter since there are short verbs that imbricate (Kula, 2001). Also, some phonological processes shaping the change involving imbrication are common in some languages while in the other languages are not. For example, vowel coalescence is one of the phonological processes that shape imbrication in siSwati (Harford & Malambe, 2017). However, vowel coalescence is not involved in Runyambo (Rugemalira, 2005). These variations on conditions and phonological processes shaping imbrication across the reviewed studies suggest that across Bantu, languages undergo innovation regarding phonological properties of *-ile* at a different pace.

Another phonological change induced by *-ile* across some Bantu languages apart from imbrication is the consonant mutation⁸ (C-mutation). However, the C-mutation caused by *-ile* in Bantu languages seems to be very rare as a number of studies such as Myers (1994), Kula (2001), Rugemalira (2003), Bostoen (2008) and Robinson (2016) mention the short causative suffix **i* to be the principal driving agent for this phonological change. Only a few studies such as Muzale (1998) have pointed out that *-ile/-ire* suffix causes C-mutation. Consonant mutation (C-mutation) is a morphophonemic process often accompanying affixation in which affixes induce

⁸C-mutation sometimes is called spirantization (Kula, 2000).

phonological changes in the consonants of verb bases (Spencer & Zwicky, 1998). For a thorough grasp of the concept of C-mutation, it is worth presenting in the following paragraph the description of C-mutation in terms of its diachronic development across Bantu languages.

Scholars associate the historical development of C-mutation across Bantu with a process called 7vowel (7V) to 5 vowel (5V) merger. Therefore, vowels are the main cause of C-mutation in Bantu. For instance, in Many Bantu languages the right-edged C-mutation is attracted by the vowels which are the short causative *-i, the agentive *-i and *-u (Hyman, 2003; Robinson, 2016) as well as the vowel of the perfective suffix *-ide/*-ite/ *-ile (Bugingo, 1984; Muzale, 1998; Labrouiis, 1999; Rugemalira, 2005). Labrouiis points out that the 5V-language normally experience full spirantization (C-mutation) whereas the 7V-language experience limited spirantization. For example, in Rungu (M14) and Fipa (M13); the 5V languages, both the vowel of the causative extension and the vowel of the past tense/perfect suffix (-ile) induce spirantization whereas in Nyakyusa (M31, 7V), the vowel of the past tense/perfect suffix (-ile) does not induce spirantization. Also, the verbs to which the agentive *i would induce spirantization in other languages, Nyakyusa experiences non-spirantizing tendency. Synchronic data for Nyakyusa in (15) show predominance of this non-spirantizing tendency after attaching an agentive vowel.

(15)	Stem		Agentive
a.	-bhomb-a ‘work’	→	umbomb-i ‘a worker’
b.	-keet-a ‘see’	→	unkeet-i ‘eye witness’
c.	-poka ‘save’	→	umpok-i ‘savior’

So far as the examples presented in (15), Labrouiis (1999) maintains that in some languages the agentive is added to the verb stem and then the derived output forms would involve spirantization, that is the word *bhomb-a* ‘work’ would change into *umbomf-i* ‘a worker’. Robinson (2016) points out that the agentive vowel *-u induces C-mutation in Nyakyusa as exemplified in (16).

(16)	Verbs	*u	noun	gloss
	<i>fujuka</i> ‘be insane,	/fujuf-u/	<i>u-mu-fujuf-u</i>	‘inferior’
	<i>konyoka</i> ‘be broken’	/konyof-u/	<i>u-mu-konyof-u</i>	‘a stupid one’
	<i>suuka</i> ‘be blunt’	/suuf-u/	<i>u-mu-suuf-u</i>	‘a blunt object’
	<i>lulala</i> ‘be still’	/lulaf-u/	<i>u-mu-lulaf-u</i>	‘a lazy one’

The examples provided in (16) have demonstrated how the agentive vowel *u induces C-mutation in Nyakyusa where the [k] and [l] change into [f]. The mutation caused by the super close vowels *u is sometimes called ‘spirantization’, that is an obstruent and the liquid [l] become a fricative; affecting the manner of articulation. Also, In Nyakyusa, the super close vowel *u affects the place of articulation such as in [k>f] and [l>f].

The mutation caused by the vowel of the T/A suffix across Bantu is rare. However, a few languages demonstrate this phonological change (C-mutation involving *-ile* suffixation). For example, according to Meeussen (1959), the perfect suffix *-ye*⁹ in Kirundi mutates [t] into [z] as in *-hit-* ‘to pass’ into *hize*. Also, the data presented by Muzale (1998) show that the vowel of the T/A suffix (*-ire*) induces C-mutation in Rutara languages, for instance, the word *gura* ‘buy’ changes into *guzire*.

Generally, based on the reviewed literature, three phonological changes have been identified as induced by *-ile* suffix across Bantu languages. Neither these phonological changes nor the driving conditions of these changes are homogeneous across all Bantu languages. The reviewed studies indicate that some patterns of *-ile* processes are more advanced than others. For instance, while in some languages such as Runyambo imbrication ends up with diphthong formation [ai], in other languages such as siSiswati and Bemba imbrication goes beyond that of Runyambo into vowel fusion/coalescence [ee]. Likewise, regarding C-mutation, in some languages particularly the 5V languages, the vowel of *-ile* suffix induces full spirantization whereas in languages with 7V system, the vowel of the suffix induces limited spirantization.

⁹This is a form of *-ile* suffix in Kirundi after being accompanied by a wide variety of consonant changes which strongly indicate that the vowel of the suffix was originally the super close of Proto-Bantu (Mould, 1972).

In terms of its morphological properties in marking tense/aspect, *-ile* suffix has also undergone interesting changes across Bantu languages (Nurse & Phillipson, 2006; Botne, 2010). The traditional role of this suffix was to mark perfective (Mkude, 1974; Bastin, 1983; Kahigi, 1989; Nurse, 2008) as one of the categories of aspect (Lyons, 1968). For this view, *-ile* suffix started its life in Bantu as an aspect marker. However, currently, the suffix receives different labels in different studies which are different from its traditional label (perfective). For instance, Kotzé (2004), (2008) regard *-ile* as a past tense suffix in Northern Sotho. Also, Hyman (1995) regards *-ile* as both a perfective and/or a past tense suffix in Cibemba. This implies that it is difficult to overgeneralize the role of *-ile* suffix unless close attention is paid to an individual language.

Also, one of the challenges in specifying the properties of *-ile* suffix in relation to tense and aspect marking emanates from the controversy in the use of the term perfective. While scholars such as Oden (1996) and Kahigi (1989) use the term perfective to refer to the role of *-ile* suffix, others use different terms. For instance, Kula (2001), (2003) and Bostoen (2008) use the term perfect over perfective to refer to the role of *-ile* suffix. In Turamyomwe (2011) both terms perfective and perfect have been used interchangeably. Muzale (1998) and Hewson, Nurse and Muzale (2000) use the term retrospective to refer to the Rutara aspect marker *-ire*. Beaudoin-Lietz (1999) uses the same term retrospective to refer to morpheme *-me-* in Swahili. Also, Nurse (2003) points out that the anterior which is also called perfect or retrospective is primarily expressed by reflexes of the Proto-Bantu *-ide*. This creates a terminological bifurcation (departure) as far as the traditional label for the suffix *-ile* is concerned. In this regard, it is worth presenting in the following subsection the meaning of tense versus aspect and perfective versus the terms associated with it including perfect, anterior and retrospective.

2.2.2 The Concepts of Tense and Aspect

To specify the properties of *-ile* suffix in the verb morphology, it is worth presenting the concepts of tense versus aspect, on the one hand, and perfective versus perfect, on the other hand. To start with the term tense, Lyons (1968) points out that the term ‘tense’ is derived from Latin translation of the Greek word for ‘time’. In the same

view, Comrie (1976) defines tense as the grammaticalised expression of location in time. Also, Spencer and Zwicky (1998) define it in the same way that tense is an inflectional category of morph-syntactic properties distinguishing a finite verb's temporal reference. The essential characteristic of the category tense is that it relates the time of the action, event, or state of affairs referred to in a sentence to the time of utterance.

In the definition of tense presented in the paragraph above two claims hold. The first claim is that tense is a morphological property of the verb that is inflected in the verb, and the second claim is that tense has to do with time relations denoting events or situations that move from past, present and future. Based on the morphological point of view, languages differ in the way they inflect for tense. For instance, Spencer and Zwicky (1998) point out that Latin verbs inflect for three tenses, namely past (*laudābam* 'I praised'), present (*laudō* 'I praise') and future (*laudābō* 'I will praise'). However, the English verbs inflect for two tenses which are past and non-past (Lyons, 1968). The fact that tense is a morphological property inflected in the verb renders tense and time in the English language to have a slight difference. In this language, there are three-time distinctions, namely past time, present time and future time. The past and present time are denoted by the past tense and present tense respectively. The difference between tense and time is manifested in the future where it is not the property of tense rather it is the property of time. The English future time is not always morphologically inflected in the verb. There are different ways in which the future in English is expressed. These ways include the simple present, use of modal verbs such as *will* and *shall*, the continuous and the *be going to* as exemplified in (17).

- (17) a. The president arrives next week
 b. The president is going to make a public speech
 c. I will visit my uncle next week
 d. It is going to rain

Contrary to tense, aspect refers to an inflectional category of the verb that indicates whether an event, state, process or action denoted by the verb is completed or in

progress (Katamba, 1993). The term aspect was translated from a Russian word *vid* referring to the distinction of perfective and imperfective (Lyons, 1968). Therefore, the main categories of an aspect according to Lyons are perfective and imperfective. The tree diagram in figure 2.1 has been modified by Comrie (1976) to illustrate different aspect categories.

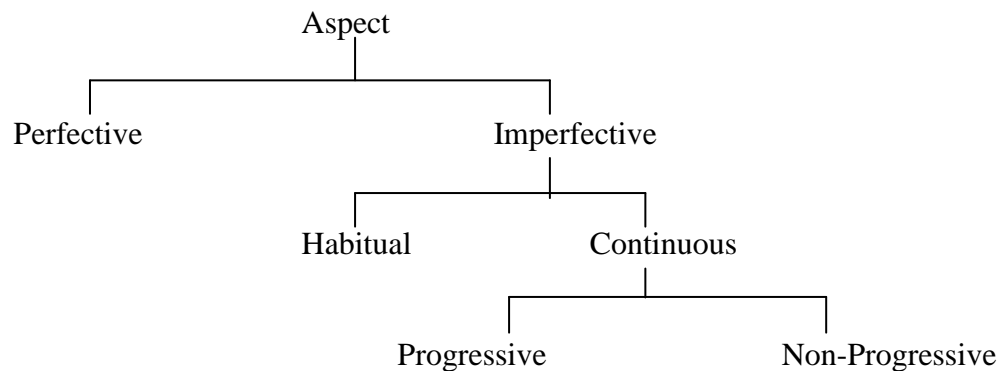


Figure: 2.1: Aspect Categories

Source: Comrie (1976)

From figure 2.1, aspect involves three subsequent distinctions. The first one is the perfective-imperfective distinction, where the imperfective is further subdivided into two, that is habitual aspect and continuous aspect, and finally, the continuous aspect is further sub-divided into progressive and non-progressive. According to Lyons (1968), non-progressive involves verbs which do not normally occur with progressive aspect, even in those contexts in which the majority of verbs necessarily take the progressive forms. Lyons demonstrates the non progressive aspect using English stative verbs such as *think, love, know, understand, hate, see, taste, feel, possess* and *own*.

In identifying different aspect categories, Nurse (2003) points out that the Latin terms such as continuous, progressive, habitual, iterative, imperfect, imperfective, generic, performative, persistent/perstitive, perfect, perfective, complete, conclusive, anterior, retrospective, resultative, aorist, etc., are confusing and less transparent than simple terms such as past, present, or future. According to Nurse (ibid), a survey of the literature on languages worldwide suggests three widespread aspectual categories: imperfective, contrasting with perfective, and anterior. Also,

progressive and habitual are widespread worldwide, but less so. These five categories also occur widely across Bantu although they are less transparent. To make them more transparent, Nurse suggests reducing aspects to a few major categories (and labels!). In this view, Anterior is treated in the same way as perfective, retrospective and perfect.

Since *-ile* suffix was traditionally an aspect marker (perfective), it is important to concentrate more on the meaning of perfective for a good grasp of the changing roles of the suffix across Bantu languages. Nurse (2008) points out that perfective can be defined semantically as representing a situation as complete, as a single bounded whole, regardless of its internal structure or its constituent phrase. In this regard, according to Nurse, perfective answers wh-questions such as ‘when did you see X? Or ‘when will you see X? To which the answers ‘I saw her this morning/yesterday’ or ‘we will see her next week’ that is presenting the seeing as a single event. For this reason, the definition of perfective is not restricted to the past event but is used to refer to the future as well as the present. Lyons (1968) points out that the term perfective is somewhat similar to the notion of ‘completion’ found in Greek. The definitions made by both Nurse and Lyons referring to the notion of completion of an action carried out by the term perfective are controversial as they intersect with that of tense. Spencer and Zwicky (1998) highlight this controversy by pointing out that semantically there is a conceptual overlap between the categories of aspect and tense; for instance, an event which is described in aspectual terms as having come to completion by a particular time (perfective) can likewise be described in temporal terms as a past event relative to that time. In attempting to overcome this challenge of tense-aspect overlap, scholars such as Kula (2003) and Bostoen (2008) prefer the term perfect to perfective. On top of that, Bybee and Dahl (1989) regard perfect as similar to anterior. Therefore, two more terms are associated with the term perfective.

Also, Besha (1989) points out that the problem of tense-aspect overlap causes a serious challenge in the analysis of tense and aspect in English. For instance, in different grammar books aspect has been fused with tense, and thus having numerous tenses such as present continuous tense, present perfect tense, past

continuous tense, past perfect tense, future tense e.tc. This analysis regards tense as a cover term for tense and aspect following the difficulty in distinguishing between the two concepts (Mreta, 1998). In distinguishing tense from aspect, Besha (1989) points out that English has two tenses, namely past tense and present tense. She proposes two ways that can help us distinguish tense from aspect. The first way is the use of the Reichenbach linear theory that captures the complex structure of tenses by postulating them into three-time points. It is with this theory where each language may define its number of tenses and thus proving that the meaning of tense is language-specific. The second way that Besha proposes and she applied it in the analysis of tense and aspect in Shambala is the use of temporal adverbials. These temporal adverbials help in making connections between the tense forms and actual temporal location of situations in the real world.

Generally, both tense and aspect are grammatical categories inflected in the verb in relation to time but they offer different slants on time. While tense allows speakers to relate situations relatively to some points in time, most likely the time of speaking, aspect is not associated with the location of an event in time, but with temporal distribution (Dahl, 1985; Saeed, 2003). In this view, the notion of anterior which coincides with that of perfective or perfect implies that the completive situation occurs closer to the time of speaking in a simple sentence otherwise a compound or complex construction would apply. In English the present perfect is independent but the past perfect and the future perfect cannot stand alone. Lyons (1968) illustrates this argument through examples in (18).

- (18) a. I have read the book
 b. I had read the book
 c. I will have read the book

The second and third sentences in (18) denote past perfect and future perfect respectively. These sentences require another sentence to complete their senses. But the first sentence denotes present perfect and can stand alone in English to complete its sense. This sentence occurs closer to the time of speaking and so it implies an anterior aspect. According to Comrie (1976), the anterior/perfect denotes a situation

that started in the past but continues to the present. For this reason, to specify the role of *-ile* suffix, we need to distinguish between the simple past and the perfect/anterior. In this regard, the English anterior/perfect and simple past can be symbolically distinguished as in figure 2.2 versus figure 2.3.



Figure 2.2: Simple past

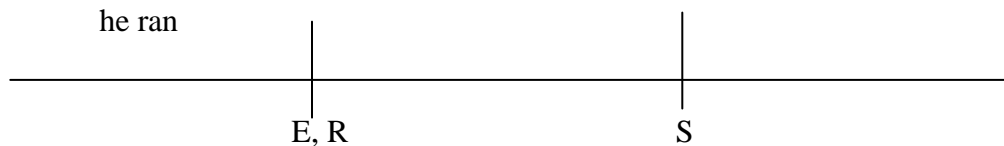


Figure 2.3: Anterior /present perfect

The present perfect/anterior may thus be contrasted with a simple past tense, in that with anterior, the reference-time and speech-time have the same relative positions whereas, in the simple past, reference-time has the same position with the time of the event.

So far, the discussion has assumed that there is an instance when both the past tense and perfective aspect can stand alone across Bantu languages. To the timeline, the perfective aspect stands alone when it is placed closer to the time of speaking (anterior) but the posterior is somewhat connected to tense categories. Michaelis (2006) provides examples in (19) to illustrate this argument.

- (19) a. *The crowd has moved to plaza*
 b. *The crowd had moved to the plaza when the police showed up.*

As we can see, the first sentence denotes present perfect and it is independent. But the second sentence has two clauses; the first clause carries the past perfect form but it can stand alone otherwise the second clause is made.

Generally, the conception of tense and aspect presented in this subsection has been done by referring three Indo-European languages (Latin, Russia and English). In these languages, it has been noticed that there is a significant variation in the tense and aspect distinctions across these languages. For instance, while Latin inflects for three tenses, English has two tense distinctions. This observation suggests that the meaning of tense and aspect is language-specific. Therefore, the meaning of tense and aspect should not be over-generalized across natural languages; instead, the concepts should be treated accordingly especially when dealing with different languages. The following subsection presents the meaning of tense and aspect with specific attention to Bantu languages.

2.2.3 Tense and Aspect in Bantu Languages

Generally, the notion of tense and aspect in Bantu languages is different from other languages found elsewhere. Studies indicate that Bantu languages have a larger number of TAM markers than the Indo-European languages (Polome, 1967; Lyons, 1968). Nurse (2008) stresses on the complexity of TAM in Bantu languages by pointing out that it is possible to compare the number of aspects found in Bantu languages to that found elsewhere, but the number of distinctive tenses across Bantu languages is unusual.

The unusual number of distinctive tenses is a result of innovation that speakers have made on the past and the future. For instance, Nurse (2008) illustrates tense complexity and innovation made across Bantu languages by pointing out that over 80 per cent of the matrix languages (the selected Bantu languages) have more than one division of past tense. Over 70 per cent have two or three past tenses, 10 per cent have four past tenses and only 17 per cent have a single past. The innovations made on future tenses according to the author are different; 56 per cent have a single or no future, 41 per cent have two or three and very few languages have four future tenses. It should be noted that the multiple tenses in Bantu languages resulted from a historical change deviating from the Proto-Bantu.

The change that involves TAM systems varies significantly across Bantu languages. For instance, some languages such as Swahili identify three tenses (Whiteley, 1972;

Kiango, 2000), whereas others such as Kikuyu (Spencer & Zwicky (1998) and Runyambo (Rugemalira, 2005) have up to six tenses, namely far past, yesterday past, today past, present, near future, and far future. All these tenses involve inflectional morphemes morphologically inflected in the verb.

The change involving tense and aspect in Bantu linguistics can be talked about in two ways, namely the change in prominence and change in encoding. Nurse (2008) maintains that traditionally, Bantu languages were aspect prominent. However, many languages according to Nurse have multiple tenses as a result of speakers' innovations exerted on the past tense and the future tense.

Also, Nurse and Phillipson (2006) demonstrate the change in the way tense and aspect are encoded across Bantu languages. The authors point out that traditionally, Bantu languages encoded tense by pre-root morphemes (prefixes) and aspect by post-root morphemes (suffixes). However, today there are variations on how tense and aspect are encoded across Bantu languages. The authors maintain that while some languages have maintained the Pro-Bantu encoding system, others have changed thus they encode both tense and aspect using pre-root morphemes (prefixes). Also, there are Bantu languages which encode tense and aspect by a combination of morphemes appearing before and after the verb root.

The change in tense/aspect prominence and encoding system across Bantu languages has affected the role of *-ile* suffix. For instance, for the languages that encode both tense and aspect using the pre-root morphemes (prefixes) have discarded the *-ile* suffix. Also, the languages that encode tense and aspect by a combination of morphemes appearing before and after the root affects the roles of the *-ile* suffix as an aspect marker into marking tense or both tense and aspect. Therefore, the current study argues that the change involving *-ile* suffix has its cause roots in the general changing behaviour of tense and aspect systems.

Since tense and aspect systems are language dependent (Besha, 1985), it is important to consider some studies on tense and aspect in individual Bantu languages. The review of these studies is based on languages found in three zones, namely Zone E involving Rutara languages (cf. Muzale, 1998), and Kikuyu (cf.

Nurse, 2008), Zone G involving languages such as Swahili G42 (cf. Beaudoin-Lietz, 1999; Kiango, 2000), Shambala G23, (cf. Besha, 1985:1989), Chasu G22 (cf. Mreta, 1998) and Zone M involving Nyakyusa M31 (cf. Lusekelo, 2007; Robinson, 2015; Persohn, 2017). Therefore, the following subsections provide a detailed discussion of tense and aspect systems in some languages of Zones G, E and M. Attention is given to the position of the *-ile* suffix in these languages.

2.2.3.1 Tense and Aspect Systems in Proto-Rutara and Kikuyu

Muzale (1998) carried out a descriptive study of tense and aspect systems in eight languages selected from the Rutara sub-family (the East African Bantu languages spoken by communities located between Lakes Victoria, Kyoga, Albert and Edward). The description involved cognitive approach targeting two specific issues; first the analysis of the various meaning of tense and aspect (TA) systems and the second; a comparison of the T/A systems across the Rutara languages. The findings show that Rutara languages display complex TAM systems. The maximum of five tense divisions have been identified from the sample of eight Rutara languages¹⁰. These include; remote past, near past, memorial present, near future, and remote future. The identified tenses have inflectional morphemes inflected in the verb. For example, the remote past in all the eight languages is marked by morpheme *-ka-* as in *tu-ka-gura* in Runyambo. This morpheme denotes the event that took place before yesterday. Therefore, in Rutara languages the remote past does not involve *-ile/-ire* suffix.

In distinguishing tense from aspect, the work by Muzale (1998) identifies two separate levels of forms for tense and aspect as indicated in (20).

- (20) Level I: {- θ -...-a}
 {-aa-...-a}
 {- θ -...-ire}
 {-aa-...-ire}
 {-kiaa-...-a}
- Level II: {-ka-...a-}, {-a(a)-...-a}, {-raa-...-a}, {-ri(a)-...-a}

¹⁰The selected languages are Runyoro, Rutooro, Runyankore, Rukiga, Runyambo, Ruhaya, Ruzinza and Rukerebe

From the forms presented in (20), Level I is made up of aspect forms and level II involves tense forms. Concerning *-ire* suffix, out of the five forms in Level I, two of them contain *-ire* suffix but in the first form *-ire* occurs alone as in *tu-θ-guz-ire* ‘We have bought’ (Runyoro/Rutooro/Runyankore/Rukiga). In the second one, *-ire* co-occurs with pre-root formative *-aa-* as in *tu-aa-guz-ire* ‘We have already bought’ (Runyankore, Rukiga, Runyambo, Ruhaya, Ruzinza, Rukerebe). However, all Level II forms in Rutara languages do not have *-ire* suffix. This implies that *-ire* suffix in these languages is originally an aspect marker.

In terms of the morphological changes involving *-ire* (*-ile*) suffix, Muzale points out that although Runyoro and Rutooro maintain the form (*-θ-...-ire*) for aspect, as in *tu-θ-guz-ire* ‘we have bought’, the languages modify the form to (*-θ-...-ire-ge*) when it represents a tense category. In this view, *-ire* suffix marks tense in these Rutara languages. Also, in the same view of change, he argues that the perfect formative (*-ire*), which is an aspectual marker has extended its usage to function as tense. He demonstrates this change through the word *gura* ‘buy’ which after attaching the suffix it becomes *tu-θ-guz-ire* ‘we bought (yesterday)’. Here the suffix occurs alone without the pre-root formatives and it may denote both perfective and yesterday past.

Also, Hewson, Nurse and Muzale (2000) carried out a study on tense in Ruhaya; one of the Bantu languages forming the Rutara sub-family. The study reveals a complex tense system in the language as it exhibits up to six tenses which are far past/before yesterday (*tú-ka-gura* ‘We bought), Near past/yesterday (*tu-θ-guz-ire* ‘we bought’, Memorial present/earlier today (*tu-áá-gura* ‘We bought’), experiential present (*tu-θ-gúra* ‘we buy’), near future/later today and tomorrow (*tu-raa-gúra* ‘We will buy’) and far future (*tu-ri-gúra* ‘we will buy). The authors have brought in terms related to tenses which are slightly different from the commonly used ones across Bantu languages. For instance, the term memorial present which is marked by *-áá-* in Ruhaya has been used as an anterior in other literature or for scholars who use tense as a cover term for tense and aspect, the memorial present is symbolically written as P1. Also, the term experiential present resembles a simple present tense in other literature. Concerning the role of the suffix, the authors maintain that in Ruhaya, *-ire*

suffix marks both perfective and retrospective. However, these authors admit that the distinction between perfective and retrospective is very slight.

Kikuyu language represents Bantu languages with complex TAM systems as it has up to six tense distinctions (Johnson, 1977). This complexity of tense systems is a result of speakers' innovation where the past tense is divided into three and the future into two. The author adopts the terms; hodiernal past, hesternal past and pre-hesternal past in the place of today past, yesterday past and remote past as exemplified in (21).

- (21) a. Hodiernal Past: *Mwangi nĩainire*.
Mwangi nĩ-a-θ-in-ire
 Mwangi ASRT-3sgS-HOD-dance-PST.PRV
 Mwangi danced (today).
- b. Hesternal Past: *Mwangi nĩarainire*.
Mwangi nĩ-a-ra-in-ire.
 Mwangi ASRT-3sgS-HEST-dance- PST.PRV
 Mwangi danced (yesterday).
- c. Pre-Hesternal Past: *Mwangi nĩāinire*.
Mwangi nĩ-a-a-in-ire.
 Mwangi ASRT-3sgS-PHEST-dance- PST.PRV
 Mwangi danced (some time before yesterday).

In all the past categories presented in (21), *-ile (-ire)* suffix is the main candidate. In marking today past, the suffix occurs alone whereas in marking yesterday past, the suffix co-occurs with the pre-root formative *-ra-* and the remote past is marked by the suffix co-occurring with the formative *-a-* appearing before the root. However, the author specifies the role of the suffix *-ire* as marking perfective and thus the constructions; *-θ-...-ire* (today past), *-ra-...-ire* (yesterday past) and *-a-...-ire* (remote past) stand for past perfective. Given the scope and focus of study, Johnson (1977) has not shown how simple past is marked in this language different from the

forms for perfective aspect. In this view, Johnson's analysis treats tense as the cover term for tense and aspect.

2.2.3.2 Tense and Aspect in Shambala, Chasu and Swahili

The first study to be reviewed in this subsection is that of Besha (1985), (1989) who studied tense and aspect in Shambala. The goal of the study was to distinguish which among many markers in Shambala are tense markers, which are aspect markers and which are the manifestation of other grammatical categories. One of the contributions of her study is the emphasis on the relevance and the importance of modifying Reichenbach's theory respectively to suit an individual language. The study entails that tense and aspect are morphological properties of the verb, and since every language is unique in this aspect, modification of the theory is vital. Regarding the *-ile* suffix, it is noted that the suffix has disappeared in Shambala, as Besha (1989) points out that the perfective in Shambala is marked by morpheme *-i-* occurring before the root.

Also, Mreta (1998) conducted a study on tense and aspect in Chasu, the Bantu language spoken along the mountain ranges known as 'the Pare Mountains' found in the north-eastern part of Tanzania. This language is registered in zone G and coded G 22. The goal of the study was to provide a systematic account of tense and aspect. Given the scope and goal of his study, Mreta has not clearly shown how the perfective aspect differs from the category of tense. Based on the data presented by Mreta, *-ile* suffix has been reduced into *-ie*. According to the author the *-ie* form marks completive action. Also, Mreta regards the anterior/perfect and the perfective as different concepts. For instance, it is indicated that the anterior is marked by *-á* form with the high tone (but the same form with a low tone expresses present or progressive in Chasu). Examples in (22) demonstrate uses of the Chasu *-á*, *-a* and *-ie* forms.

- (22) a. *eim-á* she has already cultivated
 b. *eim-a* s/he cultivates or s/he is cultivating
 c. *eim-ie* s/he cultivated

Based on the examples in (22 a & b) with their English glosses it is convincing to conclude that the role of the suffix *-ie* (*-ile*) is changing from being an aspect marker to being a tense marker (marking past tense) as the example in (22c) indicates.

Swahili (G 42) has undergone remarkable changes as far as tense and aspect are concerned. In this language, both tense (past, present and future) and aspect (habitual, perfective and imperfective) are marked by morphemes appearing before the verb root (Kiango, 2000; Rieger, 2011; Hamad, 2011; Lusekelo, 2016). Polome (1967) demonstrates the three tense distinctions in Swahili. According to this author, formative *-li-* indicates the verbal process in the past versus time reference, *-na-* is used when the action is taking place at the effective moment of speaking, and *-ta-* situates the verbal process in the future versus time reference as exemplified in (23).

- (23) a. *ni-li-lim-a* *shamba langu jana*
 SM-PST-cultivate-FV field my yesterday
 ‘I cultivated my field yesterday’
- b. *watoto* *wa-na-chez-a* *kiwanjani*
 Children SM-Pres-play-FV playground
 ‘children are playing in the playground’
- c. *ni-ta-lim-a* *shamba langu kesho*
 FUT-cultivate-FV field my tomorrow
 ‘I will hoe my field tomorrow’

Two issues can be noted from the examples provided in (23). First, it is noted that different tenses (past, present and future) are expressed by individual markers occupying the same position, particularly, slot 4 of the Swahili verb template. Second, it is noted that temporal adverbials such as *jana* ‘yesterday’ and *kesho* ‘tomorrow’, play a vital role in Swahili to supplement the tense markers.

Despite the fact that tense and aspect are hard to distinguish such that many Bantuists choose to use tense as the cover term (Mreta, 1998), Kiango (2000) has been able to identify tense categories as well as aspect categories in Swahili. The tense categories are present, past and future whereas the aspect categories are perfective,

habitual and conditional. Kiango points out that *-me-* is the marker for perfective in Swahili and it indicates that the action is completed at the time under reference, but its result is effectively present. For example, the sentences; *ni-me-sikia* ‘I have heard’ and *msafiri a-me-fika* ‘The traveller has arrived’ denote perfective aspect in Swahili.

The perfective marker *-me-* in Swahili is formed from *-ile* suffix through a long historical processes of grammaticalization. Therefore, Swahili is one of the Bantu languages where the suffix *-ile* has disappeared. This conclusion has also been made following the presence of *-ile* suffix in some Swahili dialects, namely Kiamu and Kibajuni as they use *-me/-ile* and *-indo/-ile* respectively for perfective aspect (Mazrui, 1983). Heine and Reh (1984) reveal that the perfective prefix *-me-* originated from the word *mala* ‘finish’ whose underlying form was *malile* ‘has finished’. Muzale (1998) demonstrates the stages in which the Swahili perfective *-me-* has passed from its Proto-form *malile* through grammaticalization process as shown in (24).

(24)	Proto form <i>Mala</i> “finish”	<i>Mala+ile = mal-ile</i> “has finished”
	Underlying form	<i>tu-mal-ile ku-soma</i> “we have finished to read”
	Loss of [l]	<i>tu-maile ku-soma</i>
	Vowel coalescence	<i>tu-meele ku-soma</i>
	Loss of [l]	<i>tu-mee-e ku-soma</i>
	Auxiliary grammaticalization	<i>tu-mee ku-soma</i>
	Vowel shortening	<i>tu-me kusoma</i>
	Loss of the infinitive	<i>tu-me-soma</i>
	Surface form	<i>tu-me-soma</i> “we have read”

Therefore, the historical development of the perfective markers *-ile* to *-me-* in Swahili, has passed through several stages that is, *mal-ile*→*meele*→*me*. This observation suggests that the perfective marker *-me-* is a simplified form of *meele*. In the suffix’s development, several phonological processes were involved. They include deletion of the [l], vowel coalescence and vowel shortening.

Swahili has fused the two tense/aspect slots (pre-root and post-root) into one slot preferably the pre-root slot. The fusion of tense and aspect slots in Swahili indicates speakers' innovation and simplification made across history. It should be noted that having two separate slots for tense and aspect is more demanding and complex than fusing the two slots.

Also, as a way of distinguishing tense from aspect, Hewson, Nurse and Muzale (2000) identified aspect markers different from tense markers in Swahili. The authors group the tense and aspect markers in levels, whereby Level I involves aspect markers *hu*, *me* and *ka* for habitual and perfective. Level II involves tense markers *li*, *na* and *ta* for past, present and future. On top of that, to solve the problem of tense-aspect distinction, Nurse (2008) points out that the past tense marker *-li-* and perfective marker *-me-* cannot co-occur in a single verb, otherwise, a compound construction is needed, and the past tense is marked in the first word and perfect(ive) aspect is marked in the second word, as exemplified in (25).

- (25) a. *a-me-fariki*
 SM-has-die
 ‘He has died, is dead’
- b. *a-li-kuwa* *a-me-fariki*
 SM-PAST-be SM-has-die
 ‘He had died’
- c. *a-ta-kuwa* *a-me-fariki*
 SM-FUT-be SM-has-died = He will be he has died
 ‘He’ll have died/be dead’

From the Swahili examples in (25), the co-occurrence of tense and aspect involves compound construction of two words, where the first word in (25b) carries a tense marker *-li-* for past and second word carries an aspect marker *-me-* for perfect(ive) aspect. The same applies to future perfect (ive) in (25c) where the first word carries the tense marker *-ta-* and the second word carries an aspect marker *-me-* which according to Nurse (2008) it marks perfect in Swahili. The fact that ‘tense’ and ‘aspect’ markers in Swahili cannot co-occur in a single verb is a good example of

the merger of tense and aspect; that for many Bantu languages, even if we accept the claim that tense and aspect were originally distinct, they have progressively merged and become indistinguishable.

2.2.3.3 Tense and Aspect in Nyasa-Tanganyika Corridor

As far as zone M is concerned, several studies have been conducted on tense and aspect in which *-ile* suffix is one of the candidates. The languages which are the target in this context include Nyakyusa, Ndali, Nyiha (selected languages in zone M in which the study on tense and aspect has been conducted) and some other languages surrounding the languages under investigation.

Starting with Nyakyusa, Lusekelo (2007), (2013), Robinson (2015) and Persohn (2017) studied tense and aspect systems in the language with different approaches and focus. For instance, the first study conducted by Lusekelo in 2007 sought to describe the Nyakyusa tense/aspect systems with the focus of specifying the meaning of tense/aspect formatives. The second study conducted by the same author in 2013 modified and expanded the previous one by adding a new chapter on negation in Nyakyusa and also expanding the theoretical approach by including another model, that is time and cognitive space model. This author has tried his level best to present tense and aspect systems in which *-ile* suffix is a part as well as stipulating the relevance of different theories to the study of tense and aspect which are still influential in the current study.

In his description of tense and aspect systems, Lusekelo (2007) points out that Nyakyusa has up to four tenses, namely remote past, recent past, present and future. According to Lusekelo, remote past is marked by *-a-...-ile* form with *ijolo* ‘long time’ as its temporal adverbial, recent past marked by *-θ-...-ile* with *nulubhunju* ‘morning’, present marked by *-ku-...-a* form with *lilino* ‘today’ as its temporal adverbial and future marked by *a-...-ku-...-a* form with *kilabhu* ‘tomorrow’ as its temporal adverbial. The analysis made by Lusekelo which shows four tense distinctions in Nyakyusa implies that the tense/aspect forms with aid of temporal adverbials can extend their functions. For instance, the *-θ-...-ile* form alone expresses anterior (see Robinson, 2015) which is an aspect category while the same

form with *nulubhunju* ‘in the morning’, a temporal adverbial expresses today past which is part of tense categories.

Robinson (2015) conducted a study on the extent to which *-ile* suffix can become a candidate for tense-aspect distinction in Nyakyusa. In his analysis, he identified three tense categories in Nyakyusa which are past, present and future. His analysis is slightly different from the analysis made by Lusekelo (2007). While Lusekelo identifies four tense categories in Nyakyusa, Robinson identifies three categories. In the study by Robinson, we identified some clues on the morphological evolution of *-ile* suffix. The first clue detected was the disappearance of the suffix in negative construction. The disappearance of *-ile* suffix when the negative marker *-ka-* is introduced suggests that the suffix is evolving. The second property detected was the dependence of the Nyakyusa formatives including the *-ile* suffix. Here most of the formatives in Nyakyusa do not stand alone rather they co-occur with other pre-root formatives to accomplish their role in the verb. Thus, this property assumed that the role of *-ile* and/or other formatives that co-occur may not be the same across time and languages.

Persohn (2017) sought to present the Nyakyusa verb. In his analysis, Persohn regards the \emptyset -...-*ile* construction as not denoting anterior rather it denotes perfective in Nyakyusa. For this case, according to him, the Nyakyusa perfective aspect ranges from past perfective (*-a*-...-*ile*) as well as present perfective. This kind of analysis leaves a lot of questions since it does not say anything as far as the construction for simple past tense is concerned in Nyakyusa. Also, it shows that tense (past tense) and aspect (perfective) markers can co-occur in a single Nyakyusa verb. The fact that the *-a*-...-*ile* construction denotes past perfective contradicts with the analysis made by Lusekelo (2007) and Robinson (2015) who regard the same construction as marking past tense.

As far as Ndali is concerned, Swilla (1998) conducted a study on tenses in Chindali. Also, Botne (2003) studied tense, realis and location in the Chindali verb. Although these studies did not systematically pay an individual attention to *-ile* suffix, the data presented by them give a highlight on the evolving nature of the suffix. First of all,

both studies show that *-ile* suffix is one of the candidates for tense/aspect marking. Also, the data presented by these authors show that the suffix exists in two forms, that is *-ite* form and *-ile* form.

Kershner (2002) conducted a study on tenses of Sukwa a language related to Ndali. Sukwa represents Bantu languages with complex TAM systems. The language has multiple tenses following speakers' innovation on the past tense and future tense. Kershner suggests modifying the linear model that suits the Sukwa paradigms of past tenses as illustrated in figure 2.4.

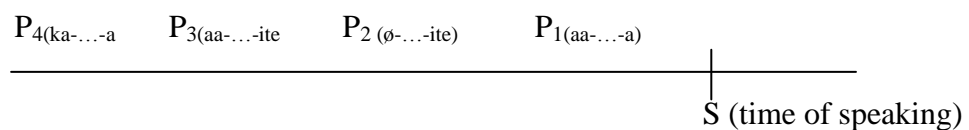


Figure 2.4: Sukwa paradigms of past tenses

Source: Kershner (2002).

The Sukwa paradigm of past reference (using P model) suggested by Kershner (2002) becomes influential in Bantu linguistics, particularly when presenting tense systems for languages with multiples past tenses. However, the model regards tense as a cover term for tense and aspect following the challenge in making demarcation between tense and aspect.

Asheli (2013) wrote a grammatical sketch of Shinyiha seeking to describe the language in the realm of morphology, phonology and syntax. In that grammar book, the author highlighted some issues regarding tense and aspect. The data presented in this book show that *-ile* suffix is one of the inflectional categories of the Shinyiha verb. Therefore, the suffix draws interest in both morphology and phonology.

Generally, one of the key differences between the previous studies conducted in corridor languages and this study is that the current study is comparative. It applies a comparative method to investigate historical evolution of *-ile* suffix in the realm of inflectional morphology and phonology across four Bantu languages forming the Nyasa-Tanganyika corridor.

2.2.4 Synthesis and research gap

The section on literature review has highlighted some issues regarding the evolving nature of *-ile* suffix. The reviewed studies show that the suffix is phonologically and morphologically evolving across Bantu languages. Phonologically, the reviewed studies show that *-ile* suffix induces phonological changes (imbrication and C-mutation) under varying conditions. Also, the phonological processes shaping the phonological changes vary from language to language. For instance, while verb extensions are regarded as the only condition for imbrication in some languages such as Bena, the data presented by Mould (1972), Kula (2001) and Rugemalira (2005) show conditions for imbrication beyond verb extensions in Runyakore, Bemba and Runyambo respectively. Also, while imbrication in some languages such as Bemba (Kula, 2001), siSwati (Harford and Malambe, 2017) is shaped by fusion/vowel coalescence, in other Bantu languages such as Runyambo the change ends up with diphthong formation. These variations imply that languages undergo phonological change involving *-ile* suffix at a different pace, where some patterns involving *-ile* process are more advanced than the other.

Morphologically, the reviewed studies show that Bantu languages have complex TAM systems compared to the Indo-European languages such as English and Latin. This complexity is mainly caused by innovations made on the encoding of tense, aspect and mood. Some Bantu languages such as Rutara languages (Muzale, 1998) encode up to six tenses. These innovations on the encoding of tense and aspect have affected the traditional role of *-ile* suffix across Bantu languages. In this regard, it is now not clear whether the suffix is a tense or an aspect marker across Bantu unless a close investigation is made on an individual language.

2.3 Theoretical Framework

The study seeks to investigate the historical evolution of *-ile* suffix to account for the changing morphological and phonological properties. For this reason, the study is an aspect of historical linguistics¹¹ that is concerned with describing language change

¹¹Historical linguistics is a branch of linguistics which is concerned with language change

which is both a synchronic and diachronic phenomenon¹². Given the nature of the study, the Theory of Utterance Selection (TUS) guides the analysis of the general changing properties of the suffix whereas Reichenbach's and Guillaume's Cognitive Theory specifically guide the analysis of tense and aspect.

2.3.1 Theory of Utterance Selection

The Theory of Utterance Selection which was developed by Croft (2000) gives explanation about how languages change. As a theory of language change (Evans & Green, 2006), it takes its inspiration from the neo-Darwinian evolution theory with four key concepts, namely **replicator** (an entity possessing structure that can be passed on), **interactor** (an entity that interacts with its environment so that replication occurs), **selection** (the process whereby replicators are differentially perpetuated i.e. some replicators are more successful than others) and **lineage** (an entity that persists over time due to replication).

Croft (2000) points out that although language is conventional; (in that speakers and hearers follow some conventions in the way they use language or that these conventions allow speakers to express meanings that are recognized by others in the same linguistic community) language change is stronger than these conventions. That is for language to change, language users must break a convention through innovation and this innovation then must undergo propagation, which means that the change spreads through the linguistic community and becomes established as a new convention. In other words, language change begins with system of conventions and passes through innovation, then propagation and finally creating new conventions. Figure 2.5 illustrates the model showing a process of language change.

¹²A synchronic view of language examines the properties of language at a specific discrete point in time while the diachronic one considers language properties over a period of time (Campbell, 1999).

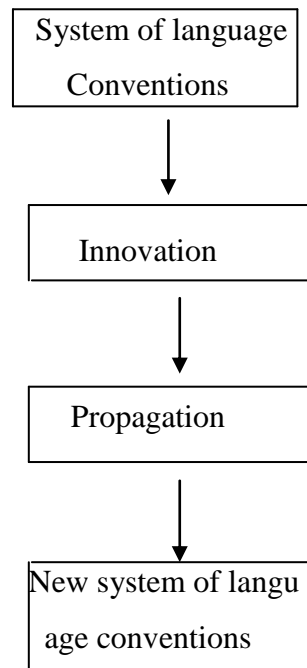


Figure 2.5: Model of language change

The argument presented in the previous paragraph and the illustration provided in figure 2.5, suggest that language must change despite being conventional. However, as far as language change is concerned, the theory of Utterance Selection is of the assumption that languages do not change; instead, people change language through their actions. In other words, languages are changed by the way people use the language. One of the maxims of the theory of Utterance selection in connection to language change as proposed by Keller (1994) is ‘talk in such a way that you do not expend superfluous energy’. This is to say, speakers should use as little energy as possible when talking. Akidah (2013) points out that language change is caused by speakers as they often articulate words much more economically leading to reduction of speech. In this view, that is why speakers exert innovations on languages subconsciously making utterances look simpler than before. The innovations can be witnessed in phoneme reduction (e.g. seven to five vowels in Bantu languages) and different structural simplifications.

Generally, as speakers speak their respective languages, they impose changes and generate rules in an interesting and paradoxical way such that these speakers of these languages often do not notice the rules and language changes (Hayes, 2009). To analyze these changes and the resulting rules, the following procedures need to be

taken into account, first; data gathering and observation, second; making some generalization about patterns in the data, third; developing hypotheses that account for these generalizations and testing the hypotheses against more data and finally, the hypotheses should be revised to account for any new data and will be tested again to develop optimal generalization (See Carnie, 2007).

The nature of the study necessitates the analysis of the concept of tense and aspect within which *-ile* suffix is associated. Therefore, the Reichenbach's and Guillaume's Cognitive Theory will guide analysis of the conception of tense and aspect as elaborated in the following subsection.

2.3.2 The Reichenbach's Linear Theory

The Reichenbach's Linear Theory provides a framework for the understanding of the concepts; tense and aspect. The linear theory takes its inspiration from Reichenbach (1947) who associates tense and aspect in natural language with systems of time reference, distinguishing three distinct temporal reference points in an utterance; the "point of speech" (S), the "point of reference" (R), and the "point of the event" (E). Therefore, tense as a morphological property of the verb, can be defined using a point of reference illustrating the points into three major tense divisions as illustrated in figure 2.6.

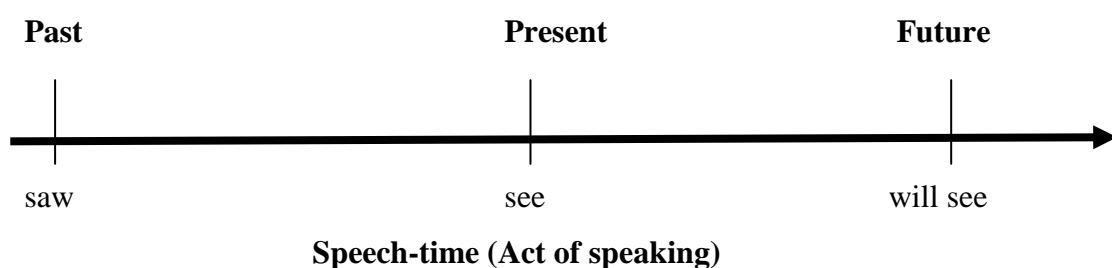


Figure 2.6: Three major tense divisions

Source: Saeed (2003).

From figure 2.6 and with reference to the three points of reference defining tenses, each of the tense division can symbolically be represented in figure 2.7.



Figure 2.7: Past tense

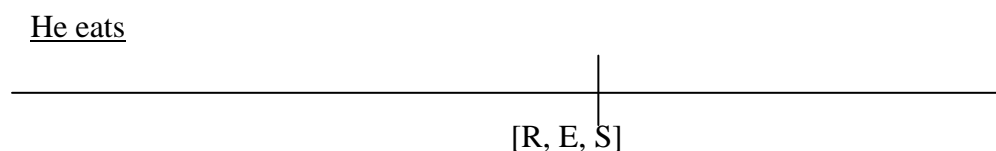


Figure 2.8: Present tense

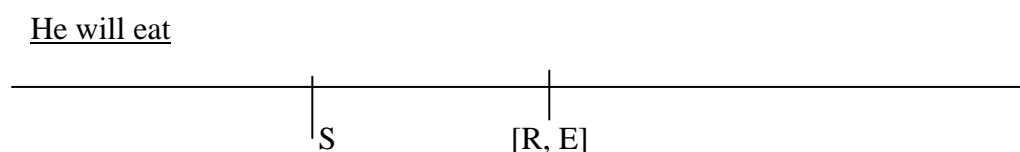


Figure 2.9: Future tense

From the figures presented in (2.7), (2.8) and (2.9), the past is symbolically $-[R, E]-S$ implying that both reference point and event time occur before (precede) speech moment whereas the future tense is symbolically represented as $S-[R, E]$ implying that both reference point and event time occur after speech moment. Finally, the present tense represented as $[R, E, S]$ implies that reference point, event time and speech moment occur together.

The theory is deemed relevant to this study because it provides a framework for the analysis of tense/aspect in which *-ile* suffix is a part. One of the usefulness of the theory is that it clears the contradictions in the view of English tense distinctions. If one was taught grammar in school, s/he may have been told about numerous tenses such as present tense, past tense, future tense, present continuous tense, present perfect tense and the same for past and future. But using this theory that revolves around the fact that tense is a morphological property of the verb; therefore, we can identify morphemes marking for two tenses in the language which are past and present. The future is not a property of tense rather it is the property of time.

The relevance of the theory has been emphasized by Ranamane (2009) who points out that Reichenbach's (1947) analysis is, in general, very strong because it

accommodates tense structures that do not exist in English and despite disadvantages that the model has, its formalization of tense in terms of speech time, reference time and event time has exerted a huge influence on subsequent analyses of tense and aspect and still enjoys wide support today. In order to analyze the morphological properties of *-ile* suffix, the theory sensitizes the researcher to pay attention to morphological forms that denote the past, present and future in the selected languages.

However, in some instances, there are morphemes which might have more than one function in the verb. Sometimes there might be no any explicitly tense marker in the verb (Muzale, 1998), unless the speakers are conscious of the context in which the verb has been used. By relying on explicit morphemes for tense and aspect, it is difficult for this theory to address circumstances where in a particular verb there is no any morpheme that marks tense meanwhile the verb indicates a particular grammatical time as speakers may be aware of. Also, it is difficult for this theory to address the ambiguity of some morphemes that may be seen to be marking either tense or aspect. Therefore, the need for cognitive theory arises.

2.3.3 The Guillaume's Cognitive Theory

The cognitive theory originates from the work by Guillaume in 1984 (Muzale, 1998). The underlying thesis of the theory (as modified by Muzale), is that a language develops tense formatives depending on the speaker's mind in making time partition in the universe. Therefore, tense and aspect are cognitive properties. Tense divisions are constructed in the speaker's mind and they are elements of time in relation to events and actions which are cognitively based; thus, they depend solely on cognitive processes in the mind under human consciousness. This claim is supported by Nurse (2008) who points out that tense and aspect systems are cognitively based, not direct representations of events in the real world. According to this author, various verbal categories do not directly reflect the events or objects of this world, but they rather reflect human organization, human categorization of these objects and events. These categories have a strong cognitive component. Regardless of their morphological exponence, tenses and aspects have certain

- [illegible]

Muzale (1998) therefore points out that a cognitive approach addresses these morpho-semantic problems better than other approaches and it is for this reason that it is adopted in this study. In this view, in the course of data collection and analysis it is worth going beyond verbal structures with explicit tense markers. To achieve this, Besha (1985) advocates the importance of using temporal adverbials in the course of data collection for tense and aspect.

2.4 Chapter Conclusion

This chapter has presented the review of studies to account for the phonological and morphological status and position of *-ile* suffix across different Bantu languages. Also, since *-ile* suffix may be associated with either tense or aspect across Bantu languages, the chapter necessarily provided explanation on the two concepts (tense and aspect) with their conceptual overlapping cross linguistically and across Bantu languages. Moreover, the chapter has presented three theories one of which provides the understanding of the concept of language change and the other two provide the framework for the understanding of specific concepts of tense and aspect. These theories generally provide guidance on the kind of data needed to answer the problem under investigation as well as the analysis of these data. But the information about research design, area of the study and data collection techniques has been provided in the next chapter.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter describes the methodological issues of the study. The chapter begins by describing the research design, area of the study by focusing on its geographical location and the rationale for selecting the area for data collection. Also, the chapter presents the sampling procedures, data collection techniques and the procedure for data analysis.

3.2 Research Design

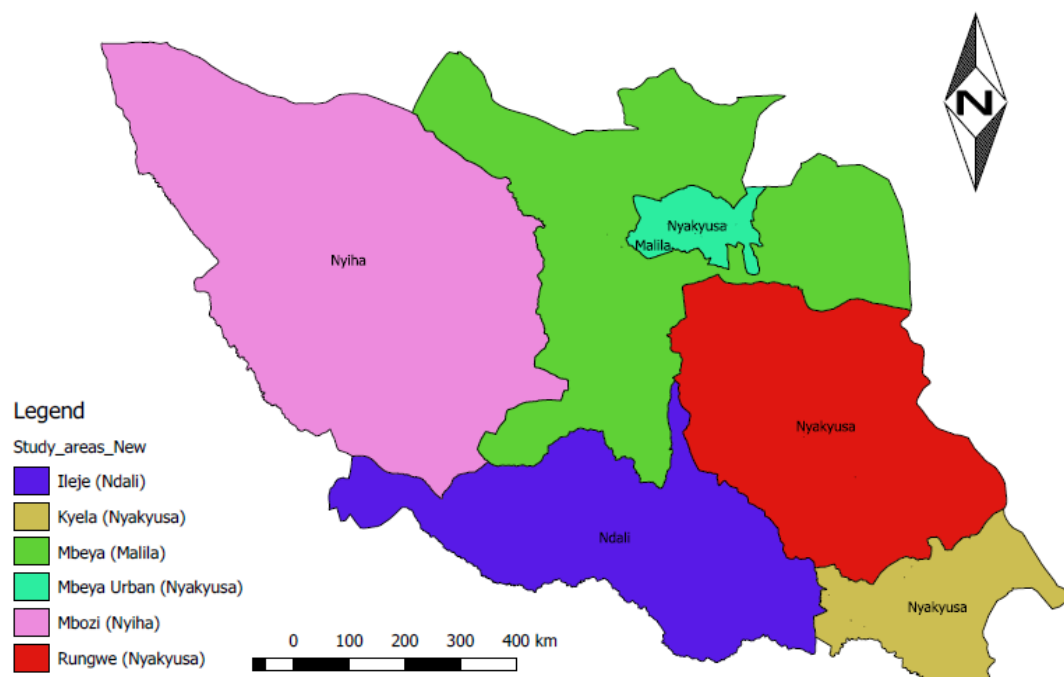
A research design is an important part of research as it acts as a blueprint or a plan that specifies sources of data, data collection techniques and data analysis (Kothari, 2004; Rasinger, 2010). The current study applies a descriptive research design which seeks to describe what and how a particular phenomenon (the historical evolution of *-ile* suffix) happens. According to Burns and Grove (2003), descriptive research is designed to provide a picture of a situation as it naturally happens and it may be used to justify the current practice, make a judgement and develop theories. One of the advantages of the descriptive design is that it acts as a good tool in writing a descriptive grammar which in turn contributes a lot to language documentation (Austin, 2006). Being more of descriptive than theoretical, this work is of paramount importance in providing data for further studies.

Since this study is more of a qualitative (descriptive) design, it necessitated data to be collected using different techniques in triangulation. The data collection techniques involved the use of available written texts (e.g. grammatical sketches, the Holy Bible, dictionaries), wordlist/sentences, narrative stories and interviews.

3.3 Area of the Study

Dimmendaal (2001) points out that when linguistic research takes place in a natural setting where the language under investigation is spoken rather than at one's home university, has consequences for the endeavour as the researcher becomes part of the social network in the speech community. In understanding that, the study was conducted in two regions, namely Mbeya and Songwe. In Mbeya region, data were

collected in Kyela district (Talatala and Ipinda wards), and Mbeya Rural Council (Ilembo), while in Songwe region; the data were collected in Ileje (Isoko and Isongole villages) and Mbozi districts (Iporoto village of Bara ward). It is in these specified areas where the selected languages are predominantly spoken. Therefore, it was possible to easily find native speakers of the languages who were the important informants for this study. Map 1 shows the areas (districts) where data for this study were collected.



Map 3.1: Data collection Areas

3.4 Sample and Sampling Procedures

The study applied a purposive sampling in selecting informants. In purposive sampling, the researcher purposively targets a group of people who are believed to be reliable for the study (Kombo & Tromp, 2006). Fluency in the languages under investigation was the main criterion for selecting the informants. To ensure that the selected informants were fluent in the languages under investigation, the researcher considered a couple of issues. First, the researcher selected the research area where there is minimal population mobility such as at Iporoto village (Mbozi), Isoko (Ileje). Also, he asked native speakers who were born, got their primary education and grew up in the community where the languages under investigation are spoken.

Therefore, during data collection, a total of sixteen informants (four from each of the four languages) who are adult native speakers, fluent in the languages were involved. For Malila, out of the four informants, three were working on Bible translation at SIL office located in Mbeya town, and one out of the three his office was based in Ilembo (Mbeya Rural). The two Malila informants working at SIL's office in Mbeya town were very important for translating the wordlist. Also, the Malila informant found at SIL's office in Ilembo was involved in the interview. The fourth Malila informant (about 65 years old) was asked to narrate the story about how people in Malila used to make fire and cultivate pyrethrum.

For Ndali, out of four informants, two were also working with SIL at Mbeya town. These two played a vital role in translating the wordlist (verbs and sentences) and recommending other suitable informants found in Ndali area. The third Ndali informant (60 years) was asked to narrate a story about how people in the past used to make and keep fire. This informant was born in Ileje District, grew up and got his primary education in the same area. The last informant (55 years) was meant for interviews and he was born at Ndembo (Ileje District), grew up and got his primary education in the same area.

For Nyiha, out of the four informants, one of them was born in Igamba division, got his primary education in the same area. The informant's age was between 50 and 60 years and this informant is fluent in Nyiha and he can also speak Swahili. This informant was involved in interviews. Another informant involved was born at Iporoto village in Mbozi, grew up and got his primary education in the same village. The informant's age was between 40 and 50 years and this informant narrated a story about the changes in the cultivation of coffee over twenty past years. The last Nyiha informant was born in Iporoto village as well; he got his primary education in the area. Apart from Nyiha, the informant can also speak Swahili. This informant helped in translating the wordlist.

For Nyakyusa, all of the four informants live in the neighbouring villages called Talatala and Ipinda. One of the four informants is about 43 years old, and the second one was 42 years old and the last two their age ranges from 40 to 50 years. These

informants were born in the same villages, grew up and got their primary education in the same area. One of the aforementioned informants narrated a story about the changes in the mode that farmers used to sell their cocoa since the late 1980s. The second informant translated the wordlist/sentences and the last two were involved in interviews.

3.5 Data Collection

This study involved four data collection techniques in triangulation that is to say; the limitation of one technique was cleared with another one. Since the research design of this study is more of descriptive, a single data collection technique would not be sufficient to get the information needed. Therefore, more than one technique was employed as elaborated in the next subsections.

3.5.1 Written Texts

Scholars have established that background reading particularly reviewing written texts is an important tool when preparing oneself for the field (Dimmendaal, 2001; Vaux & Cooper, 2003). For this reason, written texts served as an important tool when the researcher was preparing himself for the field. The researcher collected a lot of data from the available texts such as dictionaries and the draft translations of the Holy Bible portions by SIL (available online; www.nyakyusalanguage.com, www.ndalilanguage.com, www.nyihalanguage.com, www.malilalanguage.com) written in the languages under investigation. These texts provided some data that helped the analysis of how different tenses and aspects are encoded in these languages, conditions for imbrication and C-mutation. Apart from providing data, the texts guided the whole process of data collection, particularly the creation of wordlist and interview questions.

However, one of the limitations of this data collection strategy is that over time languages do change. Therefore, sometimes some constructions become old fashioned such that speakers of the languages would say these sentences are no longer in our language. For this reason, it was necessary to use another data collection technique to supplement the written texts.

3.5.2 Wordlist/sentence list

Data were collected through wordlist and sentence list. The wordlist constituted a list of 200 words (see appendix 1) modified from the Swadesh list (see Vaux & Cooper, 2003) and many others words from the available written texts such as the Nyakyusa Dictionary (cf. Felberg, 1996) and the Grammatical Sketch of Shinyiha (cf. Asheli, 2013). From Swadesh, 16 verbs were picked, translated into Swahili and were modified into different tenses that is past, present and future to be able to observe the properties of *-ile* forms across the selected languages. The informants were asked to translate the words into their respective languages. The wordlist provided data mainly for the analysis of the phonological properties of *-ile* suffix that helped an explicit identification of *-ile* forms in isolation to help in determining the morpho-phonological processes taking place.

Also, data were collected through a list of 120 sentences (see appendix 2) in the four languages. The sentences were written in Swahili and the informants were asked to translate them into their respective languages. The sentence list provided data for the analysis of tense and aspect to account for the changing morphological properties of *-ile* suffix in the four languages under study.

Two informants from each of the four languages under the study translated the Malila list of verbs and sentences. However, the data become not self-sufficient to capture all the questions under investigation.

3.5.3 Narrative

Two stories were narrated in Malila by one of the informants. The first story was about how the Malila used to make fire in the past days and the second one was about the pyrethrum cultivation in Malila land. From the two narrative stories, 77 verbs were identified. These verbs provided clues for different past constructions in which *-ile* suffix is part. Also, the verbs become very important in uncovering the conditions under which the *-ile* suffix induces phonological changes.

Additionally, one narrative story was narrated in Nyiha by a man whose age ranges from 40 to 50. The story was about how people in Nyiha society used to cultivate coffee right from preparing the farm, planting, weeding, harvesting, processing and

selling. From this Nyiha story, 50 verbs were identified that were important for the role of *-ile* and its phonological changes.

Another story was narrated in Ndali by a man with the age ranging from 60 and above. The story was about how Ndali people used to make fire in the past days. Out of this story, 35 verbs were identified which become very important for the analysis of the roles of *-ile* and its phonological properties. The last story was narrated in Nyakyusa. The story was about how people used to sell their cocoa before and after the 1990s. In the Nyakyusa story, a total of 65 verbs were identified and analysed.

These narrations were recorded using a voice recorder, transcribed and given Swahili glosses. During translating the narrative stories, the researcher¹³ sought the assistance of native speakers who are fluent in Swahili. There are several advantages of this strategy. First, this strategy enabled informants to speak freely in their voice, hence encouraging the natural flow of data without any manipulation. For instance, when the informants were asked to say a particular sentence in their respective languages, they sometimes tended to manipulate some words in the sentence to resemble that of Swahili words. In other words, there were relatively more Swahili words in translated sentences than in narratives. For example, in Ndali, the word *leeta* 'bring' in translated sentences was replaced by *twala* with the same meaning in the narrative. Second, the narrative becomes an alternative data collection strategy suitable for a particular type of informant. For instance, it was difficult to ask some elder to translate some Swahili words or sentences into their respective languages; instead, it was easier and they enjoyed narrating different events. The third advantage is that narratives provided data that could sometimes be hard to get using other techniques. For instance, through the wordlist, we observed that *-ile* suffix induces C-mutation to some words that end with the voiceless alveolar stop [t] in Nyiha; to be confident with this generalization more data for these verbs were needed. But it is not easy to ask informants find the said verbs, rather it was easy to

¹³ The researcher is a native speaker of Nyakyusa. He stayed in Nyiha speaking community (Iporoto village in Mbozi) from 1996 to 1997 and in Ndali speaking community (Isongole Village in Ileje District) from 2007 to 2012. Therefore, he can somehow understand Nyiha and Ndali though he is not fluent.

identify them from the narrated texts. Then we went on checking the constructions with *-ile* suffix through the interview method.

However, narratives had limited constructions with explicit *-ile* suffix as denoting past or perfect. For this reason, there was a need to use another data collection technique to supplement it.

3.5.4 Interview

This technique was used as a follow-up tool to ascertain some constructions for making a plausible conclusion. With this data collection technique, several oral questions were posed to informants. The technique was used to cross-check the acceptability of some constructions and to ascertain the limits of distribution of some elements in the respective languages. For example, based on the objectives of this study, there was a need to collect more data about the way *-ile* suffix behaves phonologically when it is attached to verbs of different structures. On the morphological properties of *-ile* suffix, interview was used to ascertain the context in which different tense/aspect forms are used to mark different tense/aspect categories in the four languages. Also, the technique was motivated towards the analysis of some aspects of linguistic systems that possibly could have not been attained using written texts, narratives and wordlist, yet they are necessary to answer the questions under investigation. The common question as far as this data collection technique is concerned was ‘how do you say X (a particular sentence or word in Swahili) in your language?’ Then the informants’ responses were recorded using a notebook. The data collected through interview enabled the analysis of the morphological properties of *-ile* suffix, the way *-ile* suffix phonologically behaves when attached to different verbs to illustrate the phonological change involving the suffix.

3.6 Data Analysis

This study employed a descriptive framework to analyze the data. The analysis process took different stages as follow: At the early stage of analysis, the recorded data were transcribed and written down using standard orthography as proposed by Rugemalira *et. al* (2012). This was done immediately after the recording to be able to counter check with the informants when necessary. Then verbs from narrative

stories were sorted to identify verbs with *-ile* suffix and those without the suffix. The verbs of different size were then retested using the interview technique to account for the morphological and phonological impact that *-ile* suffix might have to these verbs.

Generally, the verbs collected using wordlist, written texts, narratives and interview were analyzed based on what their parts and slots expressed by way of depicting their structure and examining the semantic functions within the languages i.e. prefix-SM- negative-TA- root and post-root formatives. After that, tense and aspect markers were coded and identified based on their position and role in the verb. More attention was given to the morphological and phonological properties of *-ile* suffix across the selected languages.

3.7 Validity and Reliability

The concepts of reliability and validity have played a vital role in enhancing quality in any research. Reliability refers to consistency of research results over time or it refers to replicability of results which means the extent to which another researcher can reach the same conclusions by following the same research process (Taylor, Sinha & Ghoshal, 2011). Validity seeks to determine whether the research truly measures that which it was intended to measure or how truthful the research results are (Golafshani, 2003). Generally, these two concepts (Validity and Reliability) share the same goal which requires that the researcher develops habits in using the methods and procedures that have been managed to reduce human error or bias and thus leading to trustworthiness and consistency of the research results.

To ensure trustworthiness and replicability of the findings, two strategies were taken into account during data collection process and analysis. First, the researcher employed four data collection techniques in triangulation. Secondly, the researcher employed member-check strategy. With this strategy, the findings were brought back to at least one informant from each of the four selected languages. Then the informants were asked to check for the accuracy of examples (sentences, words) used in this research report.

3.8 Ethical Considerations

The component of research ethics¹⁴ has been given primary consideration since the onset of this study. Observation of research ethics in this study takes two modes. The first mode involves following formal procedures as required by the institution (UDSM) and the second mode involves the behaviour of the researcher when selecting and interacting with the informants.

Starting with the former, the researcher followed formal procedures since the proposal writing stage. After the approval of the proposal by the Higher Degrees Committee at the college level, the researcher applied for a research clearance on 9th January 2019. Then, the researcher obtained the research clearance letter from the Vice-Chancellor of the University of Dar es Salaam on 17th January 2019. The clearance letter introduced the researcher to two regions, namely Songwe and Mbeya. In Songwe region, the researcher spent three days waiting for the research permit to be issued by the Regional Administrative Secretary (RAS). The RAS then wrote a letter to introduce the researcher to the District Executive Directors (DED) of two Districts which are Mbozi and Ileje. From the directors' office, the researcher obtained a letter that allowed him to conduct research (data collection) in the intended villages. Also, in Mbeya region, the researcher obtained a research clearance from the RAS introducing him to District Executive Directors of Kyela and Mbeya Rural Council. Some of these introduction letters have been shown in appendix 4.

Regarding researcher-informant relationship, only informants with consent to participate were involved. After selecting informants, the researcher introduced the purpose of the study, kind of data needed and the importance/value of the information (data) to be gathered from them. Also, the researcher asked beforehand

¹⁴Ethics as rooted in the ancient Greek philosophy is the branch of philosophy which deals with the dynamics of decision making concerning what is right and wrong (Fouka & Mantzorou, 2011). Generally, research ethics involve requirements on daily work, the protection of dignity of subjects and publication of the information in the research.

for the informant willingness whenever recording of data using a sound recorder was needed. Finally, the researcher assured the informants that the information provided by them would be used for the study only.

3.9 Limitation

In the course of data collection, most of the speakers particularly of two languages out of the four selected ones were very reluctant to offer their time to provide data necessary for this study. Many of these speakers said, ‘We do not know the language in deep and for this reason we cannot be part of your work’. This caused the researcher to spend a lot of time selecting and looking for informants. Eventually, the researcher sought help from the SIL office in Mbeya branch under Dr. Helen Eaton, the coordinator. At SIL office, the researcher was able to find native speakers who are fluent in the languages. These speakers have been recruited and trained by SIL to undertake a descriptive activity of Bible translation for languages in the Nyasa-Tanganyika corridor. Therefore, these speakers were important informants involved in this study.

3.10 Chapter Conclusion

This chapter has described the research methodology of the study by focusing on several issues, namely research design, area of the study, sample and sampling procedures, data collection techniques, data analysis procedures, validity and reliability, research ethics as well as limitation. The next two chapters present data and discuss the findings.

CHAPTER FOUR

EVOLVING PHONOLOGICAL PROPERTIES OF *-ILE* SUFFIX

4.1 Introduction

This chapter presents the evolving phonological properties of *-ile* suffix. It has been pointed out in chapter one that across Bantu languages, the *-ile* suffix is phonologically evolving and through its evolution, it triggers several phonological changes. In this regard, this chapter responds to the first objective which sought to describe phonological changes associated with *-ile* suffixation across selected Bantu languages in the Nyasa-Tanganyika corridor. Based on the findings, this chapter describes three phonological changes which are the change in the phonetic forms of *-ile* suffix, imbrication and consonant mutation.

4.2 Change in the Phonetic forms of *-ile* Suffix

This subsection presents the phonological change involving *-ile* suffix by reconstructing its forms resulted from its historical development since the Proto-Bantu. It has been pointed out in chapter one that across Bantu languages, *-ile* suffix manifests itself in different phonetic shapes, that is, *ide/-ida/-ite/-ile/-ire/-ie/-ye/-e*. The analysis of the *-ile* forms across the languages under study so far was guided by three questions. First, what are the common forms that exist in the languages under study? Second, what conditions restrict the use of one form over the other when two or more forms of *-ile* exist in a single language? Lastly, which one can be reconstructed as the earliest form of the forms attested in the languages under study?

Findings of the current study show that out of the aforementioned forms, only three forms exist across languages under study which are *ile*, *-ite* and *-ie*. However, there is variation regarding the existence of these forms across the four languages as well as conditions that restrict the use of one form over the other when two forms exist in a language. For instance, in Ndali, Nyiha and Nyakyusa, two forms exist under varying conditions whereas in Malila only one form exists. For this reason, the following subsections present the forms and the contexts in which these forms are used.

4.2.1 The Forms of *-ile* Suffix in Ndali and Nyiha

In Ndali and Nyiha, two forms, namely *-ile* and *-ite* are used under varying conditions or domains¹⁵ of use (contexts). The wordlist provided some clues for the conditions under which these forms are more or less widely used. For more information on the conditions under which the two *-ile* forms are used in these languages, interviews were used and the results are as presented in the following paragraphs.

The findings show that in Ndali, the *-ite* form has a wider domain of use than the *-ile* form. This is to say, the *-ile* form in Ndali has a more restricted domain of use than – the *ite* form. The structure of the verb root conditions the use of these forms in Ndali. For instance, the *-ile* form is attached to verbs with CV-root in Ndali. In this language, as in many Bantu languages, the verbs with CV-root are very few. Kula (2001) points out that the verbs with CV-root do not exceed twenty in many Bantu languages. In this regard, *-ile* form has a very limited domain of use in Ndali. However, the rest of the regular verbs in Ndali such as verbs with CVC- root, C(G)VC-root and CV:C-root attract the *-ite* form. Table 4.1 provides examples of verbs that allow suffixation of the *-ile* form in Ndali.

Table 4.1: Suffixation of the *-ile* form in Ndali

Verb	Gloss	<i>-ile</i> suffixation	ill-formed
<i>fu-a</i> (fwa)	die	<i>fwile</i>	*fwite
<i>li-a</i> (lya)	eat	<i>liile</i>	*liite
<i>lu-a</i> (lwa)	fight	<i>lwile</i>	*lwite
<i>ng'u-a</i> (ng'wa)	drink	<i>ng'wile</i>	*ng'wite
<i>ku-a</i> (kwa)	pay dowry	<i>kwile</i>	*kwite
<i>pi-a</i>	be burnt	<i>piile</i>	*piite
<i>shi-a</i> (sha)	grind	<i>shiile</i>	*shiite

Table 4.1 has provided examples of verbs that allow suffixation of the *-ile* form in Ndali. As shown in the last column of this table, suffixation of the *-ite* form to verbs

¹⁵The term domain here has been used to imply the extent to which one form is more widely used in the language than the other.

with CV-root is not possible in Ndali. Otherwise, the rest of the verbs apart from CV-verbs in Ndali allow *-ite* suffixation as some of these verbs have been exemplified in Table 4.2.

Table 4.2: Suffixation of the *-ite* form in Ndali

Structure	Verb	Gloss	<i>-ile</i> suffixation	<i>-ite</i> suffixation
CVC-	<i>lima</i>	cultivate	*limile	<i>limite</i>
	<i>jugha</i>	talk	*jughile	<i>jughite</i>
	<i>bhomba</i>	work	*bhombile	<i>bhombite</i>
	<i>kenda</i>	cut	*kendile	<i>kendite</i>
	<i>tima</i>	rain	*timile	<i>timite</i>
	<i>suka</i>	wash	*sukile	<i>sukite</i>
CV:C-	<i>tiima</i>	keep	*tiimile	<i>tiimite</i>
	<i>bhoola</i>	slaughter	*bhoolile	<i>bhoolite</i>
	<i>paala</i>	praize	*paalile	<i>paalite</i>
C(G)VC-	<i>bhyala</i>	plant	*byalile	<i>bhyalite</i>
	<i>fwala</i>	dress	*fwalile	<i>fwalite</i>
	<i>twala</i>	bring	*twalile	<i>twalite</i>

Table 4.2 has provided some examples of verbs that allow suffixation of the *-ite* form in Ndali. Suffixation of the *-ile* form as shown in the last column of this is not possible in Ndali.

Unlike in Ndali, in Nyiha the *-ile* form is widely used while the *-ite* form has a very restricted domain of use. The *-ite* form in Nyiha is selective as it is attached to only regular verbs whose final consonants are [t], [d], [nt] and [nd]. Table 4.3 exemplifies verbs that allow suffixation of the *-ite* form in Nyiha.

Table 4.3: Suffixation of the *-ite* form in Nyiha

Stem	Gloss	<i>-ile</i> suffixation	Surface form/ <i>-ite</i> suffixation
<i>kaat-a</i>	sleep	*kaatile	<i>kaasite</i>
<i>mat-a</i>	build using mud	*matile	<i>masite</i>
<i>leet-a</i>	bring	*leetile	<i>leesite</i>
<i>loot-a</i>	dream	*lootile	<i>loosite</i>
<i>tunda</i>	urinate	*tundile	<i>tunzite</i>
<i>toonta</i>	repent	*toontile	<i>toonsite</i>

The examples presented in Table 4.3 have shown that the vowel of the *-ile* form [i] in Nyiha induces consonant mutation as [t] mutates (changes) to [s], [d] to [z], [nt] to [ns] and [nd] to [nz]. The mutation caused by this high vowel to verbs whose roots end with pre-nasalized stops does not involve the whole segments i.e. [nt>s] or [nd>z] rather it involves a separate segment i.e. [t > s] or [d > z] where the nasal [n] remains unaltered. This suggests that the pre-nasalized stops in Nyiha involve a sequence of two separate sound segments.

4.2.2 The Forms *-ile/-ie* in Malila and Nyakyusa

In Malila and Nyakyusa, the *-ile* form is used throughout to mark tense and/or aspect. However, in some very restricted environment, *-ie* form is used in Nyakyusa. This form demonstrates the change of the phonetic shape of *-ile* suffix that involves the deletion of [l]; the consonant of the tense/aspect (T/A) suffix. The deletion of [l] in Nyakyusa was observed in conversation, particularly, in a connected speech. When Nyakyusa speakers produce a particular utterance with *-ile* suffix, sometimes they tend to drop [l], as exemplified in (27).

- (27) a. *abhaanangu bha -gon -ie ni njala*
 My children SM -sleep -ANT with hunger
 ‘My children slept without eating’
- b. *liino (lilino) abhaandu bha-lobh-ie iswi nyingi fiijo*
 today people SM-fish-ANT fish many a lot
 ‘People have caught a lot of fish’

The dropping of [l], as shown in (27) can be described under minimality condition in that for [l] to be dropped in spoken text, the verb must have at least CVC-root. Table 4.4 provides examples of the verbs to demonstrate blocking condition for the deletion of [l] consonant of the T/A suffix in Nyakyusa.

Table 4.4: The blocking condition for the deletion of [l] in Nyakyusa

Stem	-ile suffixation/input form	Dropping of -ile	Surface/output form
<i>fua</i>	fuile	*fuile	<i>fwile</i> ‘has died’
<i>lia</i>	liile	*liile	<i>liile</i> ‘has eaten’
<i>sia</i>	siile	*siile	<i>siile</i> ‘has ground’
<i>nua</i>	nuile	*fuile	<i>nwile</i> ‘has drunk’
<i>kua</i>	kuile	*kuile	<i>kwile</i> ‘has paid dowry’
<i>tua</i>	tuile	*tuile	<i>twile</i> ‘has become plenty’
<i>sua</i>	suile	*suile	<i>swile</i> ‘has forgiven’

Table 4.4 has provided examples to illustrate the kind of verbs with which Nyakyusa speakers do not drop [l]; the consonant of the suffix. In the rest of the regular verbs, particularly in connected speech, speakers may drop the consonant of the suffix to make the output form look more simplified than the input form.

Generally, the findings of the present study indicate that across the languages under investigation, the suffix *-ile* is phonetically evolving as it manifests in different phonetic forms. This subsection has described different forms of *-ile* suffix and conditions that restrict the use of one form over the other whenever two or more forms exist in the language. Across the four languages, the *-ile* suffix manifests itself in three forms (*-ite*, *-ile* and *-ie*). However, the basic question behind the existence of these three forms of the suffix is; which one can be regarded as the earliest form in the languages under study? To answer this question, three strategies as proposed by Campbell (1999) have been taken into account. The first strategy revolves around the principle which states that any reconstruction should involve as few changes as possible between the daughter languages and the Proto-language. In this view, *-*ite*

is regarded here as the earliest form of the suffix since it involves relatively fewer changes from the Proto-form *-*ide*. The change involved so far is only the voicing feature that is from the voiced alveolar stop [d] of the Proto-form to the voiceless alveolar stop [t] in the daughter languages. It should be noted that the change that involves *-*ide* (Proto-form) to *-*ile*, one of the forms existing in languages under investigation does not conform to this principle since there is a wider gap of change between them.

The second strategy is inclined on the principle of directionality. This principle states that sound changes that recur in independent languages typically go in one direction. Therefore, in connection to the conclusion made on the previous paragraph, it is very common for [d] (of the Proto-Bantu *-ide*) to change into [t] (of *-ite* in the daughter language) but the vice versa is very rare. Therefore, based on the principle of directionality, we reconstruct *-ite* to be the earlier form.

The third strategy is known as phonetic plausibility. This strategy is similar to the principle of directionality. This states that any recurring change in individual languages should be phonetically plausible. In this view, since across many Bantu languages, loss of [l] is common (Kahigi, 1988) but not the loss of [t], it is phonetically plausible to conclude that [t] comes earlier than [l]. Therefore, the change moves from [t] to [l] and finally *-ie*. Since the Proto-Bantu form *-ide*, several phonological processes have been involved in the evolution of suffix's phonetic forms. These are devoicing of the voiced alveolar stop [d>t], liquid formation [t>l] and finally the loss of [l] as in [ie].

In terms of the pace of change in the context of these phonetic forms of *-ile* suffix (*-ite*, *-ile* and *-ie*) across the languages examined, this study concludes that Ndali is the most conservative language regarding the change involving the phonetic forms of *-ile* suffix. This conclusion has been reached because the *-ite* form which is reconstructed to be the earliest in the languages under study, has a wider domain of use in the language than the *-ile* form in Ndali. In the same context, Nyiha is relatively less conservative than Ndali, but more conservative than Malila and Nyakyusa because Nyiha has retained the *-ite* form. However, as pointed out in

subsection 4.2.1, the *-ite* form in Nyiha has a restricted domain of use different from the *-ite* form of Ndali. Nyakyusa has run ahead of the three languages regarding innovation of the phonetic forms of *-ile* suffix. This conclusion has been reached since Nyakyusa speakers sometimes drop the consonant of the T/A suffix making the *-ie* form which is the most recent form across the languages under study.

4.3 Imbrication

The *-ile* suffixation across languages under study brings in two kinds of verbs. They include verbs that involve regular suffixation of the *-ile* forms and verbs that involve irregular suffixation of the *-ile* forms. The former are technically called regular verbs and the latter are irregular verbs (see Kula, 2001; Rugemalira, 2005). The findings show that regular and irregular verbs are defined under varying conditions across languages under study. However, imbrication is associated with irregular verbs. Imbrication is a phonological change in which the morpheme *-il-/-ir-*, which may be glossed as perfective, stative or past fuses with the verb stem producing relatively opaque differences between input and output forms (Bastin 1983; Hyman 1995). The imbrication process begins with underlying representations (formation of the input form which is the verb stem plus the *-ile* suffix) then, the input undergoes derivational process, defined by a set of phonological rules (processes) to the surface representation (surface/output form). Figure 4.1 illustrates symbolically how the imbrication process takes place.

Underlying representation

(input formation) —————> phonological rules —————> Surface representation
(output)

Figure 4.1: The imbrication process

Based on the findings of this study, imbrication is the most common phonological change involving *-ile* suffix across the four languages. This phonological change is expressed under different conditions within a language and/or across the selected languages. Therefore, the following subsections describe imbrication with its triggering conditions as well as a set of phonological processes that have been shaping the change from the input form (the form after attaching *-ile* suffix) to the

output forms (modified/imbricated forms) in individual languages. In these subsections, we will begin by showing different kinds of regular verbs in every language under study.

4.3.1 Imbrication in Nyakyusa

In Nyakyusa, the findings indicate that there are different triggering conditions for imbrication. During data analysis, two groups of verbs were identified regarding conditions for imbrication. The first group involves verbs to which the output form is predictable and these verbs are regarded as regular¹⁶ (the process is called regular suffixation). The second group involves verbs to which the output form is not predictable and these verbs are regarded as irregular (the process is called irregular suffixation). Starting with the former, the findings of the present study indicate that verbs with CV-, CVC- and CVCV(NC)- roots are regular in Nyakyusa. These verbs involve predictable output form after attaching *-ile* suffix. Table 4.5 provides examples of regular verbs to illustrate regular *-ile* suffixation in Nyakyusa.

¹⁶Regular suffixation refers to the situation of the verb stem with which the output form after *-ile* suffixation is predictable (Kula, 2002; Rugemalira, 2005).

Table 4.5: Verbs allowing regular *-ile* suffixation in Nyakyusa

Verb stem/root	Gloss	<i>-ile</i> suffixation
Verbs with CV-root		
<i>fu-a</i> (fwa)	die	<i>fwile</i>
<i>li-a</i> (lya)	eat	<i>liile</i>
<i>gu-a</i>	fall	<i>gwile</i>
<i>ku-a</i> (kwa)	pay dowry	<i>kwile</i>
<i>pi-a</i>	be burnt	<i>piile</i>
<i>si-a</i>	grind	<i>siile</i>
<i>lu-a</i> (lwa)	fight	<i>lwile</i>
<i>ki-a</i>	dawn	<i>kiile</i>
<i>su-a</i>	spit or forgive	<i>swile</i>
<i>tu-a</i>	be plenty	<i>twile</i>
Verbs with CVC-root		
<i>lim-a</i>	cultivate	<i>limile</i>
<i>kom-a</i>	beat	<i>komile</i>
<i>jobh-a</i>	talk	<i>jobhile</i>
<i>som-a</i>	read	<i>somile</i>
<i>tum-a</i>	send	<i>tumile</i>
<i>sop-a</i>	throw	<i>sopile</i>
Verbs with CVCV(NC)-root		
<i>bheleng-a</i>	count	<i>bhelengile</i>
<i>bhulung-a</i>	roll up	<i>bhulungile</i>
<i>kasing-a</i>	roast	<i>kasingile</i>
<i>kalang-a</i>	fry	<i>kalangile</i>
<i>fulumb-a</i>	mix water with dirt/contaminate	<i>fulumbile</i>
<i>keng'end-a</i>	level off	<i>keng'endile</i>
<i>senyend-a</i>	tremble something	<i>senyendile</i>
<i>kanyang-a</i>	trample	<i>kanyangile</i>

As presented in Table 4.5, it is observed that *-ile* suffix does not induce imbrication when attached to these regular verbs. Similar findings have been attested in Bemba (Kula, 2001). However, imbrication is associated with irregular *-ile* suffixation. In Nyakyusa, the suffix *-ile* induces imbrication under different conditions, as presented in the following subsections.

4.3.1.1 Imbrication in verbs with CVCVC-root in Nyakyusa

The findings show that *-ile* suffix induces imbrication when attached to verbs with CVCVC-root in Nyakyusa. Based on phonological processes shaping this change, the verbs with CVCVC-root can be divided into two groups, namely verbs that involve gliding and verbs that involve vowel coalescence. Starting with the former, the penultimate syllable of the CVCVC-root should be made up of [u] and [o] as the nucleus. When *-ile* suffix is attached to this kind of verb, such as *putuka* ‘bend’ and *bhotoka* ‘be abundant’, the suffix creates an opaque difference between the expected input form and output form. The expected forms after attaching the suffix to the verbs *putuka* and *bhotoke* would be *putukile* and *bhotokile* respectively. However, these expected forms (underlying) undergo a derivational process, defined by a set of phonological rules (processes) to the output (surface) form *putwike*. This is to say, the change from the underlying form to the surface form is shaped by a set of phonological processes, as illustrated in (28).

- (28) a. Underlying form /putukile/
 Stage 1: Deletion of [l] /putukie/
 Stage 2: CV metathesis /putuike/
 Stage 3: Gliding /putwike/
 Surface form [putwike]
- b. Underlying form /βotokile/
 Stage 1: Deletion of [l] /βotokie/
 Stage 2: CV metathesis /βotoike/
 Stage 3: Vowel raising [o-u] /βotuike/
 Stage 4: Gliding /βotwike/
 Surface form [βotwike]

The change involving *-ile* suffixation to verbs with CVCVC-root with [u] as the nucleus of the penultimate syllable is shaped by three phonological processes. The processes are; deletion of [l]; the consonant of the tense/aspect (T/A) suffix,

Consonant-Vowel (CV) metathesis¹⁷ and gliding; the process where the high vowel [u] changes into [w] before another vowel. But the change in CVCVC verbs with [o] as a nucleus of the penultimate syllable is shaped by four phonological processes, as illustrated in (28b). Table 4.6 provides more examples to illustrate imbrication induced by *-ile* suffix when attached to verbs with CVCVC-root, when [u, o] become the nucleus of the penultimate syllable in Nyakyusa.

Table 4.6: Imbrication in CVCVC- with [u] and [o] as the penultimate syllable nucleus [M31]

Stem	Gloss	<i>-ile</i> suffixation	Surface form
<i>putuka</i>	bend	*putukile	<i>putwike</i>
<i>satuka</i>	fall down from the tree	*satukile	<i>satwike</i>
<i>sanjula</i>	comb	*sanjulile	<i>sanjwile</i>
<i>sanuka</i>	alter, turn	*sanukile	<i>sanwike</i>
<i>sambuka</i>	rebel, revolt	*sambukile	<i>sambwike</i>
<i>sumuka</i>	get up	*sumukile	<i>sumwike</i>
<i>suluka</i>	go down	*sulukile	<i>sulwike</i>
<i>pangula</i>	dismantle	*panguliile	<i>pangwile</i>
<i>tumula</i>	cut	*tumulile	<i>tumwile</i>
<i>bhapula</i>	slap	*bhapulile	<i>bapwile</i>
<i>pindula</i>	overturn, convert	*pindulile	<i>pindwile</i>
<i>sangula</i>	contribute	*sangulile	<i>sangwile</i>
<i>bhotoka</i>	be in abundance	*bhotokile	<i>bhotwike</i>
<i>gomoka</i>	return	*gomokile	<i>gomwike</i>
<i>sotola</i>	piece	*sotolile	<i>sotwile</i>

Table 4.6 has presented examples of verbs which involve gliding as the distinctive phonological feature when *-ile* is attached to CVCVC-root in Nyakyusa. To verbs with CVCVC-root whose penultimate syllable is made up of [o] as the nucleus (examples in the last three rows of Table 26), gliding occurs after vowel rising, i.e.

¹⁷Metathesis (sometimes called transposition of the segment) is a phonological process whereby two, usually adjacent, sound segments interchange positions i.e. one segment takes the position of the other and vice versa (Massamba, 2010).

[o] → [u] as illustrate in stage 3 in (28b). Coming to the latter, the penultimate syllable of the root should be made up of [a] as the nucleus. To this kind of root, *-ile* suffix induces imbrication with vowel coalescence as the main distinctive phonological feature. When *-ile* suffix is attached to this kind of verb root, as in the word *bhugala* ‘recover’, the expected form would be *bhugalile*. However, this expected form changes into *bhugeele* as its output form in Nyakyusa. This change from the underlying (expected input) form to the surface (output) form is shaped by a set of phonological processes, as illustrated in (29).

(29)	Underlying form	/βugalile/
	Stage 1: Deletion of [l]	/βugalie/
	Stage 3: CV metathesis	/βugaile/
	Stage 4: Vowel coalescence	/βugeele/
	Surface form	[βugeele]

Based on the illustration presented in (29), the phonological change involving *-ile* suffixation to verbs with CVCVC- root whose nucleus of the penultimate syllable is the low vowel [a], is shaped by deletion of [l], CV metathesis and vowel coalescence. Table 4.7 provides more examples to illustrate imbrication in verbs with CVCVC- root whose nucleus of the penultimate syllable is [a] in Nyakyusa.

Table 4.7: Imbrication in CVCVC- with [a] as the penultimate syllable [M31]

Stem	Gloss	<i>-ile</i> suffixation	Surface form
<i>gasama</i>	gape	*gasamile	<i>gaseeme</i>
<i>fugama</i>	kneel down	*fugamile	<i>fugeeme</i>
<i>lusama</i>	gase	*lusamile	<i>luseeme</i>
<i>galama</i>	lie on your back	*galamile	<i>galeeme</i>
<i>kupama</i>	lay on your stomach	*kupamile	<i>kupeeme</i>
<i>kangala</i>	become old	*kangalile	<i>kangeele</i>
<i>tugala</i>	sit down	*tugalile	<i>tugeele</i>
<i>bhagala</i>	carry using shoulders	*bhagalile	<i>bhageele</i>
<i>bhugala</i>	become big/recover	*bhugalile	<i>bhugeele</i>

As it is the case with most of the Bantu languages, verbs in Tables 4.6 and 4.7 have longer roots than the canonical structure. It is worth noting that the majority of Nyakyusa verb roots have a CVC- structure, except a few verb roots have a CV- structure. According to Rugemalira (1993), these longer verbs across Bantu languages (including Nyakyusa) were formed via a process of suffixation using derivational suffixes which eventually ceased to be productive and the roots to which they are attached do not occur alone, or if they do occur, the meaning of root plus the suffix is not the sum of the parts.

4.3.1.2 Imbrication in verbs with reciprocal extension in Nyakyusa

The findings indicate that *-ile* suffix induces imbrication to extended verbs with reciprocal morpheme *-an-*, as in *koma* ‘beat’ *kom-an-a* ‘beat each other’. In Nyakyusa, verbs with reciprocal extension normally have CVC+VC- root structure. When *-ile* suffix is attached to the verbs with reciprocal extension, it fuses with the verb stem and several phonological processes are involved in producing relatively opaque differences between input and output forms. Example (30) illustrates the phonological change involving *-ile* suffixation to verbs with a reciprocal extension by showing stages involved in the change from the underlying form *komanile* to the surface form *komeene*.

(30)	Underlying form	/komanile/
	Stage 1: Deletion of [l]	/komanie/
	Stage 2: CV metathesis	/komaine/
	Stage 3: Vowel coalescence	/komeene/
	Surface form	[komeene]

The change that involves *-ile* suffixation to verbs with reciprocal extension in Nyakyusa is shaped by a set of three phonological processes, namely deletion of [l]; the consonant of the suffix, consonant-vowel metathesis (between [n] and [i]), and vowel coalescence¹⁸. These phonological processes shaping the change in verbs

¹⁸The phonological process that involves the assimilation of two adjacent sound segments that affect each other making a juxtaposition of two vowels ([a] and [i]) to disappear and be replaced by newly compromised vowels [ee], (see Massamba, 2010).

with reciprocal extension are similar to those shaping the change to verbs with CVCVC-root whose nucleus of the penultimate syllable is [a], as presented in (29). Table 4.8 provides more examples of verbs extended with the reciprocal extension to illustrate this kind of phonological change in Nyakyusa.

Table 4.8: Imbrication in verbs with the reciprocal extension in Nyakyusa

Verb	Gloss	-ile suffixation	Surface
<i>kom-an-a</i>	beat each other	*komanile	<i>komeene</i>
<i>many-an-a</i>	know each other/be friends	*manyanile	<i>manyeeene</i>
<i>sek-an-a</i>	laugh each other	*sekanile	<i>sekeene</i>
<i>jabh-an-a</i>	share	*jabhanile	<i>jabheene</i>
<i>gut-an-a</i>	push each other	*gutanile	<i>guteene</i>
<i>tuul-ana</i>	help each other	*tuulanile	<i>tuuleene</i>
<i>tiil-ana</i>	fear each other	*tiilanile	<i>tiileene</i>
<i>eg-ana</i>	marry each other	*eganile	<i>egeene</i>
<i>imb-il-an-a</i>	sing for each other	*imbilanile	<i>imbileene</i>
<i>bhyal-il-an-a</i>	plant for each other	*bhyalanile	<i>byalileene</i>

In Nyakyusa, for some verbs to be extended with reciprocal extension *-an-*, they should first be extended with applicative extension *-el-/il-* as exemplified in the last two rows of Table 4.8.

4.3.1.3 Imbrication in verbs with applicative extension in Nyakyusa

The findings indicate that *-ile* suffix induces imbrication to verbs extended with applicative extension *-el-/il-*. Normally the vowel of the verb root harmonizes with the vowel of applicative forms. When the verb root consists of the mid vowel, it attracts the *-el-* form, otherwise *-il-* suffix is applied. The phonological change involving *-ile* suffix when attached to verbs with applicative extension can be analyzed in two ways. The first way involves analyzing phonological change when the *-ile* suffix is attached to the verb with the applicative form *-il-*, and the second way involves the phonological change of verb with the form *-el-*. These changes are demonstrated here using the verb *lim-il-a* ‘cultivate’ and the verb *kom-el-a* ‘beat

for/use something to beat'. When *-ile* suffix is attached to the words *limila* and *komela*, the expected input forms (underlying forms) would be *limil-ile* and *komelile* respectively. However, these input forms change into *limiile* and *komiile* respectively after being shaped by a set of different phonological processes. Examples in (31a-b) illustrate this phonological change between the underlying forms (*limilile* and *komelile*) to the surface forms (*limiile* and *komiile*) in Nyakyusa.

- | | |
|--|------------|
| (31) a. Underlying form | /limilile/ |
| Stage 1: Deletion of [l] | /limilie/ |
| Stage 2: CV metathesis | /limiile/ |
| Surface form | [limiile] |
| | |
| (31) b. Underlying form | /komelile/ |
| Stage 1: Deletion of [l] | /komelie/ |
| Stage 2: CV metathesis | /komeile/ |
| Stage 3: Leftward spread of vowel height | /komiile/ |
| Surface form | [komiile] |

The phonological change induced by *-ile* suffix when attached to the verbs with the applicative morpheme *-il-* involves only two phonological processes, namely deletion of the consonant of the tense/aspect suffix and consonant-vowel (CV) metathesis. However, the change involving the *-el-* form involves a set of three phonological processes, namely deletion of [l], CV metathesis, leftward spreading of vowel height of [i]. Leftward spread of vowel height is the phonological rule in which the high vowel [i] spreads leftward to avoid the sequence of two vowels [ei] which is disallowed in Nyakyusa, as in stage 3 in example (31b) where the [ei] changes into the [ii]; the long vowel, which is allowed in Nyakyusa.

4.3.1.4 Imbrication in verbs with causative, passive and stative extension (M31)

The findings indicate that *-ile* suffix induces imbrication to verbs extended with causative, passive and stative extensions. However, the phonological processes shaping changes in these verbs vary significantly. When causative (*-esi/-isi-*), passive (*-igu-*) and stative (*-ik/-ek-*) morphemes are added to verbs, they condition imbrication as elaborated in the following paragraphs starting with the causative.

As pointed out in the previous paragraph, the verb root which consists of a mid vowel attracts *-esi-* form whereas the suffix *-isi-* is applied elsewhere. The examples of verbs with causative extension are like the verb *kom-esi-a* ‘cause to beat’ and *lim-isi-a* ‘cause to cultivate’. When *-ile* suffix is attached to these verbs, the expected form would be *komesyile* and *limisyile* respectively. However, these expected forms change into *komiisye* and *limiisye*. Examples in (32a-b) illustrate the stages in the change from the underlying forms *komesyile* and *limisyile* to their surface forms *komiisye* and *limiisye* respectively.

(32) a. Underlying form	/komesyile/
Stage 1: Deletion of [l]	/komesyie/
Stage 2: CV metathesis	/komeisye/
Stage 3: Leftward spread of vowel height	/komiisye/
Surface form	[komiisye]
(32) b. Underlying form	/limisyile/
Stage 1: Deletion of [l]	/limisyie/
Stage 2: CV metathesis	/limiisye/
Surface form	[limiisye]

The two illustrations presented in (32a) and (32b) show variation in the number of phonological processes shaping the verbs with the causative form *-esi-* from that of the causative form *-isi-*. With the former, four phonological processes are involved; they include deletion of the consonant of the tense/aspect suffix, CV metathesis and leftward spread of vowel height. However, to verbs with the causative form *-isi-*, the phonological change is shaped by only two phonological processes which are deletion of the consonant of the tense/aspect suffix and CV metathesis. Table 4.9 presents more examples to illustrate imbrication in verbs with causative extension in Nyakyusa.

Table 4.9: Imbrication in verbs with causative extension in Nyakyusa

Stem	Gloss	<i>-ile</i> suffixation	Surface form	Gloss
<i>sobh-esi-a</i>	cause something to get lost	*sobhesyile	<i>sobhiisye</i>	Has let something get lost
<i>pon-esi-a</i>	heal	*ponesyile	<i>poniisye</i>	Has healed
<i>bhop-esi-a</i>	chase	*bhopesyile	<i>bhopiisye</i>	Has chased
<i>lim-isi-a</i>	cause to cultivate	*limisyile	<i>limiisye</i>	Has caused to cultivate
<i>pimb-isi-a</i>	cause to carry up	*pimbisyile	<i>pimbiisye</i>	Has caused to carry

Also, *-ile* suffix induces imbrication to verbs extended with the passive extension - *igu-* in Nyakyusa. When the suffix is attached to verbs with a passive suffix such as *tumigwa* ‘be sent’, the expected form would be *tumigwile*. However, this expected form changes into *tumiigwe*. Example in (33) illustrates stages and phonological processes involved in shaping the change from the expected word *tumigwile* to the surface form *tumiigwe*.

- (33) Underlying form */tumigwile/*
 Stage1: Deletion of [l] */tumigwie/*
 Stage 2: C(G)-V metathesis */tumiigwe/*
 Surface form [tumiigwe]

This kind of change as illustrated in (33) is shaped by two phonological processes, namely deletion of the [l] and metathesis that involves the position swap between a sequence of consonant-glides [CG] and a vowel [V]. Table 4.10 provides more examples for the phonological change involving *-ile* suffixation to verbs with the passive extension in Nyakyusa.

Table 4.10: Imbrication in verbs with passive extension in Nyakyusa

Stem	Passive	<i>-ile</i>	Surface form	Gloss
<i>lima</i>	<i>limigwa</i>	*limigwile	<i>limiigwe</i>	has been cultivated
<i>sopa</i>	<i>sopigwa</i>	*sopegwile	<i>sopiigwe</i>	has been sown/thrown
<i>ula</i>	<i>uligwa</i>	*uligwile	<i>uliigwe</i>	has been bought
<i>bhuula</i>	<i>bhuuligwa</i>	*bhuuligwile	<i>bhuuliigwe</i>	has been told
<i>sala</i>	<i>saligwa</i>	*saligwile	<i>saliigwe</i>	has been chosen
<i>ibha</i>	<i>ibhigwa</i>	*ibhigwile	<i>ibhiigwe</i>	has been stolen
<i>bhala</i>	<i>bhaligwa</i>	*bhaligwile	<i>bhaliigwe</i>	has been counted

When *-ile* suffix is attached to verbs with stative extension; *-ek-/ik-* such as *limika* ‘be easily cultivated’ *soneka* ‘be easily sewn’ it induces imbrication. The expected input forms of the words *lim-ik-a* and *son-ek-a* after attaching *-ile* suffix would be *limikile* and *sonekile* respectively. Instead, the expected forms (underlying) change into *limiike* ‘is easily cultivated’ and *soniike* ‘is easily sewed’ as the surface forms. The change from the underlying forms to surface forms is shaped by a set of phonological processes as illustrated in (34).

- | | |
|---------------------------------|------------|
| (34) a. Underlying form | /limikile/ |
| Stage 1: Deletion of [l] | /limikie/ |
| Stage 2: CV metathesis | /limiike/ |
| Surface form | [limiike] |
| | |
| (34) b. Underlying form | /sonekile/ |
| Stage 1: Deletion of [l] | /sonekie/ |
| Stage 2: CV metathesis | /soneike/ |
| Stage 3: Leftward spread of [i] | /soniike/ |
| Surface form | [soniike] |

The two illustrations in (34 a & b) show variation in terms of the phonological processes shaping the change between the verbs with *-ik-* and *-ek-*. The change involving verbs with stative form *-ik-* is shaped by two phonological processes, namely deletion of [l] and CV metathesis. However, the change involving stative

form *-ek-* is shaped by three phonological processes which are deletion of [l], CV metathesis and vowel harmony; leftward spread of vowel height [i]. The phonological processes shaping imbrication in verbs with stative *-ek-/ik-* are the same as the phonological processes shaping imbrication in verbs with applicative *-el-/il-* and causative *-esi-/isi-* respectively. Table 4.11 provides more examples to illustrate the phonological change involving *-ile* suffixation to verbs with the stative extension in Nyakyusa.

Table 4.11: Imbrication in verbs with the stative extension (*-ik-/ek-*) in Nyakyusa

Stem	Gloss	<i>-ile</i> suffixation	Surface form
<i>son-ek-a</i>	be well sewn	*sonekile	<i>soniike</i>
<i>lim-ik-a</i>	be easily cultivated	*limikile	<i>limiike</i>
<i>mal-ik-a</i>	get finished	*malikile	<i>maliike</i>
<i>im-ik-a</i>	respect/set up	*imikile	<i>imiike</i>
<i>many-ik-a</i>	be known	*manyikile	<i>manyiike</i>
<i>bhomb-ek-a</i>	be easily done	*bhombekile	<i>bhombiike</i>

Table 4.11 has presented more examples to illustrate the phonological change (imbrication) induced by *-ile* suffix when the suffix is attached to verbs with stative extension in Nyakyusa. The change from underlying form, as shown in the third column to the surface form, as shown in the last column follow the same stages as illustrated in (34).

Generally, all extended verb forms (whether frozen or productive) satisfy conditions for imbrication in Nyakyusa. The basic processes are deletion of the consonant of *-ile* suffix, followed by metathesis whereby the root/stem consonant fills the empty consonant slot. Then adjustments follow to get the vowel sequences properly aligned.

4.3.1.5 Imbrication in verbs with CV:C(G)-root in Nyakyusa

The findings indicate that *-ile* suffix induces imbrication to verbs with CV:C(G)-root such as *leefya* ‘cause trouble’. When *-ile* suffix is attached to the verbs of this structure such as in the verb *leefya*, the expected input form would be *leefyile* but in

this language (Nyakyusa). This expected input (underlying) form changes into *leefifye* as the surface (output) form. The change from underlying form *leefyile* to its surface form *leefifye* is stage by stage shaped by several phonological processes, as illustrated in (35).

- (35) Underlying form */leefyile/*
 Stage 1: Deletion of [l] */leefyie/*
 Stage 2: CV metathesis */leefyie/*
 Stage 3: Consonant insertion */leefifye/*
 Surface form [leefifye]

The phonological processes involved in shaping this kind of change are; first the deletion of [l]; the consonant of the suffix, followed by the CV metathesis, the third one is the insertion of the consonant [f] which normally is a copy of the last consonant in the word. Table 4.12 provides more examples for imbrication to verbs with CV:C(G)-roots in Nyakyusa.

Table 4.12: Imbrication in verbs with CV:C(G)- root in Nyakyusa

Stem	Gloss	Stem+ile	Surface form
<i>leefya</i>	annoy	* <i>leefyile</i>	<i>leefifye</i>
<i>leesya</i>	peel	* <i>leesyile</i>	<i>leesisye</i>
<i>puufya</i>	warm (food)	* <i>puufyile</i>	<i>puufifye</i>
<i>gaasya</i>	make one become drunkard	* <i>gaasyile</i>	<i>gaasisye</i>
<i>paasya</i>	fear	* <i>paasyile</i>	<i>paasisye</i>
<i>teesya</i>	mount a hen	* <i>teesyile</i>	<i>teesisye</i>
<i>soosya</i>	remove	* <i>soosyile</i>	<i>soosisye</i>
<i>tuusya</i>	rest	* <i>tuusyile</i>	<i>tusiisye</i>

Table 4.12 has provided more examples to demonstrate a phonological change (imbrication) induced by *-ile* suffix when the suffix is attached to verbs with CV:C(G)-root in Nyakyusa. The change from underlying form (as shown in the third column) to the surface form (as shown in the last column) follow the same stages as illustrated in (35).

4.3.1.6 Imbrication in verbs with C(G)VC- and CV:C-roots in Nyakyusa

The findings indicate that *-ile* suffix induces imbrication to verbs with C(G)VC and CV:C-roots in Nyakyusa with some exceptions. Starting with the former (verbs with C(G)VC-root), *-ile* suffix induces imbrication when it is attached to some verbs whose syllable nucleus is a low vowel [a] such as *bhyala* ‘plant’. When *-ile* suffix is attached to the word *bhyala*, the expected form would be *bhyalile*. However, this expected word changes into *bhyeele* as its surface form in Nyakyusa. The change of the expected form *bhyalile* to the surface form is shaped by a set of phonological processes, as illustrated in (36).

- (36) Underlying form /βyalile/
 Satge 1: Deletion of [l] /βyalie/
 Stage 2: CV metathesis /βyaile/
 Stage 3: Vowel coalescence /βyeele/
 Surface form [βyeele]

This change from the underlying (expected) form to the surface (output) form is shaped by three phonological processes. The first phonological process is the deletion of the consonant of the suffix, followed by CV metathesis (between [l] and [i]) and the last phonological process is the vowel coalescence. Table 4.13 provides more examples to illustrate this phonological change (imbrication) induced by *-ile* suffix when attached to verbs with C(G)VC-root whose syllable nucleus is [a] in Nyakyusa.

Table 4.13: Imbrication in verbs with C(G)VC-root; [a] as the syllable nucleus (M31)

stem	Gloss	<i>-ile</i> suffixation	Surface form
<i>fwala</i>	dress	*fwalile	<i>fweele</i>
<i>fwana</i>	resemble	*fwanile	<i>fweene</i>
<i>twala</i>	bring	*twalile	<i>tweele</i>
<i>bhyala</i>	plant	*bhyalile	<i>bhyeele</i>
<i>syala</i>	remain	*syalile	<i>syeele</i>

Table 4.13 has illustrated the condition under which *-ile* suffix induces a phonological change (imbrication) in Nyakyusa. It has been noted that it is the low vowel [a] constituting the nucleus of the verb root that condition imbrication. However, the findings indicate that there are other verbs with the same structure as the verbs presented in Table 4.13 with which *-ile* does not trigger any phonological change. In other words, these verbs are regarded as regular. Also, there are verbs with the same structure (C(G)VC-roots) yet the *-ile* suffix does not trigger any phonological change. Table 4.14 provides examples to demonstrate regular *-ile* suffixation to verbs with C(G)VC-root as an exception in Nyakyusa.

Table 4.14: Regular *-ile* suffixation to verbs with C(G)VC- roots in Nyakyusa (exception)

Stem	Gloss	-ile suffixation
<i>fyata</i>	tighten	<i>fyatile</i>
<i>pyata</i>	peel	<i>pyatile</i>
<i>fwima</i>	hunt	<i>fwimile</i>
<i>fwika</i>	dress somebody	<i>fwikile</i>
<i>fyuka</i>	climb	<i>fyukile</i>
<i>syula</i>	excavate	<i>syulile</i>
<i>syuta</i>	swing	<i>syutile</i>
<i>syoka</i>	grumble	<i>syokile</i>
<i>syuka</i>	rise from the dead	<i>syukile</i>

Table 4.14 has provided examples to illustrate the exception of the condition as illustrated in (36). The examples of regular verbs presented in the first two rows in Table 4.14 demonstrate the same structure as the irregular verbs in Table 4.13. Examples of verbs presented in the rows that follow after the first and second in Table 4.14 have the same verb structure as those verbs presented in Table 4.13 but slightly different. They are all verbs with C(G)VC-root but those presented in Table 4.13 have a low vowel as the syllable nucleus.

Coming to the latter (verbs with CV:C-root), when *-ile* suffix is attached to this kind of verbs with CV:C-root, it either induces imbrication or not. Table 4.15 provides examples to demonstrate regular and irregular *-ile* suffixation to verbs with CV:C-root in Nyakyusa.

Table 4.15: Regular/irregular *-ile* suffixation to CV:C-root in Nyakyusa (Exception)

Stem	Gloss	<i>-ile</i> suffixation	Surface form
<i>bhaala</i>	increase in number	<i>bhaal-ile</i>	<i>bheele/bhaalile</i>
<i>saala</i>	rejoice	<i>saal-ile</i>	<i>saalile</i>
<i>gaala</i>	become drunkard	<i>gaal-ile</i>	<i>gaalile</i>
<i>paala</i>	invite people to help you	<i>paal-ile</i>	<i>paalile</i>
<i>bhoola</i>	slaughter	<i>bhool-ile</i>	<i>bhoolile</i>
<i>toola</i>	get something by chance	<i>tool-ile</i>	<i>toolile</i>
<i>tuula</i>	help	<i>tuul-ile</i>	<i>tuulile</i>

From Table 4.15, the example in the first row is both regular and irregular. The findings indicate that in Nyakyusa the word *bhaala* is the only CV:C verb that can be either regular or irregular. This verb *bhaala* is regular because it follows a regular pattern. It is irregular because *-ile* suffix allows irregular pattern. The main phonological process shaping the change in this word is vowel coalescence or fusion. However, other verbs with CV:C root do not involve any phonological change (imbrication) when *-ile* suffix is attached to these verbs.

These exceptions provide a proof for the theory of language change presented in chapter two which takes its inspiration from the neo-Darwinian evolution theory with underlying four key concepts. One of these key concepts is ‘selection’ which fits in the description of this exception involving *-ile* suffix in Nyakyusa. The concept of selection implies the process where replicators (entities possessing structure that can be passed on) are different in that some are more successful than others in the course of change.

On top of that, the same exceptions have been noted in verbs with C(G)VC- and CV:C-roots in Chibemba (Givón, 1970), Runyankore (Mould, 1972) and Runyambo (Rugemalira, 2005). The findings of the present study and that of the previous works suggest that these verbs with C(G)VC-/CV:C-roots were irregular (i.e. they involved imbrication when *-ile* suffix is attached). Therefore, the regular forms (verbs with

C(G)VC- and CV:C-roots) across Bantu languages including Nyakyusa, as presented in Tables 4.14 and 4.15 are recent innovations which follow the more regular rule for imbrication, and the irregular ones are archaic and have been left behind. In other words, this implies that the regularization of the *-ile* suffixation process is marching forward and putting imbrication in danger.

Generally, the findings presented in subsection 4.3.1 suggest that all the verb extensions and some other kinds of verb roots (CV:C(G)-, CV:C, C(G)VC-) create a condition for imbrication. Table 4.16 provides a summary to demonstrate regular and irregular *-ile* suffixation in Nyakyusa.

Table 4.16: Summary of regular and irregular *-ile* suffixation in Nyakyusa

Verb root	Example	Gloss	Input form	Output form
CV-	<i>fu-a (fwa)</i>	die	<i>fuile</i>	<i>fwile</i>
CVC-	<i>lim-a</i>	cultivate	<i>limile</i>	<i>limile</i>
CVCV(NC)-	<i>bheleng-a</i>	count	<i>bhelengile</i>	<i>bhelengile</i>
CVCVC-	<i>putuka</i>	bend	*putukile	<i>putwike</i>
CVC+VC	<i>kom-an-a</i>	beat each other	*komanile	<i>komeene</i>
	<i>lim-il-a</i>	cultivate for	*limilile	<i>limiile</i>
	<i>kom-el-a</i>	beat for	*komelile	<i>komiile</i>
	<i>many-ik-a</i>	be known	*manyikile	<i>manyiike</i>
	<i>son-ek-a</i>	sewable	*sonekile	<i>soniike</i>
CVC+VCV-	<i>kom-igu-a</i>	be beaten	*komigwile	<i>komiigwe</i>
	<i>lim-isi-a</i>	cause to cultivate	*limisyile	<i>limiisye</i>
	<i>pon-esi-a</i>	heal	*ponesyile	<i>poniisye</i>
CV:C(G)-	<i>leefy-a</i>	cause trouble	*leefyile	<i>leefiifye</i>
CV:C-	<i>bhaala</i>	increase	<i>bhaalile</i>	<i>bheele</i>
C(G)VC-	<i>fwala</i>	dress	?fwalile	<i>fweele</i>

Table 4.16 has presented a summary to demonstrate regular and irregular *-ile* suffixation in Nyakyusa. In this table, verbs with CV:C and C(G)VC-roots involve exceptions, that is some verbs of the said structures are regular whereas others are irregular.

Regarding the Theory of Utterance Selection which advocates that language change moves from complex structures to relatively simpler ones, the change that involves *-ile* suffix under the umbrella of imbrication makes the imbricated words to become more simplified. This simplification of the imbricated words is manifested through syllable reduction. This reduction of syllables makes speakers to use relatively less energy in the production of the output form compared to the expected input form. For instance, the word *komana* ‘Beat each other’ (the extended verb with the reciprocal suffix) has three syllables. When *-ile* suffix is attached, the resulting word would be expected to be *komanile* (with four syllables). However, a change has occurred where the output form ([ko]σ, [mee]σ, [ne]σ) is reduced into three syllables. This syllable reduction here is interpreted as a sort of simplification as speakers would use more energy in the production of the underlying form (*komanile*) which has four syllables than the surface form (*komeene*) with three syllables.

4.3.2 Imbrication in Ndali

The findings indicate that in Ndali, there are two groups of verbs, namely regular and irregular verbs. Table 4.17 provides examples for verbs that involve regular *-ite/-ile* suffixation in Ndali.

Table 4.17: Regular suffixation of -ile in Ndali

Stem	Gloss	-ile suffixation
Verbs with CV-root		
<i>fua</i>	die	<i>fwile</i>
<i>lua</i>	fight	<i>lwile</i>
Verbs with CVC-root		
<i>lima</i>	cultivate	<i>limite</i>
<i>ghana</i>	love	<i>ghanite</i>
<i>manya</i>	know	<i>manyite</i>
<i>ghona</i>	sleep	<i>ghonite</i>
Verbs with C(G)VC- and CV:C-root		
<i>bhyala</i>	plant	<i>bhyalite</i>
<i>fwala</i>	dress	<i>fwalite</i>
<i>twala</i>	bring	<i>twalite</i>
<i>bhaala</i>	increase in number	<i>bhaalite</i>
<i>taagha</i>	throw	<i>taaghite</i>
Verbs with CVCV(NC)-root		
<i>bhulunga</i>	roll up	<i>bhulungite</i>
<i>kung'unda</i>	shake off	<i>kung'undite</i>
<i>kashinga</i>	fry	<i>kashingite</i>
Verbs extended with a reciprocal suffix -an-		
<i>kom-an-a</i>	beat each other	<i>kom-an-ite</i>
<i>gan-an-a</i>	love each other	<i>gan-an-ite</i>
Verbs extended with a stative suffix -ik-		
<i>lim-ik-a</i>	be cultivate	<i>lim-ik-ite</i>
<i>mal-ik-a</i>	be finished	<i>mal-ik-ite</i>
Verbs with CVCVC-roots with [k] as the syllable coda		
<i>bhoneka</i>	be seen	<i>bhonekite</i>
<i>ghomoka</i>	return	<i>ghomokite</i>
<i>lembuka</i>	wake up	<i>lembukite</i>

As presented in Table 4.17, verbs with CV-, CVC-, CV:C, C(G)VC-, CVCV(NC)-, CVCVC- with [k] as the coda and verbs extended with reciprocal and stative extensions are regular because they involve the regular *-ile* pattern. However, in Ndali, the suffix *-ile* induces imbrication under different conditions, as presented in the following subsections.

4.3.2.1 Imbrication in verbs with applicative extension in Ndali

The findings show that *-ile* suffix induces imbrication to verbs with the applicative extension *-il-/el-* in Ndali. When *-ile* suffix is attached to verbs with the applicative extension such as *limila* and *komela*, the expected forms would be *limilile* and *komelile* respectively. However, these expected forms change into *limiile* and *komiile* respectively. Examples (37 a & b) illustrate stages and the phonological processes that have shaped the change from *limilile* to *limiile* and *komelile* to *komiile*.

(37) a. Underlying form	/limilile/
Stage 1: Deletion of l	/limilie/
Stage 2: CV metathesis	/limiile/
Surface form	[limiile]
(37) b. Underlying form	/komelile/
Stage 1: Consonant deletion	/komelie/
Stage 2: CV metathesis	/komeile/
Stage 3: Leftward spread of vowel height	/komiile/
Surface form	[komiile]

The change involving *-ile* suffixation to verbs extended with the applicative extension *-el-/il-* is shaped with a set of phonological processes. The verb with the applicative form *-il-* involves two phonological processes, namely deletion of the suffix's consonant [l] and Consonant-vowel (CV) metathesis, whereas the verb with applicative form *-el-* involves four phonological processes. They include deletion of [l], CV metathesis and leftward spread of vowel height. Table 4.18 provides more examples to illustrate the phonological change involving *-ile* suffixation to verbs extended with applicative extension in Ndali.

Table 4.18: Imbrication in verbs with the applicative extension in Ndali

Stem	Gloss	-ile suffixation	Surface form
<i>kom-el-a</i>	beat for/phone someone	*komel-ile	<i>komiile</i>
<i>lim-il-a</i>	cultivate for	*limil-ile	<i>limiile</i>
<i>bhal-il-a</i>	read for	*bhalil-ile	<i>bhaliile</i>
<i>jugh-il-a</i>	talk for	*jughil-ile	<i>jughiile</i>
<i>bhyal-il-a</i>	plant for/use something to plant	*bhyalil-ile	<i>bhyaliile</i>
<i>bhop-el-a</i>	run for	*bhopelile	<i>bhopiile</i>
<i>ul-il-a</i>	buy for	*ulil-ile	<i>uliile</i>
<i>bhyal-il-a</i>	plant for	*bhyalil-ile	<i>byaliile</i>
<i>twal-il-a</i>	bring for	*twalil-ile	<i>twaliile</i>

Examples presented in Table 4.18 have demonstrated imbrication induced by *-ile* suffix when it is attached to verbs with the applicative extension, *-il/-el-* in Ndali. Nyakyusa and Ndali share the same phonological processes that shape the change in verbs with applicative extension.

4.3.2.2 Imbrication in verbs with the passive extension in Ndali

The findings show that *-ile* suffix induces imbrication to verbs with the passive extension *-ighu-* in Ndali. When *-ile* suffix is attached to these verbs, such as *komighwa*, the expected input form would be *komighwile*. However, this expected input form changes into *komiighwe* in Ndali. Example in (38) illustrates stages and phonological processes shaping the change from the underlying (input) form (*komighwile*) to the surface (output) form (*komiighwe*) in Ndali.

- (38) Underlying form */komiywile/*
 Stage 1: Deletion of [l] */komiyywie/*
 Stage 2: CV metathesis */komiiywe/*
 Surface form [komiiywe]

This kind of change, as illustrated in (38) is shaped by two phonological processes, namely deletion of [l] and CV metathesis. Table 4.19 provides more examples to illustrate the change that involves *-ile* suffixation to verbs extended with the passive extension in Ndali.

Table 4.19: Imbrication in verbs with the passive extension in Ndali

Stem	Gloss	-ile suffixation	Surface form
<i>lim-ighw-a</i>	<i>be cultivated</i>	*limighwile	<i>limiighwe</i>
<i>tum-ighw-a</i>	<i>be sent</i>	*tumighwile	<i>tumiighwe</i>
<i>bhyal-ighw-a</i>	<i>be planted</i>	*bhyalighwile	<i>bhyaliighwe</i>
<i>bhal-ighw-a</i>	<i>be counted</i>	*bhalighwile	<i>bhaliighwe</i>

Table 4.19 has demonstrated the opaque difference between the input form and output form caused by *-ile* suffix when it is attached to verbs with a passive extension.

4.3.2.3 Distant assimilation in verbs with causative extension in Ndali

The findings indicate that causative extension (*-esh/-ish*) also creates the condition for the phonological change known as distant (non-adjacent) progressive assimilation. According to Campbell (1999), this kind of assimilation is not as common as adjacent assimilation, though some changes having to do with vowels or consonants in the next syllable are quite common. As far as this language is concerned, this assimilation involves a sound change in which the consonant of the *-ile* suffix which in principle appears after a vowel becomes more similar to the causative suffix. Table 4.20 provides examples to illustrate non-adjacent assimilation resulting from *-ile* suffixation to verbs with causative extension.

Table 4.20: Distant assimilation in verbs with causative extension in Ndali

Stem	Gloss	-ile	Assimilation
<i>bhomb-esh-a</i>	cause someone to work	*bhombeshile	<i>bhombeshishe</i>
<i>bhol-esh-a</i>	make something decay	*bholeshile	<i>bholeshishe</i>
<i>og-esh-a</i>	cause one to take a shower	*ongeshile	<i>ogeshishe</i>
<i>kol-esh-a</i>	cause someone to touch	*koleshile	<i>koleshishe</i>
<i>pon-esh-a</i>	heel	*poneshile	<i>poneshishe</i>
<i>lim-ish-a</i>	cause one to cultivate	*limishile	<i>limishishe</i>
<i>fwal-ish-a</i>	cause to dress /dress somebody	*fwalishile	<i>fwalishishe</i>
<i>pimb-ish-a</i>	cause one to carry something	*pimbishile	<i>pimbishishe</i>

Examples presented in Table 4.20 indicate that consonant of the T/A suffix [l] assimilates to the consonant of the causative extension [ʃ]. Generally, the *-ile* consonant is lost but the modified verb has the expected syllable count.

4.3.2.4 Imbrication in verbs with CVCVC-root in Ndali

The findings show that *-ile* suffix induces imbrication to verbs with CVCVC-root in Ndali. To verbs that end with [k] such as *sumuka* ‘stand up’, *-ile* suffix does not induce imbrication. However, *-ile* suffix induces imbrication to other verbs with CVCVC- root such as *tungula* ‘pick’ and *fulala* ‘get injured’. When *-ile* suffix is attached to this verb such as *tungula* and *fulala*, the expected form would be *tungulile* and *fulalile* respectively. However, this expected forms change into *tungwile* and *fuleele*. Table 4.21 provides examples to illustrate imbrication in verbs with CVCVC-root in Ndali.

Table 4.21: Imbrication in verbs with CVCVC-root in Ndali

Stem	Gloss	-ile	Surface form	Gloss
<i>tungula</i>	pick	*tungulile	<i>tungwile</i>	picked
<i>pesula</i>	comb	*pesulile	<i>peswile</i>	combed
<i>fumbula</i>	unhide	*fumbulile	<i>fumbwile</i>	unhide
<i>satula</i>	untie the rope	*satulile	<i>satwile</i>	untied
<i>fulala</i>	get injured	*fulalile	<i>fuleele</i>	got injured
<i>bhugala</i>	recover	*bhugalile	<i>bhugeele</i>	recovered
<i>bhaghala</i>	carry using shoulders	*bhaghalile	<i>bhagheele</i>	carried using shoulders

The verbs presented in Table 4.21 phonologically behave in the same way as the verbs with CVCVC- root with [a, u] as the nucleus of the penultimate syllable in Nyakyusa. These verbs with [u] involve three phonological processes shaping the change from the expected form to the surface forms. These phonological processes are deletion of [l], CV metathesis and gliding. However, the verbs with [a] involve deletion of [l], CV metathesis and vowel coalescence.

Generally, subsection 4.3.2 has presented the extent to which *-ile* suffix induces imbrication in Ndali. Table 4.22 provides examples to illustrate regular and irregular *-ile* suffixation in Ndali.

Table 4.22: Regular and Irregular *-ile* suffixation in Ndali

Verb root	Example	Gloss	Input	Output
Regular				
CV-	<i>fu-a (fwa)</i>	die	<i>fuile</i>	<i>fwile</i>
CVC-	<i>lim-a</i>	cultivate	<i>limite</i>	<i>limite</i>
CV:C-	<i>bhaala</i>	increase	<i>bhaalite</i>	<i>bhaalite</i>
C(G)VC-	<i>fwala</i>	dress	<i>fwalite</i>	<i>fwalite</i>
CVCVC(N)	<i>kashinga</i>	fry	<i>kashingite</i>	<i>kashingite</i>
Stative	<i>limika</i>	cultivable	<i>limikite</i>	<i>limikite</i>
CVCVC- with [k] as its coda	<i>ghaluka</i>	return back	<i>ghalukite</i>	<i>ghalukite</i>
Reciprocal	<i>gogana</i>	kill each other	<i>goganite</i>	<i>goganite</i>
Irregular				
CVCVC- with [l]	<i>pesula</i>	comb	*pesulile	<i>peswile</i>
applicative	<i>limila</i>	cultivate for	*limilile	<i>limiile</i>
passive	<i>tumighwa</i>	be sent	*tumighwile	<i>tumiighwe</i>
causative	<i>bhombesha</i>	cause to work	*bhombeshile	<i>bhombeshishe</i>

As presented in Table 4.22, the main triggering conditions for imbrication in Ndali include some verb extensions, namely applicative *-el/-il-*, causative *-esh/-ish-*, passive *-ighu-* as well as some verbs with CVCVC-root structure. However, verbs with stative extension *-ek/-ik-*, reciprocal extension *-an-*, verbs with CV:C, C(G)VC- and CVCVC-roots are regular in Ndali.

4.3.3 Imbrication in Malila

Like in Nyakyusa and Ndali, in Malila, there are verbs in which their output forms are predictable (regular verbs) and those verbs whose output forms are not predictable after attaching *-ile* suffix (irregular verbs). However, the concept of regularity may slightly differ from that of Nyakyusa and Ndali. This is because Nyakyusa and Ndali regard the verbs with CV-root as regular while the same verbs are irregular in Malila. The regular verbs in this language involve verbs with CVC-root (*bhomba* ‘work’), CV:C-root (*waala* ‘plant’), C(G)VC-root (*kwata* ‘dress’) and

verbs with the stative extension *-ikh-/-ekh-* (but *-ile* suffix induces C-mutation). Table 4.23 provides examples of regular verbs in Malila.

Table 4.23: Regular verbs in Malila

Stem	<i>-ile</i> suffixation	Gloss
Verbs with CVC-root		
<i>lila</i>	cry	<i>lil-ile</i>
<i>pela</i>	create	<i>pel-ile</i>
<i>khoma</i>	beat	<i>khom-ile</i>
<i>lima</i>	cultivate	<i>lim-ile</i>
Verbs with CV:V- and C(G)VC-roots		
<i>leeta</i>	bring	<i>leetile</i>
<i>hoola</i>	rain	<i>hoolile</i>
<i>bhoola</i>	slaughter	<i>bhool-ile</i>
<i>waala</i>	plant	<i>waalile</i>
<i>kwata</i>	dress	<i>kwat-ile</i>
Extended verbs with stative suffix		
<i>bhomb-ekh-a</i>	be easily done	<i>bhombeshile</i>
<i>lim-ikh-a</i>	be easily cultivated	<i>limishile</i>
<i>lol-ekh-a</i>	be easily seen	<i>loleshile</i>

Table 4.23 has provided examples of verbs that involve regular *-ile* suffixation in Malila. However, like in Nyakyusa and Ndali, irregular *-ile* suffixation in Malila occurs under different conditions, as presented in the following subsections.

4.3.3.1 Imbrication in verbs with CV-root in Malila

The findings indicate that *-ile* suffix induces imbrication to verbs with CV-root in Malila. When *ile* suffix is attached to this kind of verb, such as *lu-a* ‘fight’, the expected underlying form would be *luile*. However, in this language, the expected input form (underlying) changes into *luuye* as the output (surface) form. The change from the underlying form *luile* to the surface form *luuye* is shaped by a set of phonological processes, as illustrated in (39).

which are *-el-* and *-il-*. When *-ile* suffix is attached to verbs with the applicative *-il-* as in *fum-il-a* ‘come from’ and *-el-* as in *bhombela* ‘work for’, the expected forms would be *fumilile* and *bhombelile*, respectively. However, the actual forms are *fumiiye* and *bhombeeye*, respectively. Examples in (40) and (41) illustrate stages and phonological processes that have shaped the change from the expected (underlying) forms to the outputs (surface) forms in Malila.

(40)	Underlying form	/fumilile/
	Stage 1: Deletion of [l]	/fumiile/
	Stage 2: CV metathesis	/fumiie/
	Stage 3: Deletion of [l]	/fumiie/
	Stage 4: Insertion of ghost consonant	/fumiiye/
	Surface form	[fumiiye]
(41)	Underlying form	/βombelile/
	Stage 1: Deletion of [l]	/βombelie/
	Stage 2: CV metathesis	/βombeile/
	Stage 3: Deletion of [l]	/βombeie/
	Stage 4: Insertion of ghost consonant	/βombeiyē/
	Stage 5: Rightward spread of vowel height	/βombeeye/
	Surface form	[βombeeye]

The example illustrated in (40) shows phonological changes shaping imbrication in verbs with applicative form *-il-* in Malila. The change is shaped by four phonological processes, namely deletion of [l]; the consonant of T/A suffix, CV metathesis, deletion of [l]; the consonant of an applicative and insertion of a ghost consonant [y] to break a sequence of three vowels. In contrast, imbrication in verbs with an applicative form *-el-* is shaped by five phonological processes, namely deletion of [l]; the consonant of the T/A suffix, CV metathesis, deletion of [l]; the consonant of an applicative extension, insertion of the ghost consonant and rightward spread of vowel height to break diphthong [ei], as in stage 4 in example (41) by changing it into [ee], as in stage 5 in example (41). Table 4.25 provides more examples to illustrate imbrication induced by the *-ile* suffix when attached to verbs with applicative extension in Malila.

Table 4.25: Imbrication in verbs with applicative extension in Malila

Stem	Gloss	-ile	Surface form
<i>bhomb-el-a</i>	work for	*bhombelile	<i>bhombeeye</i>
<i>khom-el-a</i>	beat for	*khomelile	<i>khomeeye</i>
<i>lol-el-a</i>	see for	*lolelile	<i>loleeye</i>
<i>lem-el-a</i>	hold for	*lemelile	<i>lemeeye</i>
<i>goj-el-a</i>	kill for	*gojelile	<i>gojeeye</i>
<i>fum-il-a</i>	come from	*fumilile	<i>fumiiye</i>
<i>simb-il-a</i>	write for	*simbilile	<i>simbiieye</i>
<i>khal-il-a</i>	buy for	*khalilile	<i>khaliieye</i>

Table 4.25 has provided examples to demonstrate imbrication induced by *-ile* suffix when it is attached to verbs with applicative extension in Malila. The change from underlying form, as shown in the third column to the surface form, as shown in the last column follow the same stages as illustrated in (40 & 41).

4.3.3.3 Imbrication in verbs with CVCVC-root in Malila

The findings indicate that *-ile* suffix induces imbrication in Malila when it is attached to verbs with CVCVC-root such as *sogola* ‘go’. These verbs with CVCVC-root behave in the same way as the verbs with applicative extension. In other words, *-ile* suffix induces imbrication to these verbs with the same phonological processes as illustrated in (41), that is to say, the change from the underlying form, *sogolile* to the surface form *sogooye* is shaped by five phonological processes. These processes are deletion of [l]; the consonant of the T/A suffix, CV metathesis, deletion of [l]; the coda, insertion of ghost consonant and rightward spread of vowel height. Table 4.26 provides examples to demonstrate imbrication when *-ile* suffix is attached to frozen verbs with applicative extension in Malila.

Table 4.26: Imbrication to verbs with CVCVC-root in Malila

Stem	Gloss	-ile	Surface form
<i>sogola</i>	leave	*sogolile	<i>sogooye</i>
<i>dumula</i>	cut	*dumulile	<i>dumuuye</i>
<i>palamila</i>	be near to arrive	*palamilile	<i>palamiiye</i>
<i>fungula</i>	open	*fungulile	<i>funuuuye</i>
<i>sangula</i>	comb	*sangulile	<i>sanguuye</i>
<i>fwatula</i>	make bricks	*fwatulile	<i>fwatuuye</i>

Table 4.26 has demonstrated the extent to which *-ile* suffix creates an opaque difference between the input form and output form when attached to verbs with CVCVC- root in Malila. For instance, when *-ile* suffix is attached to the verb *sogola* ‘go’ as in the first column, the output form would be *sogolile* as shown in the third column. However, the input form *sogolile* changes into *sogooye* as shown in the last column.

4.3.3.4 Imbrication in verbs with reciprocal extension in Malila

The findings show that in Malila, *-ile* suffix induces imbrication when attached to verbs extended with the reciprocal extension. When *-ile* suffix is attached to verbs with the reciprocal *-an-* such as *khom-an-a*, the expected form would be *khom-an-ile*. However, this expected form changes into *khomiine* in this language. Example in (42) illustrates stages and phonological processes that have shaped the change from the underlying form (*khoman + ile*) to the surface form (*khomiine*) after *-ile* suffixation in Malila.

- (42)
- | | |
|-----------------------------------|------------|
| Underlying form | /xomanile/ |
| Stage 1: Deletion of [l] | /xomanie/ |
| Stage 2: CV metathesis | /xomaine/ |
| Stage 3: Vowel deletion | /xomine/ |
| Stage 4: Compensatory lengthening | /xomiine/ |
| Surface form | [xomiine] |

The phonological change that involves *-ile* suffixation to verbs with reciprocal extension, as illustrated in (42) is shaped by four phonological processes, namely deletion of the consonant of the *-ile* suffix, CV metathesis, vowel deletion and compensatory vowel lengthening. These phonological processes follow the same order as they have been mentioned. Table 4.27 shows more examples to illustrate imbrication; the opaque difference between the input form and the output form made by *-ile* suffixation to verbs with reciprocal extension in Malila.

Table 4.27: Imbrication in verbs with reciprocal extension in Malila

Stem	Gloss	<i>-ile</i> suffix	Surface form
<i>khom-an-a</i>	beat each other	*khomanile	<i>khomiine</i>
<i>long-an-a</i>	talk to each other	*longanile	<i>longiine</i>
<i>say-an-a</i>	bless each other	*sayanile	<i>sayiine</i>
<i>lol-an-a</i>	see each other	*lolanile	<i>loliine</i>
<i>limil-an-a</i>	cultivate for each other	*limilanile	<i>limiliine</i>
<i>lag-an-a</i>	bid farewell to each other	*laganile	<i>lagiine</i>
<i>sung-an-a</i>	keep for each other	*sunganile	<i>sungiine</i>

The illustration in (42) and the examples in Table 4.27 demonstrate the same condition and phonological processes as the verbs with CVCV(N)-root in Malila. Table 4.28 provides examples of imbrication induced by *-ile* to verbs with CVCV(N)-root in Malila.

Table 4.28: Imbrication in CVCV(N)-root in Malila

Stem	Gloss	<i>-ile</i> suffixation	Surfaceform
<i>sugama</i>	kneel down	sugamile	<i>sugiime</i>
<i>tendama</i>	stay	tendamile	<i>tendiime</i>
<i>gunzama</i>	bend/bow	gunzamile	<i>gunziime</i>

Table 4.28 has provided examples to demonstrate imbrication induced by *-ile* suffix when attached to verbs with CVCV(N)-root in Malila. The change from underlying form, as shown in the third column to the surface form, as shown in the last column

follow the same stages as illustrated in (42). However, the findings show that the verbs presented in the table above takes both regular and irregular *-ile* suffixation.

4.3.3.5 Imbrication in verbs with the passive and causative extensions in Malila

The findings show that *-ile* suffix induces imbrication to verbs with passive and causative extensions in Malila. Starting with the former, when the suffix is attached to verbs with passive extension *-u-*, it creates an opaque difference between the input form and the output form. Table 4.29 provides examples to illustrate the phonological change resulted from *-ile* suffixation to verbs with passive extension.

Table 4.29: Imbrication in verbs with the passive suffix in Malila

Stem	Passive	Gloss	<i>-ile</i>	Surface form
<i>simba</i>	<i>simbwa</i>	be written	*simbwile	<i>simbiilwe</i>
<i>saya</i>	<i>saywa</i>	be blessed	*saywile	<i>sayiilwe</i>
<i>paapa</i>	<i>paapwa</i>	be born	*paapwile	<i>paapiilwe</i>
<i>lima</i>	<i>limwa</i>	be cultivated	*limwile	<i>limiilwe</i>
<i>khoma</i>	<i>khomwa</i>	be beaten	*khomwile	<i>khomiilwe</i>
<i>kunga</i>	<i>kungwa</i>	be tied	*kungwile	<i>kungiilwe</i>
<i>pootwa</i>	<i>pootwa</i>	fail	*pootwile	<i>pootiilwe</i>

Table 4.29 has illustrated how *-ile* suffix creates a difference between the expected input form and the output form when it is attached to verbs with passive extension. When *-ile* suffix is attached to the verb *simbwa*, the expected form would be *simbwile*. However, the expected form changes into *simbiilwe*. This change does not involve loss of the *-ile* consonant and syllable reduction. But the change is shaped by metathesis where the passive morpheme moves to the final position before the final vowel [e]. This implies that the position for the passive morpheme is normally maintained. It is worth noting that in suffix ordering, the passive is always last.

Coming to the latter, *-ile* suffix induces imbrication to verbs with causative extension; *-esi-/isi-*, *-ezi-/izi-*. When *-ile* suffix is attached to verbs with causative extension as in *sundam-izi-a* ‘make one kneel down’, the expected form would be *sundamizyile*. However, the expected form *sundamizyile* changes into *sundamiziizye*

‘caused to kneel down’. Table 4.30 provides examples to illustrate this change that involves *-ile* suffixation to verbs with causative extension in Malila.

Table 4.30: Imbrication in verbs with causative extension in Malila

Stem	Gloss	<i>-ile</i>	Surface form
<i>sundam-izy-a</i>	let someone kneel down	*sundamizyile	<i>sundamiziizye</i>
<i>lol-esy-a</i>	show	*lolesyile	<i>lolesiizye</i>
<i>many-izy-a</i>	teach	*manyizyile	<i>manyiziizye</i>
<i>imb-izy-a</i>	cause one to sing	*imbizy-ile	<i>imbiziizye</i>
<i>tuuyizy-a</i>	cause fear	*tuuyizyile	<i>tuuyiziizye</i>

Table 4.30 has shown the extent to which *-ile* suffix creates a difference between the input (underlying) form, as shown in the third column and the output (surface) form, as shown in the last column when it is attached to verbs with causative extension. This change involves loss of the *-ile* consonant. However, the modified verb has the expected syllable count.

Generally, subsection 4.3.3 has presented the extent to which *-ile* suffix induces imbrication in Malila. Table 4.31 provides a summary to demonstrate regular and irregular *-ile* suffixation in Malila.

Table 4.31: Regular and irregular *-ile* suffixation in Malila

Verb root	Example	Gloss	Input	Output
Regular				
CVC-	<i>lim-a</i>	cultivate	<i>limile</i>	<i>limile</i>
Stative	<i>limikha</i>	cultivable	<i>limiike</i>	<i>limika</i>
CV:C-	<i>paala</i>	increase	<i>paalile</i>	<i>paalile</i>
C(G)VC-	<i>kwata</i>	dress	<i>kwatile</i>	<i>kwatile</i>
Irregular				
CV-	<i>fu-a (fwa)</i>	die	*fuile	<i>fuuye</i>
CVCV(N)-	<i>sundama</i>	kneel	*sundamile	<i>sundiime</i>
CVC+VC	<i>khom-an-a</i>	beat each	*khomanile	<i>khomiine</i>
		other		
	<i>lim-il-a</i>	cultivate for	*limilile	<i>limiye</i>
	<i>khom-el-a</i>	beat for	*khomelile	<i>khomeeye</i>
CVC+V	<i>simb-u-a</i>	be written	*simbwile	<i>simbiilwe</i>
CVC+VVCV-	<i>lol-esi-a</i>	show	*lolesyile	<i>lolesiizye</i>
	<i>many-izi-a</i>	teach	*manyizyile	<i>manyiziizye</i>

As presented in Table 4.31, imbrication in Malila has some unique features compared to Nyakyusa and Ndali. The main feature unique to Malila is that *-ile* induces imbrication to verbs with CV-root, which in Ndali and Nyakyusa, these verbs are regular. Also, Malila involves the compensatory vowel lengthening that occurs after the deletion of a vowel. However, to some extent, Malila and Ndali share one feature in that they all regard verbs with stative suffix as regular though in Malila *-ile* induces C-mutation. Therefore, the following subsection presents conditions for imbrication in Nyiha to be able to compare the conditions and phonological processes occurring in the language with the conditions and phonological processes presented in her sister languages.

4.3.4 Imbrication in Nyiha

As far as imbrication is concerned in Nyiha, based on the findings, verbs can be put into two groups, namely regular and irregular verbs. In Nyiha, the regular verbs involve CVC-roots and verbs with stative extension. Table 4.32 shows examples for regular *-ile* suffixation to regular verbs in Nyiha.

Table 4.32: Regular *-ile* suffixation in Nyiha

CVC-root		
Stem	Gloss	<i>-ile</i> suffixation
<i>bana</i>	dig	<i>banile</i>
<i>pana</i>	kick	<i>panile</i>
<i>lema</i>	hold	<i>lemile</i>
<i>pemba</i>	make fire	<i>pembile</i>
<i>lima</i>	cultivate	<i>limile</i>
Verb roots with stative suffixes <i>-eh-/ih-</i>		
<i>lim-ih-a</i>	be easy to cultivate	<i>limisile</i>
<i>bhomb-eh-a</i>	be doable	<i>bhombesile</i>
<i>mal-ih-a</i>	finished	<i>malisile</i>
<i>lem-eh-a</i>	be catchable	<i>lemesile</i>

Table 4.32 has provided examples of verbs that allow regular *-ile* suffixation in Nyiha. However, under certain conditions *-ile* suffix induces imbrication in this language, as presented in the following subsections.

4.3.4.1 Imbrication in Verbs with CV-root in Nyiha

The findings show that *-ile* suffix induces imbrication when attached to verbs with CV-root. While in Nyakyusa and Ndali the shorter verbs with CV-root are regular, in Nyiha and Malila these verbs are irregular because they involve imbrication. This kind of phonological change can be demonstrated using the verb *fu-a* ‘die’ with *fu-ile* as its underlying form that changes into *fuuye* (surface form) after attaching *-ile* suffix. The change from the underlying form *fuile* to the surface form *fuuye* is shaped by a set of phonological processes, as illustrated in (43).

- (43)
- | | |
|---|---------|
| Underlying form | /fuile/ |
| Stage 1: Deletion of [l] | /fuie/ |
| Stage 2: Insertion of ghost consonant [y] | /fuiye/ |
| Stage 3: Vowel assimilation | /fuuye/ |
| Surface form | [fuuye] |

The change that involves *-ile* suffix when it is attached to verbs with CV-root in Nyiha is shaped by three phonological processes, namely deletion of the consonant of the suffix, insertion of ghost consonant and vowel assimilation to break the [ui] into [uu]. Table 4.33 shows more examples to demonstrate imbrication induced by *-ile* suffix when it is attached to verbs with CV- root.

Table 4.33: Imbrication in verbs with CV-root in Nyiha

Stem	Gloss	<i>-ile</i> suffixation	Surface form	Gloss
<i>fwa</i>	die	*fwile	<i>áfuuye</i>	he died
<i>lwa</i>	fight	*lwile	<i>bháluuye</i>	they fought
<i>kwa</i>	pay dowry	*kwile	<i>ákuuye</i>	he paid dowry
<i>gwa</i>	fall down	*gwile	<i>águuye</i>	he fell down

Table 4.33 has provided more examples to illustrate imbrication induced by *-ile* suffix when it is attached to verbs with CV-root in Nyiha. The change from underlying form, as shown in the third column to the surface form, as shown in the last column follow the same stages as illustrated in (43).

4.3.4.2 Imbrication in verbs with CVCVC-root in Nyiha

The findings indicate that *-ile* suffix induces imbrication to verbs with CVCVC-root in Nyiha. When *-ile* suffix is attached to these verbs such as *sogola* ‘go’, the expected word would be *sogolile*. However, this word changes into *sogooye* ‘went’. This change from the expected form (underlying) to the output form (surface) is shaped by several phonological processes. Example in (44) illustrates stage by stage the phonological processes shaping this phonological change from the underlying form *sogolile* to the surface form *sogooye* in Nyiha.

(44)	Underlying form	/sogolile/
	Stage 1: Deletion of [l] (T/A)	/sogolie/
	Stage 2: CV metathesis	/sogoile/
	Stage 3: Deletion of [l] (coda)	/sogoie/
	Stage 4: Insertion of ghost consonant [y]	/sogoiye/
	Stage 5: Vowel assimilation [oi]-[oo]	/sogooye/
	Surface form	[sogooye]

Based on the illustration in (44), the change that involves *-ile* suffixation to verbs with CVCVC-root is shaped by five phonological processes. These are deletion of [l]; the consonant of T/A suffix, CV metathesis, deletion of [l]; the coda, insertion of ghost consonant and vowel assimilation. Table 4.34 provides more examples for the change involving *-ile* suffixation to verbs with CVCVC-root in Nyiha.

Table 4.34: Imbrication in verbs with CVCVC-roots in Nyiha

Stem	Gloss	<i>-ile</i>	Surface form
<i>sogola</i>	go	*sogol-ile	<i>sogooye</i>
<i>nyatula</i>	take	*nyatul-ile	<i>nyatuuye</i>
<i>londola</i>	seek/look for	*londol-ile	<i>londooye</i>
<i>sankula</i>	comb	*sankul-ile	<i>sankuuye</i>
<i>tungula</i>	pick fruits	*tungul-ile	<i>tunguuye</i>
<i>lombola</i>	get something lost by somebody	*lombol-ile	<i>lombooye</i>

The verbs presented in Table 4.34 have the same structure with that of Nyakyusa such as *sokola* ‘unhide’ some of which have been presented in Table 4.6, but these verbs differ in the phonological processes shaping the change from the underlying form to the surface form. For instance, the change from the input form *sokolile* to the output form *sokwile* in Nyakyusa is shaped by three phonological processes, namely deletion of [l]; the consonant of T/A suffix, CV metathesis and gliding while in Nyiha, the change to these verbs is shaped by five phonological processes as illustrated in (44).

4.3.4.3 Imbrication in verbs with reciprocal extension in Nyiha

The findings show that *-ile* suffix induces imbrication when attached to verbs with reciprocal extension *-an-*. When *-ile* suffix is attached to verbs with reciprocal extension *-an-* such as *lemana* ‘hold each other’, the expected form would be *lemanile*. However, the expected form changes into *lemiine* in Nyiha. Example in (45) illustrates stages and phonological processes involved in shaping the change from the expected form *lemanile* to *lemiine* in Nyiha.

(45)	Underlying form	/lemanile/
	Stage 1: Deletion of [l]	/lemanie/
	Stage 2: CV metathesis	/lemaine/
	Stage 3: Vowel deletion	/lemine/
	Stage 4: Compensatory vowel lengthening	/lemiine/
	Surface form	[lemiine]

This kind of change, as illustrated in (45) is shaped by four phonological processes, which are deletion of [l], CV metathesis, deletion of the vowel and compensatory vowel lengthening. Table 4.35 provides more examples to illustrate this phonological change (imbrication) involving *-ile* suffixation to verbs with reciprocal extension *-an-* in Nyiha.

Table 4.35: Imbrication in verbs with reciprocal extension in Nyiha

Stem	Gloss	-ile suffixation	Surface form
<i>lem-an-a</i>	hold each other	* <i>lemanile</i>	<i>lemiine</i>
<i>seh-ana</i>	laugh each other	* <i>sehanile</i>	<i>sehiine</i>
<i>lol-an-a</i>	see each other	* <i>lolanile</i>	<i>loliine</i>
<i>hom-an-a</i>	beat each other	* <i>homanile</i>	<i>homiine</i>
<i>lim-il-an-a</i>	cultivate for each other	* <i>limalanile</i>	<i>limiliine</i>
<i>son-el-an-a</i>	sew for each other	* <i>sonelanile</i>	<i>soneliine</i>
<i>som-el-an-a</i>	read for each other	* <i>somelanile</i>	<i>someliine</i>
<i>bhomb-el-an-a</i>	work for each other	* <i>bhombelanile</i>	<i>bhombeliine</i>

As Table 4.35 shows, some verbs to be extended with reciprocal morpheme *-an-* in Nyiha, need to be first extended with the applicative extension (see the last four rows). The phonological change induced by *-ile* suffix when attached to verbs with a reciprocal extension as illustrated in (45) behave in the same way as verbs with CVCV(N)- root such as *tendam-a* ‘sit down/stay’. The *-ile* suffix induces imbrication to verbs ending with a nasal as the coda for the last syllable of the stem in Nyiha. When the suffix is attached to this kind of verbs such as the verb *tendama*, the expected form would be *tendamile*. Instead, in Nyiha, this input form changes into *tendiime*. Example in (46) illustrates stages and phonological processes that have shaped the change from expected form *tendamile* to the surface form *tendiime* in Nyiha.

- (46)
- | | |
|---|-------------|
| Underlying form | /tendamile/ |
| Stage 1: Deletion of l | /tendamie/ |
| Stage 2: CV metathesis | /tendaime/ |
| Stage 3: Vowel deletion | /tendime/ |
| Stage 4: Compensatory vowel lengthening | /tendiime/ |
| Surface form | [tendiime] |

The change involving *-ile* suffix to these verbs is shaped by four phonological processes which are deletion of the [l], CV metathesis, deletion of a vowel occurring before another vowel and compensatory vowel lengthening. These phonological

processes adhere to rule ordering where one process needs to be applied first before another one. Table 4.36 demonstrates more examples for the phonological change that involves *-ile* suffixation to verbs with CVCV(N)-root in Nyiha.

Table 4.36: Imbrication in verbs with CVCV(N)-roots in Nyiha

Verb	<i>-ile</i> suffixation	Surface form
<i>galama</i> ‘lie on your back’	*galamile	<i>galiime</i>
<i>shindama</i> ‘be well established’	*shindamile	<i>shindiime</i>
<i>sulama</i> ‘bend your head down’	*sulamile	<i>suliime</i>
<i>tendama</i> ‘sit’	*tendamile	<i>tendiime</i>
<i>sundama</i> ‘kneal down’	*sundamile	<i>sundiime?</i>

4.3.4.4 Imbrication in verbs with causative and passive extensions in Nyiha

The findings show that *-ile* induces imbrication in Nyiha when the suffix is attached to verbs with causative extension; *-esi-/isi-*, *-ezi-/izi-* and passive extension *-u-*. Starting with the former, when *-ile* is attached to the verb with a causative extension as in *bhombesya* ‘cause one to work’ the expected (input) form would be *bhombesyile*. However, this expected word *bhombesyile* changes into *bhombesiizye* as the output form. Table 4.37 provides more examples to illustrate the phonological change (imbrication) caused by *-ile* suffix when attached to verbs having causative extension in Nyiha.

Table 4.37: Imbrication in verbs with the causative extension in Nyiha

Stem	Gloss	<i>-ile</i> suffixation	Surface form
<i>som-esy-a</i>	cause to learn	*somesyile	<i>somesiizye</i>
<i>hom-ezy-a</i>	cause to beat	*homezyile	<i>homeziizye</i>
<i>sundam-izy-a</i>	let somebody kneel down	*sundamizyile	<i>sundamiziizye</i>
<i>bhomb-esy-a</i>	cause one to work	*bhombesyile	<i>bhombesiizye</i>
<i>hom-esy-a</i>	let one fight	*homesyile	<i>homesiize</i>
<i>lim-isy-a</i>	let one cultivate	*limisyile	<i>limisiizye</i>
<i>lol-esy-a</i>	let one see something	*lolesyile	<i>lolesiizye</i>

As shown in Table 4.37, the *-ile* consonant is lost but the modified verb has the expected number of syllables. This is to say, the change does not involve syllable reduction.

Coming to the latter, the findings show that *-ile* suffix induces imbrication when attached to verbs with passive extension in Nyiha. For instance, the word *homa* ‘beat’ with a passive extension *-u-* becomes *homwa* ‘be beaten’. When *-ile* suffix is attached to the word *homwa*, the expected input form would be *homwile*. However, in Nyiha, this input form changes into *homiilwe* as its output form. Table 4.38 provides examples to illustrate imbrication in verbs with passive extension in Nyiha.

Table 4.38: Imbrication in verbs with a passive extension in Nyiha

Verb	Passive	Gloss	<i>-ile</i> suffixation	Surface form
<i>hom-a</i>	<i>hom-u-a</i>	be beaten	*homwile	<i>homiilwe</i>
<i>lim-a</i>	<i>lim-u-a</i>	be cultivated	*limwile	<i>limiilwe</i>
<i>simb-a</i>	<i>simb-u-a</i>	be written	*simbwile	<i>simbiilwe</i>
<i>lema</i>	<i>lem-u-a</i>	be arrested	*lemwile	<i>lemiilwe</i>

As shown in Table 4.38, the *-ile* consonant is not lost and the modified verb has the expected number of syllables. However, the passive morpheme moves to the position between the consonant of the T/A suffix and the final vowel *-e* through the process called metathesis. Then metathesis is followed by compensatory vowel lengthening to fill the position of the passive morpheme after moving to another position. Hyman (1995) supports this analysis by pointing out that *-ile* process that makes the glide (passive suffix) to occur between *-il-* formative and its final vowel *-e* is common across Bantu languages, and such fact provides clear evidence that *-ile* consists of two morphs, *-il-* and *-e*.

4.3.4.5 Imbrication in verbs with applicative extension in Nyiha

The findings show that *-ile* suffix induces imbrication when attached to verbs with applicative extension in Nyiha. When *-ile* suffix is attached to verbs with applicative extension such as *lim-il-a* ‘cultivate for’, the expected form would be *limilile*. However, the expected form in Nyiha changes into *limiye* as the output form. Example in (47) illustrates stages and phonological processes shaping the change from *limilile* (input/underlying form) to *limiye* (output/surface form) in Nyiha.

(47) a. Underlying form	/limilile/
Stage 1: Deletion of [l]; consonant of T/A suffix	/limilie/
Stage 2: CV metathesis	/limiile/
Stage 3: Deletion of [l]; consonant of applicative	/limiie/
Stage 4: Insertion of ghost consonant [y]	/limiye/
Surface form	[limiye]
(47) b. Underlying form	/homelile/
Stage 1: Deletion of [l]; consonant of T/A suffix	/homelie/
Stage 2: CV metathesis	/homeile/
Stage 3: Deletion of [l]; consonant of applicative	/homeie/
Stage 4: Insertion of ghost consonant [y]	/homeiye/
Stage 5: Rightward spread of vowel height	/homeeye/
Surface form	[homeeye]

The change that involves *-ile* suffixation to verbs with applicative form *-il-* in Nyiha is shaped by four phonological processes. These are deletion of [l]; the consonant of T/A suffix, CV metathesis, deletion of [l]; the consonant of the applicative extension, and insertion of ghost consonant [y] to break a sequence of three vowels. Also, the phonological change to the verb with applicative form *-el-* is shaped by five phonological processes. However, the two applicative forms differ in two features. While imbrication in verbs with the *-il-* form involves the insertion of ghost consonant to break the [iie], in the *-el-* form, the insertion of the ghost consonant breaks the [eie] and it is followed by rightward spread of the vowel height. Table 4.39 provides more examples for the phonological change involving *-ile* suffixation to verbs with applicative extension.

Table 4.39: Imbrication in verbs with applicative extension in Nyiha

Stem	Gloss	-ile	Surface form
<i>lem-el-a</i>	arrest for	*lemel-ile	<i>lemeeye</i>
<i>kal-il-a</i>	buy for	*kalil-ile	<i>kaliye</i>
<i>hom-el-a</i>	beat for	*homel-ile	<i>homeeye</i>
<i>sumb-il-a</i>	throw for	*sumbil-ile	<i>sambiiye</i>
<i>lim-il-a</i>	cultivate for	*limil-ile	<i>limiye</i>
<i>bhomb-el-a</i>	work for	*bhombel-ile	<i>bhombeeye</i>

4.3.4.6 Imbrication in verbs with C(G)VC and CV:C-roots in Nyiha

The findings show that *-ile* suffix induces imbrication when attached to verbs with C(G)VC-root, as in *zwala* ‘dress’, and CV:C-root, as in *paala* ‘praise’. Starting with the former, when *-ile* suffix is attached to the verb *zwala*, the expected form would be *zwalile*. However, the expected form changes into *zwaye* in Nyiha. Coming to the latter, the expected form after attaching *-ile* suffix to the verb *paala* would be *paalile*. However, this expected form (*paalile*) changes into *paaye* in Nyiha. Table 4.40 summarizes the verbs with the said structures to illustrate imbrication in the said verbs in Nyiha.

Table 4.40: Imbrication in verbs with C(G)VC- and CV:C-roots in Nyiha

Imbrication to C(G)VC-root			
Stem	Gloss	-ile suffixation	Surface form
<i>zwala</i>	dress	*zwalile	<i>zwaye</i>
<i>twala</i>	bring	*twalile	<i>twaye</i>
Imbrication to CV:C-root			
<i>bhoola</i>	slaughter	*bhoolile	<i>bhooye</i>
<i>paala</i>	praise	*paalile	<i>paaye</i>
<i>puula</i>	grind	*puulile	<i>puuye</i>
<i>zuula</i>	undress	*zuulile	<i>zuuye</i>
<i>waala</i>	plant	*waalile	<i>waaye</i>

However, the conditions for imbrication as demonstrated in Table 4.40 do not satisfy all verbs of the said structures. In other words, the findings indicate that not all verbs with C(G)VC- and CV:C-roots imbricate in Nyiha. For instance, the verbs with the same CV:C-root but whose final consonants are [d], [t], [nt] and [nd] such as *loota* ‘dream’ and *bhunda* ‘drink’ do not imbricate instead the suffix *-ile* induces consonant mutation to these verbs in Nyiha as presented in 4.4.1. The fact that some verbs with C(G)VC- and CV:C-roots are irregular and some are regular in Nyiha provides more evidence that innovation involving *-ile* suffix across Bantu languages starts to follow the more regular *-ile* pattern.

Generally, subsection 4.3.4 has presented the extent to which *-ile* suffix induces imbrication in Nyiha. Table 4.41 provides a summary to demonstrate regular and irregular *-ile* suffixation in Nyiha.

Table 4.41: Regular and Irregular *-ile* suffixation in Nyiha

Verb root	Example	Gloss	Input	Output
Regular <i>-ile</i> suffixation				
CVC-	<i>lim-a</i>	cultivate	<i>limile</i>	<i>limile</i>
Stative	<i>lim-ih-a</i>	cultivable	<i>limihile</i>	<i>limisile</i>
	<i>lem-eh-a</i>		<i>lemehile</i>	<i>lemesile</i>
Irregular <i>-ile</i> suffixation				
CV-	<i>fu-a (fwa)</i>	die	* <i>fuile</i>	<i>fuuye</i>
CVCVC-	<i>sogola</i>	go	* <i>sogolile</i>	<i>sogooye</i>
CVCV(N)-	<i>tendama</i>	sit/stay	* <i>tendamile</i>	<i>tendiime</i>
CVC+VC	<i>hom-an-a</i>	beat each	* <i>homanile</i>	<i>homiine</i>
		other		
	<i>lim-il-a</i>	cultivate for	* <i>limilile</i>	<i>limiye</i>
	<i>hom-el-a</i>	beat for	* <i>homelile</i>	<i>homeeye</i>
CVC+VCV-	<i>simbwa</i>	be written	* <i>simbwile</i>	<i>simbiilwe</i>
	<i>lol-esi-a</i>	show	* <i>lolesyile</i>	<i>lolesiizye</i>
	<i>many-izi-a</i>	teach	* <i>manyizyile</i>	<i>manyiziizye</i>
CV:C-	<i>hoola</i>	cry loudly	<i>hoolile</i>	<i>hooye</i>
C(G)VC-	<i>zwala</i>	dress	<i>zwalile</i>	<i>zwaye</i>

As shown in Table 4.41, verbs with CVC-root and stative extension are regular in Nyiha. Irregular verbs in Nyiha are similar to that of Malila in terms of the conditions for imbrication as well as phonological processes shaping this phonological change. However, the remarkable difference between Nyiha and Malila as far as imbrication is concerned, is that while some C(G)VC-root and CV:C-root are irregular in Nyiha, the same verbs are regular in Malila.

4.4 Consonant Mutation

In chapter two, it has been pointed out that across Bantu languages; C-mutation can be induced by prefixes and suffixes, leading to left-edge and right edge mutation, respectively. However, the findings of the present study indicate that *-ile* (it is the vowel of the suffix) induces the right edge C-mutation. Therefore, the following subsection presents findings on c-mutation induced by the vowel of the suffix across the four selected languages forming the Nyasa-Tanganyika corridor. Among the four selected languages, only two languages, namely Malila and Nyiha demonstrate right-edged C-mutation as a result of *-ile* suffixation under varying conditions.

4.4.1 C-Mutation in Malila and Nyiha

The *-ile* suffix (the high vowel of the suffix) induces consonant mutation to several consonants occupying the final position of the verb roots in Malila and Nyiha. The first set of consonants affected by *-ile* suffixation includes the voiceless velar fricative [x] and the glottal [h]. Table 4.42 provides examples to demonstrate C-mutation in verbs ending with a glottal sound in Nyiha (M23) and the voiceless velar fricative in Malila (M24).

Table 4.42: C-mutation in verbs ending with [x, h] in Malila and Nyiha

Stem	Gloss	-ile suffixation	Surface form	
			M24	M23
<i>telekha/teleha</i>	cook	*tele(k)h-ile	<i>telesh-ile</i>	<i>teles-ile</i>
<i>zyukha/zyuha</i>	rise from the dead	*zyu(k)hile	<i>zyush-ile</i>	<i>zyus-ile</i>
<i>bhiikha/bhiiha</i>	put something	*bhii(k)hile	<i>bhiish-ile</i>	<i>bhiis-ile</i>
<i>suukha/suuha</i>	emit smoke	*su(k)hile	<i>suush-ile</i>	<i>sus-ile</i>
<i>tuukha/tuuha</i>	go ahead of	*tuu(k)hile	<i>tuush-ile</i>	<i>tuus-ile</i>
<i>galukha/galuha</i>	return	*galu(k)hile/	<i>galush-ile</i>	<i>galus-ile</i>
<i>damukha/damuha</i>	wake up	*damu(k)hile	<i>damush-ile</i>	<i>damus-ile</i>
<i>fikha/fiha</i>	arrive	*fi(k)hile	<i>fish-ile</i>	<i>fis-ile</i>
<i>lekha/leha</i>	stop	*le(k)hile	<i>lesh-ile</i>	<i>les-ile</i>

As presented in Table 4.42, in Malila the voiceless velar fricative mutates into voiceless palate-alveolar fricative [ʃ], whereas in Nyaha, the glottal [h] changes into voiceless alveolar fricative [s]. This mutation involves change in the place of articulation. In Malila, the velar changes into palate-alveolar, i.e. [x > ʃ] and in Nyiha the glottal changes into alveolar, i.e. [h > s], the change which is technically called deglottalization where the glottal sound changes into a non-glottal sound.

The second set of consonants that is affected by *-ile* suffixation is [g] and/or [ŋg]. When *-ile* suffix is attached to verbs whose roots end with the voiced velar stop [g], such as *goga* ‘kill’ or the pre-nasalised stop [ŋg], it mutates the consonants. Table 4.43 provides examples to illustrate C-mutation due to *-ile* suffixation to regular verbs ending with [g] and [ŋg] in Nyiha and Malila.

Table 4.43: C-mutation in verbs ending with [g] and [ŋg] in Malila and Nyiha

Stem	Gloss	-ile	Surface form	
		suffixation	M24	M23
<i>goga</i>	kill	*gogile	<i>gojile</i>	<i>gozile</i>
<i>teega</i>	get lost	*teegile	<i>teejile</i>	<i>teezile</i>
<i>zuga</i>	cook/stir	*zugile	<i>zujile</i>	<i>zuzile</i>
	ugali			
<i>ega</i>	take/marry	*egile	<i>ejile</i>	-
<i>longa</i>	speak	*longile	<i>lonjile</i>	-
<i>yangá</i>		*yangile	-	<i>yanzile</i>
<i>bhinga</i>	hunt	*bhingile	<i>bhinjile</i>	-

Some of the examples presented in Table 4.42 demonstrate similar lexical realization but *-ile* process creates a slight difference. In Malila the voiced velar stop [g] changes into voiced palate-alveolar affricate [ɟ] whereas in Nyiha, [g] changes into [z]. In Malila, this mutation involves both, change in place of articulation under the processes called palatalization (involving place feature), as in [g>ɟ]. It also involves change in manner of articulation under the process called affrication where the obstruent/stop becomes affricate (see Myers, 1994). However, in Nyiha, the mutation involves a change in the manner of articulation through the process called spirantization; the stop [g] becomes fricative [z], as in [g>z]. Also, the same change in Nyiha involves place of articulation where the velar becomes an alveolar.

The findings indicate that in Malila, the vowel of the T/A suffix under the realm of C-mutation affects three consonants which are [x], [g] and [ŋg]. However, in Nyiha, the vowel of the T/A suffix affects even more consonants. Beyond these three consonants, the *-ile* suffix induces C-mutation in Nyiha to verbs whose roots end [t], [d], [nd], [b], [p], [β] and [l]. Table 4.44 illustrates C-mutation to verbs whose roots end with [t], [d], and [nd] in Nyiha.

Table 4.44: C-mutation in verbs ending with [t, d] in Nyiha

Stem	gloss	-ile	Surface form
<i>kaata</i>	sleep	*kaatile	<i>kaasite</i>
<i>loota</i>	dream	*lootile	<i>loosite</i>
<i>leeta</i>	bring	*leetile	<i>leesite</i>
<i>lita</i>	be tired	*litile	<i>lisite</i>
<i>fwata</i>	follow	*fwatile	<i>fwasite</i>
<i>pota</i>	make a rope	*potile	<i>posite</i>
<i>poota</i>	fail	*pootile	<i>poosite</i>
<i>kuuta</i>	cry	*kuutile	<i>kuusite</i>
<i>laata</i>	repent	*laatile	<i>laasite</i>
<i>puuta</i>	pray	*puutile	<i>puusite</i>
<i>buda</i>	suffocate	*budile	<i>buzite</i>
<i>tunda</i>	urinate	*tuundile	<i>tuunzite</i>
<i>bhanda</i>	smoothen ugali	*bhaandile	<i>bhaanzite</i>
<i>tenda</i>	cut	*teendile	<i>teenzite</i>
<i>bhunda</i>	drink	*bhuundile	<i>bhunzite</i>
<i>handa</i>	wash clothes	*handile	<i>hanzite</i>

The examples presented in Table 4.44 show a change (mutation) [t] into [s], [d] into [z] as well as [nd] into [nz]. This mutation involves a change in the manner of articulation where the alveolar stops /obstruents [t, d] become alveolar fricatives [s, z].

Also, *-ile* induces C-mutation to verbs whose roots end with either a voiceless bilabial stop [p] or a voiced bilabial stop [b] in Nyiha. Table 4.45 illustrate C-mutation to verbs ending with [p] and [b] in Nyiha.

Table 4.45: C- mutation in verbs ending with [p] and [b] in Nyiha

Stem	Gloss	-ile suffixation	Surface form
<i>sipa</i>	seduce	*sipile	<i>sifile</i>
<i>yeepa</i>	escape	*yeepile	<i>yeefile</i>
<i>paapa</i>	give birth	*paapile	<i>paafile</i>
<i>lipa</i>	pay	*lipile	<i>lifile</i>
<i>fipa</i>	suck	*fipile	<i>fifile</i>
<i>hopa</i>	borrow	*hopile	<i>hofile</i>
<i>diba</i>	cut	*dibile	<i>divile</i>

The examples provided in Table 4.45 show a change (mutation) of the voiceless bilabial stop [p] into a voiceless labio-dental fricative [f]. Also, the voiced bilabial stop [b] changes into a voiced labial-dental fricative [v]. This mutation involves a change in the manner of articulation where the obstruents [p, b] become fricatives [f, v]. It also involves a change in place of articulation where the bilabial sounds [p, b] become labio-dental sounds [f, v].

Also, in Nyiha, fricativization/spirantization involves a change of a liquid into a fricative. Table 4.46 provides examples to illustrate spirantization that involves a liquid into fricative in Nyiha.

Table 4.46: C-mutation in verbs ending with [l] in Nyiha

Stem	gloss	-ile suffixation	Surface form
<i>kala</i>	buy	*kalile	<i>kazile</i>
<i>mala</i>	finish	*malile	<i>mazile</i>
<i>kula</i>	grow	*kulile	<i>kuzile</i>
<i>mila</i>	swallow	*milile	<i>mizile</i>
<i>bhola</i>	decay	*bholile	<i>bhozile</i>
<i>bhala</i>	pass/go	*bhalile	<i>bhazile</i>
<i>pala</i>	scrape	*palile	<i>pazile</i>

The examples provided in Table 4.46 have illustrated spirantization that involves a liquid [l] changing into a fricative [z] without change of place of articulation.

The last consonant affected by *-ile* suffixation in Nyiha is the voiced bilabial fricative [β]. When *-ile* suffix is attached to verb roots ending with [β], it induces C-mutation. Table 4.47 illustrates C-mutation to verbs whose roots end with [β] in Nyiha.

Table 4.47: C-mutation in verbs whose roots end with [b] and [β] in Nyiha.

Stem	<i>-ile</i>	Surface form	Gloss
<i>siɪβa</i>	think	*siibhile	<i>siivile</i>
<i>laβa</i>	ask for	*labhile	<i>lavile</i>
<i>zuβa</i>	climb	*zubhile	<i>zuvile</i>
<i>seβa</i>	gather firewood	*sebhile	<i>seville</i>
<i>haβa</i>	overstay	*habhile	<i>havile</i>

The examples provided in Table 4.47 demonstrate C-mutation in Nyiha where the voiced bilabial fricative [β] changes (mutates) into voiced labio-dental fricative [v] after attaching *-ile* suffix. This C-mutation involves a change in place of articulation where the bilabial [β] changes into a labio-dental [v].

Generally, subsection 4.4 has presented the phonological change involving *-ile* suffix in the realm of C-mutation. Across the four languages, C-mutation is attested in Malila and Nyiha only. In Malila, only three consonants of the verb roots are affected by *-ile* suffixation. These consonants are [h] which mutates into [ʃ], the voiced velar stop [g] which changes into [ɟ] and the pre-nasalized stop [ŋg] mutating into [ŋɟ]. However, in Nyiha, the vowel of T/A suffix induces C-mutation to seven more consonants. Table 4.48 provides a summary to illustrate the magnitude of C-mutation in Nyiha.

Table 4.48: Summary of C-mutation in Nyiha

Mutating	Examples		
	consonants	verb	gloss -ile suffixation
t, h > s		<i>kaata</i>	sleep <i>kaasite</i>
b, β > v		<i>diba</i>	cut <i>divile</i>
g, l, d > z		<i>bhola</i>	decay <i>bhozile</i>
p > f		<i>yeepa</i>	escape <i>yeefile</i>
nd > nz		<i>jenda</i>	walk <i>jenzile</i>
ŋg > nz		<i>zenga</i>	build <i>zenzile</i>

The fact that Nyiha has seven more consonants affected by the vowel of T/A suffix than those in Malila implies that there is a full C-mutation in Nyiha (a 5-vowel language) whereas in Malila (the 7-vowel language) there is a limited C-mutation. This analysis supports the view by Labrouiss (1999) who points out that the 5-vowel languages such as Rungu (M14) and Fipa (M13) experience full spirantization whereas the 7 vowel languages experience limited spirantization.

4.5 Chapter Conclusion

This chapter has presented the phonological evolution of *-ile* suffix across the four selected Bantu languages. The analysis made in this chapter supports the view that *-ile* suffix is phonologically changing (evolving). The phonological change involving *-ile* suffix in this chapter has been presented in the realms of the changing phonetic forms, imbrication and consonant mutation. The findings presented in this chapter show that imbrication is the major feature of the *-ile* suffixation process and generally reduces the size of the verb form i.e. it reduces the number of syllables. The following are more notes to this chapter as far as imbrication is concerned.

- i) In general extended forms (whether productive or already frozen) satisfy the basic conditions for imbrication. But in some other verbs particularly verbs with CV:C- and C(G)VC- roots, imbrication is in danger since the forms are undergoing regular *-ile* suffixation.

- ii) Also, quite obvious the process of imbrication involves deletion of the consonant in *-ile*, followed by metathesis whereby the last consonant of the stem fills the empty slot caused by the deletion of [l].
- iii) The various adjustments that follow (vowel coalescence or deletion of one vowel and lengthening of another) are meant to resolve hiatus (dissimilar vowel sequences are not allowed).
- iv) The modified (imbricated) verb form is shorter (has fewer syllables than expected); but the exceptions is noted in the Malila and Nyiha verbs with causative and passive extensions where there is the same number of syllables between the input and output forms.

Generally, this chapter concludes that some patterns involving *-ile* processes are common across the four languages, some are shared by two languages and others are unique to an individual language. In this view, the variations indicate differences in the pace of innovations across the four languages. However, the judgement about whether one language is the most innovative or conservative to change, one has to rely on individual dimensions. For instance, based on the findings presented in this chapter, Ndali is the most conservative of all the languages regarding the change involving the phonetic forms of *-ile* suffix because the *-ite* which is the earliest form of the suffix is more widely used than the *-ile* form. Also, Ndali has fewer conditions and phonological processes shaping imbrication compared to Nyakyusa, Nyiha and Malila. Whereas regarding the conditions shaping imbrication and phonetic forms, Nyakyusa is relatively the most innovative of all the languages examined because Nyakyusa has more conditions than Ndali, Nyiha and Malila. However, based on phonological processes shaping imbrication to verbs with an applicative extension, Nyiha and Malila are more innovative than Nyakyusa and Ndali because in the languages (Nyiha and Malila) these verbs are shaped by more phonological processes.

CHAPTER FIVE

EVOLVING MORPHOLOGICAL PROPERTIES OF *-ile* SUFFIX

5.1 Introduction

This chapter presents the evolving (changing) morphological properties¹⁹ of *-ile* suffix. The chapter responds to two interdependent objectives which are to; examine the properties of *-ile* suffix in relation to tense and aspect marking across the selected languages in the Nyasa-Tanganyika corridor; and identify other inflectional morphemes that work in conjunction with *-ile* suffix across the selected Bantu languages in the Nyasa-Tanganyika corridor.

5.2 The Morphological Properties of *-ile* Suffix

This section presents the evolving morphological properties of *-ile* suffix in relation to tense and aspect marking. The main goal of this section is to answer the question on the role of the suffix as either a tense or an aspect marker across these four selected Bantu languages. In specifying the roles of *-ile* suffix, the findings show that sometimes the suffix does not stand alone, instead, it works in conjunction with pre-root morphemes to mark different tense categories. The following subsection presents the morphological properties of *-ile* suffix in marking tense as well as other inflectional morphemes (formatives) that work in conjunction with the suffix.

5.2.1 The Morphological Properties of *-ile* Suffix in Marking Tense

The analysis of the properties of *-ile* suffix in marking tense across the four languages under study considered the theoretical perspective of tense as guided by Reichenbach linear theory and cognitive theory. Considering that tense refers to the inflectional category morphologically marked in the verb; allowing speakers to relate situations to some points in time, most likely the time of speaking (Saeed, 2003), the analysis focuses on identifying inflectional morphemes for different categories of tense across the four languages to the time these morphemes denote. To identify inflectional morphemes for tenses in relation to time (tense remoteness),

¹⁹This is concerned with inflectional morphology within which verbal categories such as person, number; polarity, case, gender, tense/aspect and mood are the candidates (Kiango, 2000). Therefore, ‘morphological properties of *-ile* suffix’ in this work has been used to denote two main things, namely the roles of *-ile* suffix in the verb and the position of *-ile* to other inflectional categories of the verb.

temporal adverbials (such as now, in the morning, yesterday, last week/month/year and long time ago) were involved. As pointed out in chapter two that *-ile* suffix marks tense in some languages, therefore, the present study attempts to identify different tense categories to establish whether or not the selected languages involve *-ile* suffix in encoding tense.

The findings of this study indicate that the languages under investigation represent Bantu languages which have a complex tense system. These languages have multiple tenses due to speakers' innovation of the traditional model of three tense distinctions. For instance, Malila, Nyiha and Ndali have three past tenses (remote past, yesterday past and today past) and two future tenses (near and far future). In the same view of innovation, based on the form, Malila, Nyiha and Ndali have up to six tenses while Nyakyusa has three tenses, namely past, present and future.

In encoding these different tense categories, the languages vary considerably in terms of the number of tense categories in which *-ile* is a candidate as well as the nature of other formatives that work in conjunction with *-ile* suffix in the verbs. Since tense forms a system (Nurse, 2008), and in order to specify the properties of *-ile* suffix in the realm of tense marking, it is worth examining the extent to which all categories of tense are encoded in these respective languages by identifying forms with their meaning (the concern of Reichenbach's linear theory) and the context in which the forms are used to denote these tenses (the concern of cognitive theory).

The fact that three out of the four languages have up to six tenses, then the Reichenbach's model needs to be modified to suit the symbolic representation of tense categories in these languages. Figure 5.1 illustrates the symbolic representation of tense categories using a modified linear model.

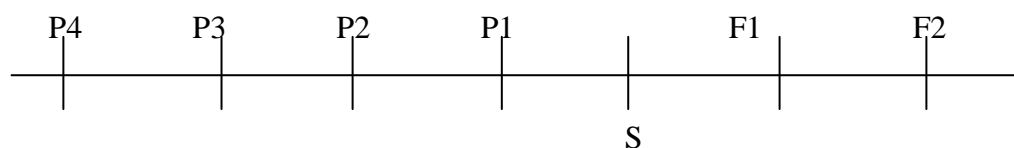


Figure 5.1: Tense categories in Nyiha, Malila and Ndali

The symbolic representation of tenses in these languages as presented in figure 5.1 has adopted Ps and Fs model as proposed by Kershner (2002). In this model, letter P stands for past and F for future. P4 stands for remote past, P3 for yesterday past, P2 for today past, P1 for anterior, S for present tense, F1 for near future and F2 for far future. These tense categories have forms representing them as shown in Table 5.1.

Table 5.1: Summary of tense categories in M23, M24, M301 and M31

Symbol	Function	Forms/ constructions	Languages
P4	Remote past	<i>SM/H-θ-...-ile/ -ka...a</i>	[M23, M24]/[M301]
P3	Yesterday past	<i>-a-...-ile</i>	[M23], [M24], [M301], [M31]
P2	Today past	<i>-θ-...-ile</i>	[M23], [M24], [M301]
P1	Anterior	<i>-a-...-a</i>	[M23], [M24], [M301]
S	Present	<i>-ku-</i>	[M23], [M24], [M301], [M31]
F1	Near future	<i>kwe-θ-...-e</i>	[M23]
		<i>-ti-...-e</i>	[M24]
		<i>ti-θ-...-e</i>	[M301]
F2	Far future	<i>-li-...-a</i>	[M23]
		<i>-ka-...-yi-...-a</i>	[M24]
		<i>ti-θ-...-ka-...-e</i>	[M301]
F	Future	<i>a-...-ku-...-a</i>	[M31]

Table 5.1 has presented the forms for different tense categories across the four languages under study. The following sub-sections then present the forms with their meaning as well as the context in which these forms are used to denote different tense categories in the four languages.

5.2.1.1 The -ile suffix in marking remote past

With remote past, as pointed out earlier that in eliciting data for different pasts through interviews as a follow-up strategy, temporal adverbials were used to account for time interval within which a particular morpheme revolves around. The findings show that, the remote past verb forms in Malila, Nyiha and Ndali denote the

events/situations that go beyond speakers' memory. The common phenomena that go beyond speakers' memory include; the falling of natural bodies from the sky such as an asteroid, birth and resurrection of Jesus, fiction in stories as well as when referring to what the forefathers did. Remote²⁰ past, therefore, implies the situation/event that happened a long time ago which is beyond speakers' memory. Examples in (48) demonstrate how remote past is encoded in Ndali [M301], Nyiha [M23] and Malila [M24].

- (48) a. *abhaJelemaní bha-ka-tu-twaal-il-a amaleshi ni fibhiliti* [M301]
 Germans SM-P4-OM-bring-APPL-FV finger millet and matches
 'The Germans brought for us finger millet and matches'
- b. *ishimondo shá-guuye ku shijiji sha Ndolezi* [M23]
 the asteroid SM/H-VBimbr to village of Ndolezi
 'The asteroid fell down in Ndolezi village'
- c. *ishitaabu ishi shá-simbiilwe nu Luuka* [M24]
 the book this SM/H-VBimbr by Luke
 'This book was written by Luke'

As presented in (48), the remote past construction in Ndali has no *-ile* suffix rather it is denoted by morpheme *-ka-* occurring in slot 4 in the verb with the *-a* as its final vowel (FV). However, in Malila and Nyiha, the remote past is marked by a combination of a high tone placed on the subject marker (SM) for affirmative construction. Examples in (49) demonstrate a different way of placing tone in remote past forms in a negative sentence in Malila and Nyiha.

- (49) a. *umuzungu a-tá-lees-ite amashine aga kusoholela ikahawa* [M23]
 The white SM-Neg/H-bring-P4 machine for processing coffee
 'The white did not bring machine for processing coffee'
- b. *umuzungu a-tá-leet-ile amawuwa ku mwitu ku Malila* [M24]
 the white SM-Neg/H-bring-P4 pyrethrum to our to Malila
 'The white brought pyrethrum in our Malila land'

The examples presented in (49) have shown that in negative construction, the remote past in Malila and Nyiha is marked by *-ile* suffix with a high tone placed on the

²⁰ The term remote past is more appropriate than far past because the languages under study inflect for more than two pasts.

negative marker different from the affirmative construction where the high tone is placed on the subject marker. The fact that tone is involved in marking remote past with *-ile* suffix necessitated the use of praat in measuring tone. Two sentences denoting two different tense categories, namely remote past and yesterday past were recorded for comparison purpose. The first sentence was about the falling of an asteroid in the village called Ndolezi, and the second sentence was about the falling of a particular vessel yesterday. Figures 5.2 and 5.3 demonstrate the difference in tone between the two aforementioned sentences whose English translation is ‘the asteroid fell in Ndolezi’ and ‘the vessel fell yesterday’.

Ishimondo sháguuye

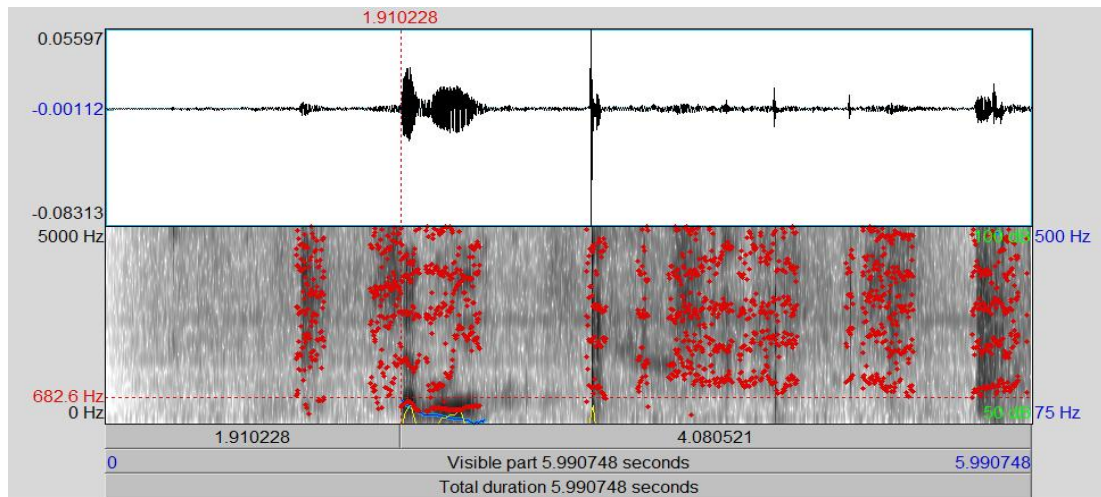


Figure 5.2: High tone marking remote past in Nyiha

Ishimondo shaaguuye

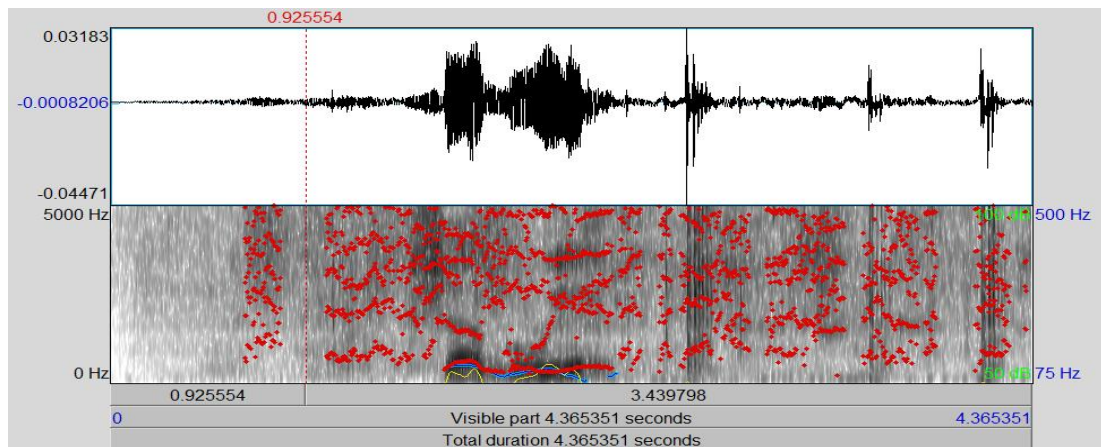


Figure 5.3: Normal tone in Nyiha

In order to distinguish the two figures; 5.2 and 5.3, attention should be paid on the starting points of the blue lines. For the first figure, the blue line starts relatively at a higher position than the blue line in the second figure. This indicates that the first sentence about the falling of asteroid in Ndolezi begins with a high tone while the sentence about the falling of a particular vessel yesterday does not begin with a high tone. This gives a proof that the remote past form has a high tone mounted on the subject marker whereas yesterday past does not.

5.2.1.2 The *-ile* suffix in marking yesterday past

The yesterday past is sometimes called hesternal past. In this work, this tense category is symbolically represented by P3. Yesterday past in these languages denotes events/situation that happened in the past starting from the day after today. Then, it moves in the continuum to the time when speakers still have the memory of the events/situation/action. Yesterday past forms may co-occur with temporal adverbials such as yesterday, before yesterday, last month and last year. Examples in (50) illustrate how the forms encode hesternal (yesterday) past across the four languages.

- (50) a. *igolo* *tu-a-dumuuye* *amakwi aminji nu kugapemba* [M23]
 before yesterday SM-P3-VBimb trees many and burnt them
 ‘Before yesterday we cut many trees and burnt them’
- b. *mazubha* *tu-a-sogooye* *ku Mbeya ku kazya amawuwa* [M24]
 yesterday SM-P3-VBimbr to Mbeya to sell pyrethrum
 ‘Yesterday we went to Mbeya to sell pyrethrum’
- c. *ichinja ichwo* *cha-a-kind-a* *tu-a-pat-ite* *ifilombe fyingi* [M301]
 year that SM-P1-pass-FV SM-P3-get-P3 maize many
 ‘Last year we harvested a lot of maize’
- d. *bha-a-bhuk-ile* *ku-kyaliki* *mmajolo* [M31]
 SM-PST-go-PST inf-church yesterday
 ‘They went to church yesterday’

The examples presented in (50) have demonstrated how yesterday past (which is the same as past tense in Nyakyusa) is encoded across the four languages. This tense category is denoted by a combination between the morpheme *-a-* occurring at slot 4 in the verb and *-ile* suffix. The form for this tense category as shown in the examples presented in (50) is common across the four languages. Also, there is no change of the form with regard to this tense category in either affirmative or negative construction.

5.2.1.3 The *-ile* suffix in today past

The today past is symbolically represented by P2. This tense category implies that the event or activities took place some hours ago since the today's sun rise. The today past is equivalent to hodiernal past. The term hodiernal is derived from Latin word 'hodie' which means today (Muzale, 1998; Namulemu, 2004). Examples in (51) demonstrate how today past is encoded in Ndali [M301], Nyiha [M23] and Malila [M24].

- (51) a. *abho Nakalulu bha-kin-ite umupila ubhwisa* [M301]
 the Nakalulu SM-θ-play-P2 football nice
 'The Nakalulu team played football well'
- b. *bha-θ-mal-ile ukuyebhela amawuwa* [M24]
 SM-θ-finish-P2 harvest pyrethrum
 'They finished harvesting pyrethrum'
- c. *bha-θ-maz-ile ukuvunza amangagu* [M23]
 SM-θ-finish-P2 harvest maize
 'They finished harvesting maize'

As presented in (51), in Ndali, Nyiha and Malila, the today past is marked by *-ile* suffix occurring with zero formatives at slot 4 in the verb structure. In this view, it assumes the *-θ-...-ile* construction across these three languages. The form for this tense category in Ndali, Nyiha and Malila does not change even when the sentence is in negative construction.

5.2.1.4 Present tense

This tense category form is used when the reference point [R], Event time [E] and speech time [S] occur together. The findings indicate that the present tense does not involve the *-ile* suffix. Examples in (52) illustrate the form for present tense across Ndali, Malila, Nyiha and Nyakyusa.

- (52) a. *abhaana* *bha -ku -ly-a* *amashabhala* [M301]
 children SM-pres-eat-FV groundnuts
 ‘The children eat groundnuts’
- b. *ubibi* *a-ku-kwat-a* *ishitenje shimashiima* [M24]
 grandmother SM-pres-dress-FV kitenge everyday
 ‘My grandmother wears kitenge everyday’
- c. *bha-ku-dib-a* *amakwi* [M23]
 SM-pres-cut-FV trees
 ‘They cut trees/they are cutting trees’
- d. *kwa Kyela kuno tu-ku-byaal-a* *imikooko na mabhwese* [M31]
 in Kyela here SM-pres-plant-FV cocoa and palm trees
 ‘Here in Kyela we plant cocoa and palm trees’

As demonstrated by examples in (52), the present tense form across the four selected languages has no *-ile* rather it is marked by *-ku-* occurring in slot 4 of the verb. However, the analysis of present tense marker *-ku-* in these languages is ambiguous because it denotes present tense on the one hand, and present progressive aspect (see the glosses in 52c) on the other hand. Yet, the roles of the marker *-ku-* can be disambiguated through speakers’ consciousness of the time partition as well as the use of temporal adverbials.

5.2.1.5 Future tense

This tense category has forms that slightly vary across the four languages. In Ndali, Nyiha and Malila, the future has two different forms which are symbolically represented by F1 and F2 whereas in Nyakyusa there is only one form that denotes

future. Examples presented in (53) illustrate the forms for F1 in Ndali, Nyiha and Malila.

- (53) a. *ti-bha-mu-pimb-ish-e* *umushigo umukulu* [M301]
 F1-SM-OM-carry-C-FV load big
 ‘They will let him/her carry a heavy load’
- b. *bha-ti-bhal-e* *ku-mbeeya shamandi* [M24]
 SM-F1-go-FV inf-mbeya later
 ‘They will go to Mbeya later today’
- c. *kwe tu-kazy-e* *ikahawa shinishi* [M23]
 F1 SM-sell-FV coffee after a while
 ‘We will sell coffee after a while’

The examples presented in (53) have demonstrated how F1 is encoded in Ndali, Nyiha and Malila. The examples show that there is variation among these three languages in terms of the forms that denote the future (F1). As presented in (53a), F1 in Ndali is denoted by morpheme *ti-* occurring at slot 1 in the verb with *-e* as its final vowel whereas, in Malila, F1 is denoted by the same morpheme *-ti-* but in this language, the morpheme occurs at slot 4 in the verb with morpheme *-e* as the final vowel. In this view, while F1 in Ndali takes the *ti-...-θ-...-e* form, in Malila, F1 takes the *-ti-...-e* construction. However, in Nyiha, F1 form involves *kwe* which appears as a separate word with another verb whose final vowel is *-e*, hence assuming the *kwe-θ-...-e* construction. Also, examples in (54) demonstrate how F2 is encoded in Ndali, Malila and Nyiha.

- (54) a. *ti -bha -ka-lim-e* *ifilombe* [M301]
 F2-SM-F2-cultivate-FV maize
 ‘They will cultivate maize’
- b. *tu-li-kazy-a* *ikahawa kulinda indabhi* [M23]
 SM-F2-sell-FV coffee after tomorrow
 ‘We will sell coffee after tomorrow’
- c. *kulinda indabhi tu-kha-yi-kazy-a amangagu* [M24]
 after tomorrow SM-TA-F2-FV maize
 ‘After tomorrow we will sell maize’

The examples provided in (54) show that F2 has different forms across Ndali, Nyiha and Malila. In Ndali, it is marked by a combination between the slot 1 morpheme *ti* and the slot 4 morpheme *-ka-* with morpheme *-a* as the final vowel. In Nyiha and Malila, F2 is marked by *-li-* and *-yi-* (slot 4 morphemes) respectively. As pointed out earlier, in Nyakyusa there is only one form for the future. Examples in (55) demonstrate how the future is encoded in Nyakyusa.

- (55) a. *a -tu-ku-bhuuk-a* *piitasi*
 FUT-SM-inf -go-FV later
 ‘We will go later’
- b. *a-tu-ku-bhyal-a* *ifilombe* *kilabho*
 FUT-SM-inf-plant-FV maize tomorrow
 ‘We will plant maize tomorrow’

As presented by examples in (55), the future time in Nyakyusa is marked by a pre-SM marker *a-* co-occurring with formative *-ku-* occurring in slot 4 of the Nyakyusa verb group. This denotes a situation that follows speech time (ST) and may co-occur with future temporal adverbials, namely *piitasi* ‘later’ *kilabho* ‘tomorrow’ and *kulinda kilabho* ‘the day after tomorrow’.

This subsection (5.2.1) has presented how different tense categories are encoded across the four selected languages. In this presentation, the position of *-ile* suffix in marking different pasts has been highlighted. The findings demonstrate that *-ile* suffix has extended its role into tense marking. The sub-section has also shown how *-ile* suffix works in conjunction with other inflectional morphemes to denote different past tense categories. However, the findings indicate that the suffix *-ile* also marks different categories of aspect across these selected languages. Therefore, the following sub-section presents the position of *-ile* suffix in marking aspect.

5.2.2 The properties of *-ile* suffix in marking aspect

As pointed out in chapter two, in practice there is a challenge to distinguish aspect from tense due to conceptual overlap semantically, there is no doubt that scholars such as Lyons (1968), Bybee and Dahl (1989) and Kiango (2000) have been able to

identify different aspect categories. Some of these categories are anterior, non-progressive aspect and indefinite conditional aspect. Since the focus of this subsection is to specify the properties of *-ile* suffix in relation to aspect marking, the current study focuses on how these categories are encoded in relation to *-ile* suffix to account for its morphological evolution across the four languages under study.

5.2.2.1 Anterior/perfect (ive) aspect.

Anterior can be defined as the point of speech being contained in R (point of reference) as diagrammatically illustrated in figure 5.4.

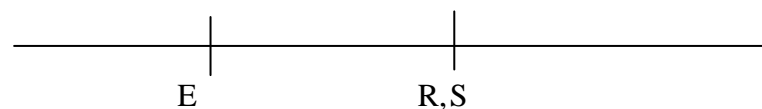


Figure 5.4: Perfective being contained in R

Source: Adopted from Reinhach (1947)

Following the conceptual overlap between the terms **perfective** and **tense**, scholars such as Kiango (2000) and Bostoen (2008) treat perfective in the same way as anterior²¹. Also, Bybee and Dahl (1989) regard perfect as similar to anterior. In this view, this study as well prefers to use the term **anterior** to perfective or perfect. The term generally refers to the completion of an action or event expressed by the verb but having an influence on the present.

The findings indicate that there are variations on how the four languages express anterior in relation to *-ile* suffix. Examples in (56a-d) demonstrate variation among the languages under study on how the anterior is inflected in Nyakyusa, Ndali, Nyiha and Malila.

- (56) a. *ummanyisi* *a-bha-kyap-ile* *abhasukulu abha bhakyeliigwe* [31]
 The teacher SM-OM-cane-ANT pupils who have come late
 ‘The teacher has just caned pupils who have come late

²¹ Also, Nurse (2003) supports this view by suggesting the reduction of the Latinate terms for aspect categories which are numerous in order to make them become more transparent. In this view the anterior (ANT) is treated in the same way as perfect or retrospective.

b. *umumanyishi a-a-bha-chap-a* *abhaana bho bha-a-chelighw-a* [M301]

The teacher SM-ANT-OM-cane-FV pupils who have come late

‘The teacher has just caned pupils who have come late

c. *iselikali* *ya -a-tu-leet-el-a* *ihela izya maua* [M24]

Government SM-ANT-OM-bring-Appl-FV money for pyrethrum

‘The government has just brought for us the money for pyrethrum’

d. *ivwama vya ushilika* *vu-a-kal-a (vwakala) ikahawa yoonti*[M23]

Cooperative unions SM-ANT-buy-FV coffee all

The cooperative unions have just bought all the coffee’

The examples provided in (56) show that while Nyakyusa uses the *-θ-...-ile* form for anterior/perfect(ive) as shown in (56a), Ndali, Malila and Nyiha uses the *-a-...-a* form as shown in (56b-d). In other words, *-ile* suffix occurring alone inflect for anterior in Nyakyusa whereas in Ndali, Nyiha and Malila, *-ile* suffix does not inflect for anterior. This variation among these sister languages implies that the role of the suffix changes over time.

5.2.2.2 The *-ile* suffix in marking non-progressive aspect

According to Lyons (1968), non-progressive aspect is denoted by stative²² verbs. However, the findings of the present study indicate that across the four selected languages, non-progressive aspect is denoted by stative verbs and some inchoative verbs, particularly with transitional and resultative interpretation (see Kershner, 2001). These verbs do not take a progressive form. Table 5.2 illustrates the forms for non-progressive aspect across Nyakyusa, Ndali, Nyiha and Malila.

²²In the classification of the Bantu verbs, Lusekelo (2007) points out that with stative verbs, it is difficult to realize the beginning, the continuation and the ending of the situation encoded by the verbs.

Table 5.2: The *-ile* suffix in marking the non-progressive aspect

verbs	Example	Gloss	language
<i>gana</i>	<i>Jeesu a-θ-tu-gan-ile twesa</i>	Jesus loves us all	M31
	<i>u-Jeesu a-θ-tughan-ite tweshi</i>	Jesus loves all of us	M301
	<i>uyeesu a-θ-bhagan-ile abhantu bhakwe</i>	Jesus loves his people	M24
	<i>uyeesu a-θ-bha-sungwiziizye abhantu bhakwe</i>	Jesus loves his people	M23
	<i>umwana umutunda a-a-mu-gan-a umwana uwashilindu</i>	the boy loves the girl	M24
<i>bhina</i>	<i>umwana a-θ-bhin-ile</i>	the child is sick	M31
	<i>umwana a-θ-bhin-ite/ a-abhin-a</i>	the child is sick	M301
	<i>umwana a-θ-bhinile/ a-abhin-a</i>	the child is sick	M24
<i>hobhoka</i>	<i>a-θ-hobhwike</i>	s/he is happy	M31
<i>lita/katala</i>	<i>a-θ-lis-ite / a-θ-kateele</i>	s/he is tired	M23,24/M31,

Table 5.2 has provided examples to illustrate the position of *-ile* suffix in marking the non-progressive aspect. In all the four languages, *-ile* suffix denotes non-progressive aspect. In this view, this analysis supports the statement made by Botne (2010) that “it seems certain that *-ile* was, originally, a perfective marker used initially with change-of-state achievement verbs in a resultative interpretation”. This means, non-progressive aspect by involving verbs with resultative interpretation, is also regarded as perfective aspect. On top of the *-θ-...-ile* construction, depending on the situation, the *-a-...-a* construction is used in Malila, Nyiha and Ndali. For example, when a person is generally sick, speakers of Ndali, Nyiha and Malila say *a-bhin-ile* ‘he is sick’ but when one is travelling and on the way, he gets sick, then the speakers say *a-a-bhin-a* ‘he is sick’.

5.2.2.3 Indefinite conditional aspect

Kiango (2000) points out that indefinite conditional aspect is common in Bantu languages. This observation has been supported by the findings of this study in that

across the selected languages the forms used for the anterior and non-progressive aspect are also used to express the indefinite conditional aspect. Examples in (57a-c) illustrate the variation of the forms for indefinite conditional aspect across selected languages.

(57) a. *linga u-kwel-ile, a-tu-ku-kuul-il-a injinga* [M31]

If SM-pass-ANT, FUT-SM-FUT-buy-Appl-FV bicycle
‘If you pass the exam, we will buy you a bicycle’

b. *inga ghu-a-kwel-a, ti-tu-ka-kuul-il-e injinga* [M301]

when SM-ANT-pass-FV F2-SM-F2-buy-A-FV bicycle
‘If you pass the exam, we will buy you a bicycle’

c. *nga u-a-kwel-a (wakwela), kwe tu-ku-kal-il-e injinga* [M23]

If SM-ANT-pass-FV, F1 SM-OM-buy-A-FV bicycle
‘If you pass the exam, we will buy you a bicycle’

d. *inge u-a-tuuh-a (watuuha) umutihani, tu-ti-ku-kal-il-e injinga* [M24]

If SM-ANT-pass-FV exam, SM-F1-OM-buy-A-FV bicycle
‘If you pass the exam, we will buy you a bicycle’

The examples provided in (57) indicate that in Nyakyusa, the indefinite conditional aspect takes the form of *linga* (if) + *-θ-...-ile* +future while in Ndali, Malila and Nyiha this aspect takes the form of *nga/inge* (if) +*-a-...-a* + future. As presented in (57), the indefinite conditional aspect in Nyakyusa involves the *-ile* suffix while in Ndali, Nyiha and Malila the *-ile* suffix is not involved.

5.2.2.4 Other uses of the *-θ-...-ile* and *-a-...-a* forms across the languages

The findings of the present study show that there are other situations in which the forms for anterior and/or non-progressive aspect are used. These situations include salutation, compliment and thanksgiving.

With salutation, the findings show that normally speakers of these languages mention the state or activity in which they are involved when they greet one another.

Table 5.3 demonstrates forms and situations under which Nyakyusa, Ndali, Nyiha and Malila speakers greet one another.

Table 5.3: The use *-ile* suffix in salutation

Nyakyusa	Ndali	Malila	Nyiha	Context
<i>mugonile</i>	<i>mu-agona</i>	<i>mwagona</i>	<i>mwakata</i>	meeting someone in the morning/for the first time
<i>mulembwike</i>	<i>mwalembuka</i>	<i>mwadamukha</i>	<i>mwadamuha</i>	in the morning
<i>mubhombile</i>	<i>mwabhomba</i>	<i>mwabhomba</i>	<i>mwawomba</i>	at work
<i>mulimile</i>	<i>mwalima</i>	<i>mwalima</i>	<i>mwalima</i>	when digging/ cultivating
<i>mutondwile</i>	<i>mwinula</i>	<i>mwayebhela</i>	<i>mwavunza</i>	when harvesting
<i>mupijile</i>	<i>mwapija</i>	<i>mwateleha</i>	<i>mwateleha</i>	when someone has given you some food

From the examples presented in Table 5.3, two forms have been identified. The forms are *-θ-...-ile* and *-a-...-a*. While Nyakyusa uses the form with *-ile*, Ndali, Nyiha and Malila use the form without *-ile* suffix. This variation in the forms used by Nyakyusa speakers against the three sister languages is the evidence for the evolution of the suffix in aspect marking.

Also, the *-θ-...-ile* and *-a-...-a* forms are used in giving compliment for a particular situation or something done wonderfully. In this context, Nyakyusa speakers use the form with *-ile* while Ndali, Malila and Nyiha use the form without *-ile* suffix. For example, when a particular person has built a very beautiful house, normally Nyakyusa speakers would compliment by saying ‘*u-jeng-ile!*’ while Ndali speakers would say ‘*ghwajenga!*’ and Malila and Nyiha would say ‘*weeya wa-a-zenga!*’ and ‘*wa-a-zeng-a*’ respectively.

Finally, the *-θ-...-ile* and *-a-...-a* forms can be used to show one’s gratitude particularly when someone has done something pleasant. In this context, Nyakyusa uses the form with *-ile* suffix but Ndali, Malila and Nyiha use the form without the

suffix. For example, when someone has prepared some food for you; in Nyakyusa you will need to say (*ndaga*) *upijile* as a way of thanksgiving, whereas in Ndali you may say (*ndagha*) *ghwapiija* but in Malila and Nyiha you will need to say *wateleha*. Likewise, when someone has done something important for you; in Nyakyusa you will need to say *u-bhomb-ile*, in Ndali you will need to say *ghwa-bhomb-a* but in Malila and Nyiha you will need to say *wa-salip-a*.

Section 5.2.2 has presented findings to illustrate the properties of *-ile* suffix in aspect marking. The findings presented have shown how the suffix expresses anterior, non-progressive aspect, indefinite conditional aspect as well as other situations (such as salutation, compliment, and thanksgiving). Variations were noted regarding the forms/constructions used to express anterior, non-progressive, indefinite conditional aspect and other aforementioned situations across the languages under study. In some instances *-ile* suffix is involved in expressing the presented aspect categories while in other instances the suffix does not. These variations across the four languages regarding whether *-ile* suffix is involved or not when expressing different aspect categories provide the evidence for the changing morphological properties of *-ile* suffix.

5.2.3 Synthesis on the morphological evolution of *-ile* suffix

Section 5.2.1 has presented how different tense categories are encoded in Malila, Nyiha, Ndali and Nyakyusa from which the properties of *-ile* suffix in relation to tense marking can be specified. The presentation of different tense categories has been done by identifying tense forms for each category with their meaning under the framework of Reichenbach's linear theory. However, the establishment of the context in which the forms are being used to denote tense in these languages has been done under the framework of the cognitive theory. Therefore, *-ile* suffix under these two aforementioned theories marks different tense categories across the four languages. However, among the four languages under study, there is a variation on the number of tense categories in which *-ile* suffix is a candidate. Table 5.4 provides a summary of different tense categories particularly the past tenses to illustrate this variation among the selected languages.

Table 5.4: The past tense forms involving *-ile* suffix across the four languages

tenses	M23	M24	M301	M31
P4	<i>-á-...-ile</i>	<i>-á-...-ile</i>	<i>-ka-...-a</i>	
P3	<i>-a-...-ile</i>	<i>-a-...-ile</i>	<i>-a-...-ile</i>	<i>-a-...-ile</i>
P2	<i>-θ-...-ile</i>	<i>-θ-...-ile</i>	<i>-θ-...-ile</i>	

Table 5.4 has shown clearly the variation in terms of number of categories in which *-ile* is the candidate. For instance, in Malila and Nyiha *-ile* marks three tense categories, namely remote past (P4), yesterday past (P3) and today past (P2). In Ndali, *-ile* suffix marks two tense categories, namely yesterday past (P3) and today past (P2) whereas in Nyakyusa *-ile* marks one tense category which is past tense similar to yesterday (P3) past of Ndali, Malila and Nyiha. In this regard, this analysis suggests that the role of *-ile* suffix is restricted to past events/situation/activities.

In marking these different past tenses across the four languages, *-ile* suffix co-occurs with pre-root formatives. For instance, in marking remote past in Malila and Nyiha, the suffix co-occurs with high tone placed on either subject marker (affirmative construction) or negative marker (negative construction). This renders a close relationship between the *-ile* suffix and either subject marker (slot 2) or negative marker (slot 3) in Malila and Nyiha. Also, in marking yesterday past across the four languages, *-ile* suffix co-occurs with pre-root morpheme *-a-* occurring at slot 4 in the verb but in marking today past in Ndali, Malila and Nyiha *-ile* suffix occurs alone. The analysis of how different tense categories are encoded across the four languages reveals a significant change in the encoding of tense from the traditional one. It has been pointed out by Nurse and Philippson (2006) that although tense is traditionally marked by pre-root morphemes and aspect by post-root morphemes, a change has occurred, where some languages encode tense and aspect by pre-root morphemes while other languages encode both tense and aspect by a combination between pre-root morphemes and post-root morphemes.

The findings of the present study show that in the four languages, tense is encoded by a combination between pre-root and post-root morphemes. This change in the encoding of tense in these languages has led to the dependence of a number of tense

and aspect formatives including *-ile* suffix. For instance, the pre-root formative *-a-* is dependent on *-ile* suffix and vice versa, as the two formatives co-occur to mark past tense (yesterday past). This co-occurrence between pre-root formative *-a-/high* tone and *-ile* suffix denotes past tenses (remote past and yesterday past) as opposed to past perfective. These pre-root formatives co-occurring with *-ile* in this context are bound to perform one role in the verb; the split of these formatives may result in signaling different categories of tense or aspect. For instance, a sentence with *-a-* formative only marks anterior but *-ile* alone marks today past in Nyiha, Malila and Ndali, whereas in Nyakyusa *-ile* alone marks anterior as presented in 5.2.2. 1. This conclusion on the co-occurrence between *-ile* suffix and the pre-root morpheme *-a-* as denoting simple past tense and not past perfective has been reached following the fact that tense (past) and aspect (perfective/perfect) do not co-occur in a single verb across the selected languages.

The morphological evolution of the role of *-ile* suffix manifests itself in a variation of innovation and retention reached. This is done by comparing innovations among the four languages under study which are genetically related. The fact that three categories of tense in Malila and Nyiha, two in Ndali and one in Nyakyusa involve *-ile* suffix implies that the role of *-ile* suffix is not the same across the selected languages. This variation in the roles of *-ile* suffix across these sister languages implies that the suffix is morphologically evolving. Generally, the suffix has extended its traditional role (marking aspect) since the Proto-Bantu into marking tense. However, this suffix has not totally discarded its traditional role (aspect marking) in these languages, as section 5.2.2 shows.

The data presented in section 5.2.2 show that the anterior construction (*-a-...-a*) in Malila, Nyiha and Ndali has no *-ile* suffix while in Nyakyusa the anterior form (*-θ-...-ile*) has *-ile*. Table 5.5 provides a summary of aspect forms for different categories in which we can notice clearly the concept of evolution of the suffix.

Table 5.5: Summary on the changing properties of *-ile* suffix in marking aspect

Category	M31	M301	M24	M23
anterior	- θ -...-ile	-a-...-a	-a-...-a	-a-...-a
non-progressive	- θ -...-ile	-a-...-a/- θ -...-ile	-a-...-a/- θ -...-ile	-a-...-a/- θ -...-ile
indefinite	- θ -...-ile	-a-...-a	-a-...-a	-a-...-a
conditional aspect				
salutation	- θ -...-ile	-a-...-a	-a-...-a	-a-...-a
compliment	- θ -...-ile	-a-...-a	-a-...-a	-a-...-a
thanks giving	- θ -...-ile	-a-...-a	-a-...-a	-a-...-a

The summary provided in Table 5.5 shows that, in Nyakyusa, *-ile* suffix is involved in all the five categories of aspect presented. However, in Ndali, Nyiha and Malila, the suffix is involved in only one category which is the non-progressive aspect. In this view, since the four languages are closely related, the assumption made behind the status of *-ile* suffix is that the suffix has disappeared in Malila, Nyiha and Ndali but retained in Nyakyusa. With specific attention to anterior, it is assumed that *-ile* suffix has disappeared in Ndali, Nyiha and Malila. Therefore, the anterior, in these languages, has the *-a-...-a* form. This is supported by Nurse (2008) who analyzed sample Bantu languages and concluded that ϕ -...-ile is the most common form for anterior in Bantu languages.

The argument for the disappearance of *-ile* suffix as far as the anterior marking is concerned is evident in Nyakyusa negative construction. For instance, when the negative marker *-ka-* is introduced in a sentence with the anterior form, the *-ile* suffix disappears but the suffix remains in a sentence with the past tense form. However, in Malila, Nyiha and Ndali in any construction with *-ile* suffix that is *á- θ -...-ile*, *-a-...-ile*, and *- θ -...-ile*, the negative marker does not cause the disappearance of the suffix. Examples in (58) demonstrate the disappearance of *-ile* suffix in Nyakyusa when the negative marker *-ka-* is introduced to support the concept of evolution of the suffix in aspect marking.

Affirmative	Negative
(58) a. <i>bha-sop-ile umpunga</i>	<i>bha-ka -sop-a umpunga</i>
SM-sow-ANT rice	SM-Neg-sow-FV rice
‘They have sown rice’	‘They have not sown rice’

b.	<i>bha-a-sop-ile</i>	umpunga	<i>bha-ka -a-sop -ile</i>	<i>umpunga</i>
	SM-PST-sow-PST	rice	SM-Neg-PST-sow-PST	rice
	‘They sowed rice’		‘They did not sow rice’	
c.	<i>a-son-ile</i>	<i>umwenda</i>	<i>a-ka-son-a</i>	<i>umwenda</i>
	SM-sew-ANT	clothes	SM-Neg-sew-FV	clothes
	‘S/he has sewn clothes’		‘S/he has not sewn clothes’	
d.	<i>a-a-son-ile</i>	<i>imienda</i>	<i>a-ka-a-son-ile</i>	<i>imienda</i>
	SM-PST-sew-PST	clothes	SM-Neg-PST-sew-PST	clothes
	‘S/he sewed clothes’		‘S/he did not sew clothes’	

The examples presented in (58 a & c) have illustrated the disappearance of *-ile* suffix when marking anterior in Nyakyusa, but the same suffix remains when it marks past tense, as illustrated in (58 b & d). In other words, in Nyakyusa the *-θ-...-ile* construction which denotes aspect (anterior) drops the suffix *-ile* when a negative marker *-ka-* is introduced. However, the *-a-...-ile* which denotes past tense in Nyakyusa does not drop *-ile* suffix when the negative marker is introduced. However, in Ndali, Malila and Nyiha, the *-θ-...-ile* does not drop the *-ile* suffix when the negative marker is introduced. This implies that the *-θ-...-ile* form in Ndali, Malila and Nyiha has a different function from the *-θ-...-ile* form in Nyakyusa.

To sum up, it is worth noting that although the suffix was traditionally a perfective marker, it co-occurs with pre-root formatives to mark different past tenses, namely remote past, yesterday past and today past in Malila, Nyiha and Ndali. In Nyakyusa, the suffix is both an aspect marker when it occurs alone and a past tense marker when it co-occurs with a pre-root marker *-a-*. In the same view of change, the anterior form; *-θ-...-ile* in Nyakyusa extends its functions into marking today past and yesterday past in combination with the temporal adverbials *nulubhunju* ‘in the morning’ and *mmajolo* ‘yesterday’ respectively. When this form, *-θ-...-ile* denotes anterior (the category of aspect) the temporal adverbial *lululu* ‘just now’ is optional. Lusekelo (2007) supports this argument by pointing out that the *-θ-...-ile* form marks perfective with its temporal adverbial *lululu* ‘just now’ and recent past

(denoting events occurred today morning) with the aid of *nulubhunju* ‘in the morning’ as its temporal adverbial. Additionally, the *-a-...-ile* form (which primarily denotes yesterday past) extends its function into denoting remote past in Nyakyusa. Examples in (59) demonstrate the extension of the anterior form *-θ-...-ile* in marking today past and yesterday past and the form for yesterday past in marking remote past in Nyakyusa in combination with temporal adverbials.

(59) a. *bhabha a-θ-bhuuk-ile kutempeli*

Father SM-θ-go-ANT to church

My/our father has gone to church

b. *bhabha a-θ-bhuuk-ile ku-Mbwani nulubhunju*

Father SM-θ-go-P2 Inf-coast in the morning

‘My/our father has gone to Dar es Salaam’

c. *bhabha a-θ-bhuuk-ile mbulaja mmajolo*

Father SM-θ-go-P3 in Europe yesterday

My/our father went to Europe yesterday

d. *bhabha a-a-bhuuk-ile mbulaja ijolofijo*

Father SM-P4-go-P4 in Europe very long time ago

‘My/our father went to Europe very long time ago’

Referring to the examples in (59), the example in (59a) demonstrates that the *-θ-...-ile* form traditionally denotes an anterior²³ (ANT) in Nyakyusa. However, the same form with a temporal adverbial *nulubhunju* ‘in the morning’ the suffix denotes today past (P2) and with a temporal adverbial *mmajolo* ‘yesterday’, it denotes yesterday past (P3). Also, the original P3 form *-a-...-ile* with *ijolo* ‘long time ago’, it denotes remote past (P4) in Nyakyusa. Given the fact that the Nyakyusa *-θ-...-ile* form extends its functions with the aid of temporal adverbials (but the anterior does not necessarily require temporal adverbials), we can therefore conclude that the role of *-ile* suffix is changing.

²³Nurse and Muzale (1999), as well as Mwangoka, and Voorhoeve (1960) point out that *-ile* suffix occurring alone originally denotes perfect/anterior across Bantu.

5.3 Chapter Conclusion

This chapter has presented the morphological change involving *-ile* suffix. Regarding the status of the suffix as either a tense or an aspect marker, the findings of this study show that the suffix is both a tense and an aspect marker in the four selected languages. It is reasonably concluded that the *-ile* suffix is the point where tense and aspect merge in the languages under study, and that scenario is widespread in Bantu. This conclusion supports the general statement made by Botne (2010) that the evolution of *-ile* is of particular interest as it sheds light on possible developmental paths leading to perfectives, perfects (anterior), and pasts. The data presented in this chapter demonstrate that the suffix *-ile* is a tense marker because it is involved in marking different past tenses, namely remote past (M23 & M24), yesterday past (in all the four languages) and today past (M301, M23 & M24). It is also an aspect marker as it marks different categories of aspect, namely anterior, indefinite conditional (M31) and non-progressive aspect (M31, M301, M23 & M24). In marking these tense categories (except for the today past), the suffix *-ile* co-occurs with the pre-root formatives. Across the languages examined, *-ile* suffix works in conjunction with morphemes falling under slots 2, 3, 4 and 5 when performing its roles in the verb. Regarding marking different aspect categories, the *-ile* suffix occurs alone. This implies that *-ile* suffix was traditionally an aspect marker.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter closes the study by synthesizing the results presented in chapter four and five. It provides a summary of the study, conclusion and recommendation for further study.

6.2 Summary of the Study

The main goal of this study was to investigate phonological and morphological changes involving *-ile* suffix across Bantu languages forming the Nyasa-Tanganyika corridor. Therefore, this study sought to achieve three specific objectives. First, to describe phonological changes associated with *-ile* suffixation across the selected Bantu languages in Nyasa-Tanganyika corridor. Second, to examine the properties of *-ile* suffix in relation to tense and aspect marking across selected languages in the Nyasa-Tanganyika corridor. Lastly, to identify other inflectional morphemes that work in conjunction with *-ile* suffix across the selected languages in the Nyasa-Tanganyika corridor.

The first objective has been covered in chapter four. The findings presented in chapter four indicated that *-ile* suffix is phonologically evolving. It has been established that the *-ile* suffix manifests itself into three phonetic forms, that is *ite*, *-ile* and *-ie*. These *-ile* forms are used under varying conditions in the four languages. In Ndali, Nyiha and Nyakyusa two forms of the suffix exist under different conditions. Table 6.1 summarizes the forms of *-ile* suffix in terms of the number of *-ile* forms in a language, the conditions and domain of use of the forms in the four languages.

Table 6.1: Summary of *-ile* forms attested in the four languages

Language	Phonetic forms	Possible condition	Widely used form
M301	<i>-ite</i> & <i>-ile</i>	<i>-ile</i> restricted to CV-roots	<i>-ite</i>
M23	<i>-ite</i> & <i>-ile</i>	<i>-ite</i> restricted to regular verbs whose final consonants are; [t], [d], [nt], [nd].	<i>-ile</i>
M31	<i>-ile</i> & <i>-ie</i>	<i>-ie</i> used in connected speech (common in spoken form)	<i>-ile</i>
M24	<i>-ile</i>	To all verbs	<i>-ile</i>

In Ndali, two forms of the suffix which are *-ite* and *-ile* exist under varying condition and domain of use. In this language, the *-ile* form has relatively a narrower domain of use. It is restricted to verbs with CV-roots. These verbs across Bantu are very few (see, Kula, 2001). However, all other regular verbs accept *-ite* form in Ndali language. In Nyiha two forms of *-ile* exist just like in Ndali. However, the difference is that while in Ndali, the *-ite* form is widely used, in Nyiha, the *-ile* form is widely used compared to the *-ite* form. The *-ite* form in Nyiha is restricted to regular verbs whose final consonants are [t], [d] and [nd] only. In Nyakyusa, *-ile* and *-ie* forms exist. While the *-ile* form is widely used in Nyakyusa, the *-ie* form has a restricted domain of use. It is sometimes used in connected speech. Finally, in Malila there exists only one form of the suffix which is the *-ile* form.

Also, the findings (as presented in chapter four) indicate that *-ile* suffix induces imbrication and C-mutation under varying conditions across the four languages. To start with imbrication, findings show that this phonological change occurs under different conditions within and across the four languages. Table 6.2 summarizes conditions under which *-ile* induces imbrication across the four languages.

Table 6.2: Summary of the conditions for imbrication

Condition(s)	M31	M301	M23	M24
Verbs with CV-	-	-	+	+
Verbs with applicative	+	+	+	+
Verbs with reciprocal	+	-	+	+
Verbs with stative	+	-	-	-
Verbs with causative	+	+	+	+
Verbs with passive	+	+	+	+
C(G)VC- (some verbs such as <i>bhyala/zwala/kwata</i> ,	+	-	+	-
CV:C- (some verbs such as <i>bhaala/hoola</i>)	+	-	+	-
CVCVC- with [k], or [kh], or [h] as the coda	+	-	-	-
Verbs with CV:C(G)- such as <i>leefya</i>	+	-	-	-

Table 6.2 has shown the conditions under which *-ile* suffix induces imbrication. Variations have been noted regarding the conditions for imbrication across the four languages. For instance, while in Nyakyusa all verb extensions condition imbrication, in Ndali verbs with stative and reciprocal extensions do not imbricate. Also, in Nyiha and Malila the verbs with the stative extension do not imbricate rather *-ile* suffix induces consonant mutation. It has been pointed out that *-ile* suffix makes an opaque difference between the input (underlying) form and output (surface) form. This difference is stage by stage shaped by a set of phonological processes. Table 6.3 provides a summary for the phonological processes shaping imbrication to account for commonalities and variations.

Table 6.3: Summary of phonological processes across selected languages

Processes	Conditions	M31	M301	M23	M24
Deletion of *l; the tense/aspect suffix	All	+	+	+	+
Deletion of *l; the applicative suffix	Applicative	-	-	+	+
Vowel deletion	Reciprocal	-	-	+	+
Leftward spread of vowel height [ei]-[ii]	Applicative <i>-el-</i>	+	+	-	-
	Stative <i>-ek-</i>	+	-	-	-
	Causative <i>-esi-</i>	+	-	-	-
Rightward spread of vowel height [ei]-[ee]	Applicative <i>-el-</i>	-	-	+	+
Vowel coalescence [ai] → [ee]	Reciprocal	+	-	-	-
	CVCVC- [a]	+	+	-	-
	CV:C-/C(G)VC-	+	-	-	-
Insertion of ghost consonant [y]	Applicative <i>-el-/il-</i>	-	-	+	+
	CV-	-	-	+	+
Compensatory vowel lengthening	CVCV(N)-	-	-	+	+
	Reciprocal	-	-	+	+
Vowel assimilation [ui]-[uu]/[oi]-[oo]	CV-/CVCVC-	-	-	+	+
Gliding	CVCVC- [u]	+	+	-	-
CV metathesis	All	+	+	+	+
Distant assimilation	Causative	-	+	-	-

Table 6.3 has provided a summary of the phonological processes shaping imbrication across the four languages under study. The first phonological process is deletion. This phonological process is of three types, namely deletion of [l]; the consonant of the T/A deletion of [l]; the consonant of the applicative and deletion of a vowel. Deletion of the consonant of the T/A suffix occurs in all conditions across the four languages whereas deletion of the consonant of the applicative extension occurs in verbs with applicative extension in Nyiha and Malila. Lastly, vowel deletion occurs in verbs with reciprocal extension in Nyiha and Malila.

The second phonological process is vowel harmony which is of two types, namely leftward spread of vowel height and rightward spread of vowel height. The leftward spread of vowel height involves the spread of [i] as a way of breaking the [ei] into [ee]. This occurs in verbs with applicative *-el-* (M31 & M301), verbs with stative *-ek-* and causative *-esi-* (M31). The rightward spread involves the spread of [e] as a way of breaking the diphthong [ei] into [ee] in Nyiha and Malila. This phonological change occurs in verbs with applicative *-el-*.

The third phonological process is the vowel coalescence which occurs in Nyakyusa and Ndali. In Nyakyusa, vowel coalescence occurs in verbs with reciprocal *-an-*, verbs with CV:C-, C(G)VC-roots whose syllable nucleus is a low vowel and CVCVC-root with [a] as the nucleus of the penultimate syllable. In Ndali, vowel coalescence occurs only in verbs with CVCVC whose penultimate syllable is made up of a low vowel [a]. For comparison purposes, example (60) demonstrates the difference in phonological processes shaping the change to verbs with a reciprocal extension across the four languages.

(60).	M31	M301	M24	M23
Underlying form	<i>komanile</i>	<i>komanite</i>	<i>khomanile</i>	<i>homanile</i>
Stage 1: deletion of [l]	<i>komanie</i>	_____	<i>khomanie</i>	<i>homanie</i>
Stage 2: CV metathesis	<i>komaine</i>	_____	<i>khomaine</i>	<i>homaine</i>
Stage 3: Vowel coalescence	<i>komeene</i>	_____	_____	_____
Stage 4: Vowel deletion	_____	_____	<i>khomine</i>	<i>homine</i>
Stage 5: Vowel lengthening	_____	_____	<i>khomiine</i>	<i>homiine</i>

The illustration presented in (60) indicates that there are considerable variations in terms of the phonological processes shaping the change involving *-ile* suffix when attached to verbs with a reciprocal extension. While M301 defines the verb with a reciprocal extension as a regular, M31, M23 and M24 define the verbs as irregular. However, some of these phonological processes are shared and/or not shared by these three languages. For instance, two of the phonological processes, namely deletion of [l]; consonant of the tense/aspect suffix and CV metathesis are shared by the three languages. On the difference, while M31 undergoes vowel coalescence of

[ai] into [ee], M23 and M24 do not, rather, they undergo deletion of [a] preceding the [i], and compensatory vowel lengthening of the [i] as illustrated in stage 4 and 5 respectively.

Other phonological processes are; insertion of the ghost consonant (in verbs with applicative *-el-/il-*, CV-), compensatory vowel lengthening (verbs with reciprocal *-an-*), vowel assimilation (verbs with CVCVC-, CV) all these are common phonological processes in Nyiha and Malila. Others are gliding in CVCVC- with [a] as the nucleus of the last syllable (M31 & M301), distant assimilation (M301) and consonant-vowel metathesis the process common across all the four languages under study and it occurs in all conditions.

The last phonological change induced by *-ile* in its evolution is C-mutation. Out of the four selected languages, C-mutation is attested in Malila and Nyiha. In Malila, relatively a fewer consonants are affected by *-ile* suffixation than in Nyiha. While *-ile* induces C-mutation to regular verbs ending with [h], [g] and [ŋg] in Malila, in Nyiha the suffix induces C-mutation to verbs ending with [h], [g], [ŋg] [t], [d], [nd], [l], [p], [b], and [β]. Based on rules, this phonological change involves change in the manner of articulation that is affrication (M24), and spiratization (M23). It also involves change in place of articulation where the velar changes into palate-alveolar (velar palatalization) in Malila, whereas in Nyiha, C-mutation involves change in place of articulation from velar and glottal to alveolar, bilabial sounds to labio-dental sounds. Examples for this phonological change have been adequately provided in chapter four of this thesis. It is through this phonological change, Nyiha and Malila demonstrate significant differences despite having similar lexical items. This is to say, Nyiha and Malila have so similar lexical items that it may be difficult to regard the two as different languages. However, through this phonological change involving *-ile* suffix one can easily distinguish the two languages. Table 6.4 illustrates the extent to which Malila and Nyiha are different languages despite having similar lexical items.

Table 6.4: M24 versus M23 based on C-mutation

Word	Gloss	M23	M24
<i>mala</i>	finish	<i>mazile</i>	<i>malile</i>
<i>bhola</i>	decay	<i>bhozile</i>	<i>bholile</i>
<i>bhala</i>	go/head to	<i>bhazile</i>	<i>bhalile</i>
<i>lola</i>	see	<i>lozile</i>	<i>lolile</i>
<i>kala</i>	buy	<i>kazile</i>	<i>kalile</i>
<i>leeta</i>	bring	<i>leesite</i>	<i>leetile</i>
<i>puuta</i>	pray	<i>puusite</i>	<i>puutile</i>
<i>lita</i>	be tired	<i>lisite</i>	<i>litile</i>
<i>laata</i>	confess	<i>laasite</i>	<i>laatile</i>
<i>tenda</i>	do in a way	<i>tenzite</i>	<i>tendile</i>

Based on the examples presented in Table 6.4, Nyiha speakers identify themselves by producing the output form with a mutation. This is to say, when one says *malile* or *leetile* in Nyiha community, one will be regarded as not speaking Nyiha rather he/she speaks Malila.

The second and third objectives are interdependent as they sought to cover the morphological evolution of *-ile* suffix. This has been presented in chapter five. The findings presented in chapter five show that there is a close relationship between the change involving tense and aspect and morphological evolution of *-ile* suffix. In this chapter, the findings indicate that *-ile* suffix works in conjunction with morphemes in slot 2, slot 3 and slot 4, slot 6 and 7 (but slot 6 and 7 have direct and/or indirect influence the phonetic realization of *-ile* suffix). This implies that across the four languages, there is a change regarding how tense and aspect are encoded. This change in the encoding of tense and aspect has led to a change in the roles of *-ile* suffix.

Apart from its traditional role (aspect marking) since Proto-Bantu, the findings show that *-ile* suffix is both a tense and an aspect marker across the languages under study. To arrive at this conclusion, it was necessary for the chapter to first of all present how different tense and aspect categories are encoded across the four languages.

Then from these different categories of tense and aspect, the categories in which *-ile* suffix is a candidate were sorted. After that, the discussion was made on the concept of the morphological evolution of the suffix by comparing the role of *-ile* with the Pro-Bantu, on the one hand, and by observing the variations in the roles of *-ile* among the sister languages, on the other hand.

Therefore, *-ile* suffix marks three tense categories in Malila and Nyiha (remote past, yesterday past and today past), two tense categories in Ndali (yesterday past and today past) and one tense category in Nyakyusa. In marking these tense categories in these languages, the suffix co-occurs with high tone mounted either on the subject marker or negative marker for remote past. The suffix *-ile* co-occurs with *-a-* (slot 4) formative for yesterday past in all the languages and it occurs alone in marking today past in Ndali, Nyiha and Malila. The fact that *-ile* suffix marks different past tenses and the variation in number of tense categories in which *-ile* suffix is the candidate across the four languages provide evidence for the evolving nature of this suffix in the realm morphology.

In the realm of aspect marking, the findings show that *-ile* suffix marks different categories of aspect. For example, in Nyakyusa *-ile* form marks anterior, non-progressive aspect and indefinite conditional aspect. In Ndali, Nyiha and Malila the suffix marks only the non-progressive aspect. In marking these aspect categories, *-ile* suffix occurs alone. The fact that *-ile* suffix occurs alone (is independent) in aspect marking but co-occurs with pre-root formatives (is dependent) in marking different tense categories, renders the conclusion that aspect marking becomes the traditional role of *-ile* suffix as opposed to tense marking.

Apart from marking anterior, non-progressive aspect and indefinite conditional aspect, the findings show that the forms *-a-...-a*, and *-θ-...-ile* are also used in different situations such as salutation, making compliment and thanksgiving. In all of the four other situations, Nyakyusa uses the form with *-ile* while Ndali, Nyiha and Malila use the form without *-ile* suffix. In this view, the three languages that use the form without the suffix are more closely related compared to Nyakyusa which uses the form with *-ile* suffix.

So far, Table 6.5 provides a summary of the morphological changes involving *-ile* suffix across the four languages under study.

Table 6.5: Summary of the morphological changes involving *-ile* suffix

Item	Function/type	M31	M301	M24	M23
Roles of <i>-ile</i> (tenses)	Remote past	-	-	+	+
	Yesterday past (past tense)	+	+	+	+
	Today past		+	+	+
Roles of <i>-ile</i> (aspect)	Anterior	+	-	-	-
	non-progressive	+	-	-	-
	Indefinite conditional aspect	+	-	-	-
	Salutation	+	-	-	-
	Compliment	+	-	-	-

In Table 6.5, the (+) indicates that in this language, *-ile* suffix marks the specified tense/aspect category whereas (-) indicates that *-ile* does not mark the specified tense/aspect category. So far, the data presented Table 6.5 show that based on morphological properties of *-ile* suffix, Nyiha, Malila and Ndali are more closely related than their sister Nyakyusa because the three languages share a lot the morphological properties involving *-ile* suffix.

6.3 Conclusions

This study has described the phonological and morphological changes involving *-ile* suffix. The findings presented in this thesis support the view that *-ile* suffix is phonologically and morphologically evolving. The phonological evolution of the suffix is evident in several aspects. They include variations in the conditions and phonological processes shaping imbrication. Also, the fact that C-mutation is attested only in Nyiha (full spirantization) and Malila (limited spirantization) but not the other two sister languages provide evidence for the evolution of *-ile* suffix in the realm of phonology. Also, regarding the morphological change, the analysis in this

work shows that *-ile* suffix is both a tense and an aspect marker across the languages under study.

All in all, the findings in this thesis have indicated commonalities and variations in the morphophonological features involving *-ile* suffix. The shared morphophonological features across the four languages support the view that the four languages are genetically related. The striking similarities between the two languages (the case of Nyiha and Malila) indicate that the two languages are so closely related that one can regard them as dialects. However, variations among the languages indicate that *-ile* suffix is morphologically and phonologically evolving and to some extent, its evolution illuminates change in language genetic relationship to the extent that languages develop distinctiveness²⁴.

6.4 Recommendations for further research

Besha (1985) points out that no study can claim to have said the last word on any subject. In the same view, given the scope, time and data available of the study, several questions have not been covered yet they might merit further analysis. One of the questions involves the analysis of the phonological and morphological properties of *-ile* suffix beyond the four selected languages forming the Nyasa-Tanganyika corridor to account for the changes in genetic relationships among the languages. In other words, there is a need to examine the extent to which the morpho-phonological changes involving *-ile* suffix affect language genetic relationship among languages in the Nyasa-Tanganyika corridor.

²⁴ Campbell (1999) supports this conclusion by pointing out that dialects develop from the ancestor language (Proto-language) and through accumulated changes, the dialects become distinct languages (sister languages to one another, daughter of the Proto-language).

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APPENDICES

APPENDIX 1

Wordlist

S/N	Swahili	Nyakyusa	Ndali	Malila	Nyiha
1	amevimbiwa	afukilwe	aafukwa	avimbilwa/adolejewa	avimbilwaa
2	alivimbiwa	aafukilwe	aafukitwe	ávimbiliilwe	aavimbiliilwe
3	lima	lima	lima	lima	lima
4	alilima	aalimile	aalimite	aalimilemazubha	aalimile
5	amelima	alimile	aalima	aalima	aalima
6	atalima	aikulima	itialime	ahayilima indabhi,	alilima
7	leta	twala	leeta	lectaijembe	leeta
8	ameleta	atweele	aaleeta	aaleeta	aaleeta
9	alileta	aatweele	aaletite	aaleetilemazubha	aaleesite
10	ataleta	aikutwala	itialeete	atiletेशamandi/atileeteindabhi	alileeta
11	vaa	fwala	fwala	kwataamenda	zwala
12	amevaa	afweele	aafwala	aakwata	aazwala
13	alivaa	aafweele	aafwalite	aakwatileamenda /aakwata	aazwaaye
14	atavaa	aikufwala	itiakafwale	atikwateshamandi/atikwateindabhi	alizwala
15	panda	bhyala	bhyala	waala	waala
16	amepanda	abhyeele/abhyalile	aabhyala	aawaala	aawaala
17	alipanda	aabyeele/aabhyalile	aabhyalite	aawaalilemazubha	aawaaye
18	atapanda	aikubhyala	itakabhyale	atiwaaleshamandi/atiwaaleindabhi	aliwaala
19	vuna	funja, tondola	inula	vunzaamangagu	vunza
20	wamevuna	bhafunjile/bhatondwile	bhiinula	bhaavunzashinishsi	bhaavunza
21	walivuna	bhaafunjile	bhiinwile	bhaavunzile	bhaavunzile
22	watavuna	abhikufunja	itibhakiinule	bhativunzeshamandi	bhalivunza
23	vua	fuula	fuula	zuulaamenda	zuula
24	tumevua	tufuulile	twafuula	twazuulashinishiamenda	aazuula

S/N	Swahili	Nyakyusa	Ndali	Malila	Nyiha
25	tulivua	twafuulile	twafuulite	twazuulileamenda	twazuuye
26	tutavua	atukufuula	ititukafuule	tutizuuleamenda	tulizuula
27	pika	piija	piija	telekha	teleha
28	wamepika	bhapiijile	bhaapiija	bhaatelekha	bhaateleha
29	walipika	bhaapiijile	bhaapiijite	bhaateleshile	bhaatelesile
30	watapika	abhikupiija	itibhakapiije	bhatiteleshe	bhaliteleha
31	vaa	fwala	fwala	kwata	zwala
32	alivaa	aafweele	aafwalite	aakwatile	aazwaye
33	piga magoti	fugama	fughama	sundama	sundama
34	alipiga magoti	aafugeeme	aafugheeme	aasundiime	aasundiime
35	beba	pimba	pimba	pimba	bhusya
36	wamembeba	bhampimbile	bhaamupimba	bhaamupimba	bhaamubhusya
37	walibebwa	bhaapimbigwe	bhaapimbite	bhaabhapimbile	bhaabhabhuusiize
38	watatubeba	abhikutupimba	itibhatupimbe	bhatitupimbe	bhalitubhusya
39	kamata	kola	kola	lema	lemá
40	walinkamata	bhalinkolile	bhaamukolite	bhaamulemile	bhaamulemile
41	wamemukamata	bhankolile	bhaamukola	bhaamulema	bhaamulema
42	watamkamata	abhikunkola	itibhakamukole	bhatimuleme	bhalimulema
43	ongea	jobha	jugha	longa	yangá
44	ameongea	ajobhile	aajugha	aalonga	aayanga
45	aliongea	aajobhile	aajughite	aalonjile	aayanzile
46	wataongea	abhikujobha	itibhakajughe	bhatilonje	bhaliyanga
47	omba	suuma	suuma	labha	labhá
48	amemuomba	ansuumile	aamusuuma	aamulabha	aamulabha
49	aliwaomba	abhasuumile	abhasuumite	aabhalambile	aamulavile
50	atamuomba	aikunsuuma	itiakabhasuume	atimulabhe	alimulabha

S/N	Swahili	Nyakyusa	Ndali	Malila	Nyiha
51	ng'oa	nyukula	ipa	gunya	kwipa
52	ameng'oa	anyukwile	iipa	aaguunya	ayipashishi/ayifileizashi
53	aling'oa	aanyukwile	iipite	aaguunyile	aayifilemawila/
54	atang'oa	aikunyukula	itiakiipe	atiguunye	aliyipaindabhi/akwinzakwipabaadaye
55	fukua	syula	shuula	fukula	fukula
56	walifukua	bhaasyulile	bhaashuulite	bhaafukuuye	bhaafuuyemawila
57	wamefukua	bhasyulile	bhaashuula	bhaafukulashininshi	bhafuukuyeinzashi
58	valisha	fwalisya	fwasha	kwatizya	zwaalizya
59	wamemvalisha	bhamfwaliisye	bhaamufwasha	bhamukwatizya	bhaamuzwaalizya
60	walimvalisha	bhaalimfwaliisye	bhaamufwashishe	bhaamukwatiziizye	bhaamuzwaaliziizye
61	chinja	bhuuta/bhoola	goga	goga	bhoola
62	amechinja	abhuutile	aagoga	aagoga	aabhoola/abhooye
63	alichinja	aabhuutile	aagogite	aagojile	aabhooye
64	atachinja	aikubhuuta	itiakagoge	atigoje	alibhoola
65	twika	twika	twika	twikha	twiha
66	amemtwwika	antwikile	aamutwwika	aamutwikha	aamutwiha
67	atamtwwika	aikuntwwika	itiakamutwike	atimutwishe	alimutwiha
68	alimtwika	aalintwikile	aamutwikite	aamutwishile	aamutwisile
69	bembea	syuta	syutila	vwemba	vweluha
70	wamebembea	bhasyutile	bhaasyutila	bhaavwemba	bhaavweluha
71	walibembea	bhaasyutile	bhaasyutiile	bhaavwembile	bhaavwelusile
72	watabembea	aibhikusyuta	itibhakasyutile	bhativwembe	bhalivweluha
73	alifufuka	aasyukile	aashukite	aazyushile	aazyusile
74	amefufuka	asyukile	aashuuka	aazyuha	aazyuha

S/N	Swahili	Nyakyusa	Ndali	Malila	Nyiha
75	kata	tumula	kenda	tumula	diba
76	alikota	aatumwile	aakendite/akakenda (far past)	adumuuye	ádivile/aadivile
77	amekata	atumwile	aakenda	aadumula	aadiba
78	atakata	aikutumula	indiakende/indiakakende	atidumule	alidiba
79	kufa	kufwa	kufwa	fwa	fwa
80	alikuفا	aafwile	aafwile	aafuuye	áfuuye/aafuuye
81	amekufa	afwile	aafwa	aafwa	aafwa
82	atakufa	aikufwa	indiakafwe	atifwe	kweafwe
83	chimba	kumba	kukumba	bana	bana
84	walichimba	bhaakumbile	bhakakumba/bhaakumbite	bhaabanile	bhábanile
85	wamechimba	bhakumbile	bhaakumba	bhabanile	bhaabana
86	watachimba	abhikukumba	indibhakakumbe	bhatibane	kwebhabane/bhalibana
87	wanachimba	bhalipakukumba	bhakukumba	bhakubana	bhakubana
88	kuja	isaga	iisa/isagha	inza	yinza
89	alikuja	aalisile	akiisa/iisile	ayinzile	áyinzile/aayinzile
90	wamekuja	bhaisile (bhisile)	bhiisa	ainza	bhiinza
91	tumekuja	twisile	twisa	twinza	twinza
92	amekuja	isile	iisa	ayinzile	aayinza
93	anakuja	ikwisa	akwisa	akwinza	akwinza
94	atakuja	aikwisa	indiise	atiyinze	kweayinze
95	nyesha	tima	tima	toonya	toonya
96	imenyesha	jitimile	yaatima	yatoonya	yaatoonya
97	jana	jaatimile	yaatimite	yaatonyile	yaatoonyile
98	ilinyesha	jaatimile	yikatima (remote past)	yátoonyile	yátoonyile
99	itanyesha	ajikutima	indiyitime	ititoonye	kweyitoonye/yilitoonya
100	vuta	luusa	ghuusa	kwesa	kwesa
101	tumevuta	tuluusile	twaghuusa	twabhakweesa	twaakwesa

S/N	Swahili	Nyakyusa	Ndali	Malila	Nyiha
102	remote past	twaluusile	tukaghuusa	ákweesile	twákwesile
103	tulivuta	twaluusile	twaghuusite	twakweesile	twakwesile
104	tuliwavuta	twabhaluusile	tukabhaghuusa	twabhakweesile	twabhakwesile
105	tumewavuta	tubhaluusile	twabhaghuusa	twabhakweesa	twabhakwesa
106	tutamvuta	atukunduusa	inditumughuuse	tutibhakweese	kwetumkwese
107	walinivuta	bhalinduusile	bhaanguusite	bhaangwesile	bhaanvuusite
108	wamenivuta	bhandusile	bhaanguusa	bhaangwesa	bhanvuuta
109	sukuma	guta	sungila	bushila	bunshila
110	nimemsukuma	nungutile	naamusungila	naambunshila	namubunshila
111	nilimsukuma	naalingutile	naamusungiile	naambunshiiye	naambunsiye
112	nilimusukuma	naalingutile	ingamusungila	naambushiiye	námunshiiye
113	ilifanyika	jaabhombiike	yaabhombekite	yaabhombeshile	yaabhombesile
114	nitamsukuma	anguguta	indiimusungile	ndimbunshile	ndimubunshila
115	wametusukuma	bhatugutile	bhatungila	bhatubunshila	bhaatubunshila
116	wamemsukuma	bhangutile	bhamusungila	bhaambushila	bhaambunshila
117	winda	fwima	bhinga	bhinga	vwima
118	hawajawinda	bhakafwima	bhataabhinga	Bhatabhinjile ha	bhataavwima
119	wamewinda	bhafwimile	bhaabhinga	bhaabhinga	bhaavwima
120	waliwinda	bhaafwimile	bhakabhinga/bhbhingite	bhaabhinjile	bhaavwimile
121	waliwawinda	bhaabhafwimile	bhaabhabhingite	bhabhabhinjile	bhaabhavwimile
122	hatutawawinda	atutikubhafwima	tutatukabhabhinge	tetubhinje ha	tetubhavwime
123	rudi	gomoka	ghaluka	galukha	galuha
124	alirudi	aagomwike	aaghalukite	aagalushile	aagalusile
125	sema	jobha	yugha	longa	yangá
126	sijasema	ngajobha	indaayugha	ntalonga	ntaayangá

S/N	Swahili	Nyakyusa	Ndali	Malila	Nyiha
127	hawakusema	bhaakajobhile	bhataayughite	bhataalongile	bhataayanzile
128	hawajasema	bhakajobha	bhataayugha	bhataalonga	bhataayangá
129	wamesema	bhajobhile	bhaayugha	bhaalonga	bhaayanga
130	walisema	bhaajobhile	bhaayughite/bhakayugha	bhaalongile	bhaayanzile
132	ona	bhona	tesha/bhona	lola	lola/yeenya
133	aliwaona	abhabhweene	aabhabheni/akabhabhona	aabhalolile	abhalozile
134	hakuwaona	akabhabhweene	ataabhabhweni	Ataabhalolile ha	ataabhalozile
135	amewaona	abhabhweene	aabhabhona	aabhalola	abhaalola
136	hatutawaona	atutikubhabhona	tutaatukabhabhone	tetutibhalole	tetulibhalole
137	tutawaona	atukubhabhona	inditubhabhone/inditukabhabhone	tutibhalole	kwetubhalole
138	imba	imba	kwimba	yimba	yimba
139	tuliimba	twalimbile	twalimbite	twimbile	twínvile
140	hatukuimba	tukaalyimbile	tutaalyimbite	tutimble	tutínvile
141	pigana	komana	komana	khomana	homana
142	walipigana	bhaakomeene	bhaakomanite	bhaakhomiine	bhaahomiine
143	tutaimba	atukwimba	titwimbe/titukimbe	tukhayimba	kwetwimbe
144	hatutaimba	atutikwimba	tutaatukimbe	tetukhayimbe	tetuliyimba
145	cheka	seka	seka	seha	seha
146	wanacheka	bhalipakuseka	bhakuseka	bhakuseha	bhakuseha
147	walicheka	bhaasekile	bhaasekite	bhaaseshile	bhaasesile
148	wamecheka	bhasekile	bhaaseka	bhaaseha	bhaaseha
149	walimcheka	bhalinsekile	bhaamusekite	bhaamuseshile	bhaamsesile
150	wanamcheka	bhikunseka	bhakumuseka	bhakumseha	bhakumseha

S/N	Swahili	Nyakyusa	Ndali	Malila	Nyiha
151	nunua	ula	ula	kala	kalá
152	alinunua	aalyulile	uulite	aakalile	aakazile
153	amenunua	uulile	uula	akalile/aakla	aakala
154	amemununulia	amuliile	aamuulila	aamukaliye	aamukalila
155	wamenunuliana	bhuulileene	bhuulilana	bhaakalilana	bhaakalilana
156	walinunuliana	bhaalyulileene	bhuulilante	bhaakaliliine	bhaakaliliine
157	nyoonya	onga	onga	yonha	yonka
158	alikaa	aatugeele	iikalite	aatendiime	aatendiime
159	alikunywa	aanwile	aanwile	aamwelile	aabhunzite
160	chana	sanjula	pesula	sangula	sankula
161	alichana	aasanjwile	aapeswile	aasanguuye	asankuuye
162	aliomba	aasumile	aasuumite	aalabhile	aalivile
163	saali	ipuuta	ipuuta	puuta	puuta
164	alisaali	aliipuutile	iipuutite	aapuutile	aapuusite
165	wamesaali	bhiipuutile	bhiipuuta	bhaapuuta	bhaapuuta
166	hawajasaali	bhakiipuuta	bhatiipuuta	bhataapuuta	bhataapuuta
167	hawakusaali	bhaalipuutile	bhatiipuutite	bhataapuutile	bhataapuusite
168	samehe	hobhokela	hobhokela	tuuyila	samehe
169	waliwasamehe	bhaalinhobhokiile	bhaabhahobhokiile	bhaamutuuyiye	bhaabhasamesile
170	limia	limila	limila	limila	limila
171	alilimia	aalimiile	aalimiile	aalimiiye	aalimiiye
172	ua	goga	goga	goga	goga
173	waliwaua	bhaabhagogile	bhaabhagogite	bhaabhagojile	bhaabhagozile
174	amka	lembuka	lembuka	damukha	damuha
175	aliamka	aalembwike	aalembukite	aadamushile	aadamusile

S/N	Swahili	Nyakyusa	Ndali	Malila	Nyiha
176	gomba	lwa	lwa	lwa	lwa
177	waligombana	bhaalwile	bhaalwile	bhaaluuye	bhaaluuye
178	wamegombana	balwile	bhalwile/bhaalwa	bhaluuye/bhaalwa	bhaluuye/bhaalwa
179	hawajagombana	bhakalwa	bhataalwa	bhataaluuye	bhataalwa
180	watagombana	abhikulwa	itibhakalwe	bhatibhalwe	bhalilwa
181	kula	lya	kulya	kulya	kulya
182	alikula	aaliile	aaliile	aaliye	aaliye
183	amekula	aliile	aalya	aalya	aalya
184	atakula	aikulwa	itiakalye	atilye	alilya
185	hatakula	atisakulya	ataakalye	atatitlye ha	atalilya
186	hajala	akalya	ataalya	taliye	ataalya
187	fikiri	inogona	inong'ona	sibha, aasibhile	sibha
188	amefikiri	inogwine	iinong'ona	aasibha	aasibha
189	alifikiri	alinogwine	iinong'onite	aasibhile	aasivile
190	hakufikiri	akaalinogwine	atiinong'onite	ataasiibhile	ataasivile
191	ng'ata	luma	luma	luma	luma
192	ameng'atwa	alumiigwe	aalumighwa	aalumwa	aalumwa
193	aling'atwa	aalumiigwe	aalumiighwe	aalumiilwe	aalumiilwe
194	tembea	enda	enda/jaata	jenda	jenda
195	ametembea	endile	eenda	aajenda/ajendile	aajende
196	amewatembelea	abhendiile	aabhajaatila	aabhajendela	aabhajendela
197	aliwatembelea	aabhendiile	aabhajaatiile	aabhajendeeye	aabhajendeeye
198	sahau	ibhwa	ibhwa	ibhwa	luvwa
199	alisahau	aalibhiibhwe	iibhitwe	amibhiilwe	aaluviiilwe
200	aliumia	aafuleele	aafuleele		

APPENDIX 2

Sentence list

VERB FORMS (VIPASHIO VYA VITENZI)

1. He is cooking food for me (Ananipikia chakula)
 M23: *akunteleshela ishakulya*
 M24: *akunteleshela ishakulya*
 M301: *akumbiyila ichakulya*
 M31: *alipakumbijila ifyakulya*

2. Nilipika wali (I cooked rice)
 M23: *Natelesile uwali/umuchele*
 M24: *naateleshile uwali mazubha*
 M301: *naapiijite umpunga*
 M31: *naapiijile umpunga*

3. Sikupika wali (I did not cook rice)
 M23: *intatelesile ishakulya*
 M24: *intateleshile hala*
 M301: *ndapiyite umupunga*
 M31: *ngaapiijile umpunga*

4. Alipikia maji machafu (he cooked with contaminated water)
 M23: *aatelesheeye aminzi amabhibhi*
 M24: *aatelesheeye aminzi amachafu*
 M301: *aapiyiile amishi amachafu*
 M31: *aapiijile amiisi amafulumbanie*

5. Tulimpikia wali (we cooked rice for him)
 M23: *twamutelesheeye uwali*
 M24: *twamutelesheeye uwali*
 M301: *twampiyiile umupunga*
 M31: *twalimpijiile umpunga*

6. Walipikiwa wali (the were cooked rice)
 M23: *bhabhatelesheeye ishakulya**
 M24: *bhaabhatelesheeye ishakulya*
 M301: *bhabhapijiile umupunga*
 M31: *bhaabhapijiile umpunga*

7. Tulikata mti mkubwa (we cut a big tree)
 M23: *twadivile ikwi ipiti*
 M24: *twadibile ikwi ipiti*
 M301: *twakatite ikokwe ikulu*
 M31: *twatumwile umpiki unywamu*

8. Tulimkatia chungwa (we cut a piece of orange for him)
 M23: *twamkatiiye ichungwa*
 M24: *twamkatiiye ichungwa*
 M301: *twamukatiile uluki*
 M31: *twalinkatiile luuki*

9. Babu analima sasa (my grandfather is cultivating now)
 M23: *usokulu akulima salizi*
 M24: *umaama alikulima isalizi*
 M301: *usekulu alikulima*
 M31: *babu alipakulima*

10. Babu analimia jembe la mkono (my grandfather cultivates using a hand hoe)
 M23: *usokulu akulimila ijembe ilya kunyobhe*
 M24: *umaama akulimila ijembe ilya nyooobhe*
 M301: *usekulu akulimila ikasu ilya tukono*
 M31: *babu ikulimila ikumbulu ilya mabhoko*

11. Babu anamlimia bibi sasa (my grandfather is cultivating for my grandmother)
 M23: *usokulu akumulimila ubibi salizi*
 M24: *umaama akumulimila ubibi isalizi*
 M301: *usekulu akumulimila ubibi*
 M31: *babu alipakundilila bhibhi*

12. Babu analimia mahindi Mbozi (my grandfather cultivates maize in Mbozi)
 M23: *usokulu akulimila amangagu kumbozi*
 M24: *umaama akulimila amangagu kumbozi*
 M301: *usekulu akulimila ifilombe kumbozi*
 M31: *babu ikulimila ifilombe mu mbosi*

13. Anakatia kamba kisu (He is cutting the rope with a knife)
 M23: *akudumulila ulukusa ishisu*
 M24: *akukatila umufwo/ishipeni ulukusa*
 M301: *akukatila ingoye ichipeni*
 M31: *alipakukatila ummage ulugoje*

14. Analimia jembe (He is farming with the hoe)
 M23: *akulimila ijembe*
 M24: *akulimila ijembe*
 M301: *alikulimila ikasu*
 M31: *alipakulimila ikumbulu*

15. Anazungumzia nyumbani (He is talking while at home)
 M23: *akuyanjala pahaaya*
 M24: *akulonjela kuhaaya*
 M301: *akuyughila kukaya*
 M31: *ikujobhela pakaja*

16. Anamvalisha motto (He dresses up the child)
 - M23: *akumzwalizya umwana*
 - M24: *akumukwasya umwana ameenda (kukwata/kuvaa) amukwasiizye umwana ameenda*
 - M301: *akumfwasha umwana imienda*
 - M31: *alipakumfwalisya umwana*
17. Watoto walipigana (The children fought)
 - M23: *abhaana bhaakhomiine*
 - M24: *abhaana bhaaluuye/abhaana bhaahomiine kulinda mazubha (juzi)*
 - M301: *abhaana bhaakomanite*
 - M31: *abhaana bhaakomeene*
18. Watoto wanapigana sasa (children are beating each other now)
 - M23: *abhaana bhakuhomana salizi*
 - M24: *abhaana bhakulwa isalizi*
 - M301: *abhaana bhalipakukomana isala ishi*
 - M31: *abhaana bhalipakukomana ulu*
19. Messi na Ronaldo wanapigiana mpira (Mess and Ronaldo beat the ball for each other)
 - M23: *umessi nu lonado bhakupanilana umupila*
 - M24: *umeesi nu lonaldo bhakupanilana umupila*
 - M301: *umesi nu ronaldo wakupekelana umpila*
 - M31: *mess na ronaldo bhikukomelana umpila*
20. Msongole na musomba walinalimiana mahindi (Msongole and Musomba cultivated maize for each other)
 - M23: *umusongole nu musomba bhakulimilana amangagu*
 - M24: *ushuusa nu mwile bhakulimilana amangangu*
 - M301: *umusongole nu musomba wakulimilana ifilombe*
 - M31: *musongole na musomba bhikulimilana ifilombe*
21. Dada na rafiki yake wanapikiana wali kila jumamosi (my sister and her friend cook rice for each other every Saturday)
 - M23: *udada nu chaale wakwe bhakuteleshelana ishakyula kila pacheeluka*
 - M24: *uyilumbu nu rafiki wakwe bhakuteleshelanaga uwaali kila mupwayilo*
 - M301: *udada nu lafiki wake bhakupiyilana umupunga kila pampyaghilo*
 - M31: *kalumbu nu manyani gwake bikupijilana umpunga kukuti mpyagilo*
22. Eva anafanya kazi (Eve works)
 - M23: *ueva akubhomba imbombo*
 - M24: *ueva akubhomba imbombo*
 - M301: *ueva akubhomba imbombo*
 - M31: *eva ikubhomba imbombo*

23. Babu anawafanyisha wajukuu wake kazi nzito (the grandfather lets his grandchildren overwork)
 M23: *usekulu akubhabhombesya abhazukulu bhakwe imbombo impiti*
 M24: *umaama akubhabhombezya abhazukulu bhaakwe imbombo impiti*
 M301: *usekulu akubhabhombesha abhisukulu bhake imbombo ingafu*
 M31: *babu ikubhabhombesya abhisukulu bhaake imbombo ingafu*
24. Babu hawafanyishi wajukuu wake kazi nzito (the grandfather does not let his grandchildren overwork)
 M23: *usokulu atakubhabhombesya abhazukulu bhakwe imbombo impiti*
 M24: *umaama atakubhabhombezya abhazukulu bhaakwe imbombo impiti haala*
 M301: *usekulu atakubhabhombesha imbombo ingafu abhisukulu bhake.*
 M31: *babu atikubhabhombesya abhisukulu bhaake imbombo ingafu*
25. Watoto walifanyishwa kazi nzito (the children were overworked)
 M23: *abhaana bhabhombesiizwe imboimbo impiti*
 M24: *bhaabhabhombeziizye abhaana imbombo impiti*
 M301: *abhaana bhabhabhombeshishe imbombo ingafu*
 M31: *abhaana bhaabhombesiigwe imbombo ingafu*
26. Wanafunzi walimpigia magoti mwalimu wao (the children knelt down for their teacher)
 M23: *abhaana bhamusugamiliye umwalimu wabho*
 M24: *abhanafunzi bhamuhomeeye umwalimu amagoti*
 M301: *abhanafunzi bhaamukomiile amagoti umwalimu wabho*
 M31: *abhasukulu bhalinfugamiile ummanyisi gwabho*
27. Mwalimu aliwapiga watoto (the teacher beat the children)
 M23: *umwalimu amabhahomile abhaana*
 M24: *umwalimu aabhakhomile abhaana*
 M301: *umwalimu abhakomite abhaana*
 M31: *ummanyisi aabhakomile abhana*
28. Watoto walipigwa na mwalimu (the children were beaten by the teacher)
 M23: *abhaana bhahomiilwe nu mwalimu*
 M24: *abhaana bhaakhomiilwe*
 M301: *abhaana bhaahomiilwe nu mwalimu*
 M31: *abhaana bhaakomiigwe nu mmanyisi*
29. Mwalimu aliwapigisha magoti watoto (the teacher caused the children knel down)
 M23: *umwalimu abhahomesiize amagoti abhaana*
 M24: *umwalimu aabhahomeziizye amagoti abhaana*
 M301: *umwalimu aabhakomishishe amagoti abhaana*
 M31: *ummanyisi aabhafugamiisye abhaana*

30. Chakula kilipikwa vizuri (the food was cooked well)
 M23: *ishakulya shateleshiilwe ahinza*
 M24: *ishakulya shaateleshiilwe ahinza*
 M301: *ichakulya bhaachipiyite ubhwisa*
 M31: *ifyakulya fyapijiigwe kanunu*
31. Watoto walipikiwa chakula kizuri (the children were cooked of delicious food)
 M23: *abhaana bhatelesheliilwe ishakulya ishinza*
 M24: *abhaana bhaatelesheliilwe ishakulya ishinza*
 M301: *abhaana bhaapijilighwe ichakulya ubhwisa*
 M31: *abhaana bhaapijiligwe ifyakulya ifinunu*
32. Shamba lililimwa vizuri (the farm was well cultivated)
 M23: *Ishizi shalimilwe ahinza*
 M24: *ishizi shaalimilwe hinza*
 M301: *ichaalo chaalimiighwe ubhwisa*
 M31: *ikyalo kyalimiigwe kanunu*
33. Walimuomba mgonjwa (they prayed for the sick)
 M23: *bhamulabhiiye umubhinu*
 M24: *bhamupuutiye umubhine*
 M301: *bhaamwiputiile umubhine*
 M31: *bhaalimmwiputiile umbine*
34. Mgonjwa aliombewa (the sick was prayed for)
 M23: *umubhinu aalabhiliilwe*
 M24: *umubhinu aapuutililiilwe*
 M301: **bhaamwiputiile umubhine*
 M31: *umbine aaliputiligwe*
35. Aliomba samaki (he/she asked fish)
 M23: *amalavile inswi*
 M24: *aalabhile isamaki/inswi*
 M301: *aasumite iswi*
 M31: *aasumile iswi*
36. Hakuomba samaki (he did not ask fish)
 M23: *atalavile inswi*
 M24: *atalabhile isamaki hala*
 M301: *ataasumite iswi*
 M31: *akaasumile iswi*
37. Ameomba samaki (he has asked for fish)
 M23: *Alavile inswi*
 M24: *aalabha isamaki/inswi*
 M301: *aasuma iswi*
 M31: *asumile iswi*

38. Hajaomba samaki (he has not asked for fish)
 M23: *atalavile*
 M24: *atalabha isaki hala*
 M301: *ataasuma iswi*
 M31: *akasuma iswi*
39. Mtoto alipigwa na baba yake (The child was beaten by his father)
 M23: *umwana ahomilwe nu baba wakwe*
 M24: *umwana ahomiilwe nu yiise wakwe*
 M301: *umwana aakomiighwe nu bhabha ghwake*
 M31: *umwana aakomiigwe na bhabha gwake*
40. kanisa lilijengwa na Yohana (The church was built by John)
 M23: *ikanisa lyázenzilwa nu yohana*
 M24: *ikanisa lyaazenjiilwe nu yohaana*
 M301: *ichaaliki chaajengiighwe nuyohana*
 M31: *ikyaliki kyajengiigwe na johana*
41. Kiti kilivunjika (The chair was broken)
 M23: *Itengo lyapotesile*
 M24: *itengo lyabazushile (bazuha/bhazushile)*
 M301: *ichitengo chaakonyokite*
 M31: *ikikota kyakonywike*
42. Mlango ulifunguka (The door was open)
 M23: *Umulyango mwigule*
 M24: *umulyango waafungushile/ kufunguha)*
 M301: *ichifigo chiigukite*
 M31: *ikifigo kyaligwike*
43. Walitumiana ujumbe mzuri (they send for one another good news)
 M23: *bhatumiliine ihabari inyinza*
 M24: *bhaatumiliine ubhumbe uwinza*
 M301: *bhaatumilanite indumi inyiisa*
 M31: *bhatumileene indumi*
44. Babu alitumiwa ujumbe wa msiba (Grandfather was informed about the funeral)
 M23: *usokulu bhamuhooye infwa*
 M24: *umaama aatumililiilwe ubhujumbe ubhwimpungo*
 M301: *ubaba bhaamutumiile indumbe iya mbuungo*
 M31: *babu atumiliigwe indumi ija nfw*
45. Baba hakutumiwa ujumbe wa msiba (grandfather was not informed about the funeral)
 M23: *bhatamubhuuye*
 M24: *umaama atatumuliliilwe ubhujumbe ubhwimpungo hala*
 M301:
 M31: *bhabha akaatumiliigwe indumi*

46. Shamba linalimika vizuri (the field is well dug)
 M23: *ishizi shikulimiha ahinza*
 M24: *ishiizi shikulimiha ahinza*
 M301: *ishamba likulimika bhwisa*
 M31: *ikyalo kikulimika kanunu*
47. Shamba halilimiki vizuri (the field is not well dug)
 M23: *ishizi shitakulimiha ahinza*
 M24: *ishizi shatakulimiha ahinza hala*
 M301: *ishamba litakulimika bhwisa*
 M31: *ikyalo kitikulimika kanunu*
48. Shamba lililimika vizuri (the field was well dug)
 M23: *ishizi shalimisile ahinza*
 M24: *ishiizi shaalimishile hinza*
 M301: *ishamba lialimikite bhwisa*
 M31: *ikyalo kyalimiike kanunu*
49. Shamba litalimika vizuri (the field will be well dug)
 M23: *ishizi kwe shilimishe ahinza*
 M24: *ishizi shitilimishe hinza*
 M301:
 M31: *ikyalo akikulimika kanunu*
50. Shamba halitalimika vizuri (the field will not be well dug)
 M23: *ishizi te shilimishe ahinza*
 M24: *ishizi teshilimishe hinza haala*
 M301: *ishamba talilimike ubhwisa*
 M31: *ikyalo aakitikulimika kanunu*
51. Barua inasomeka vizuri (the letter is readable)
 M23: *ukalata akusomeha ahinza*
 M24: *ibalua yikusomeha ahinza*
 M301: *ibarua yikusomeka bhwisa*
 M31: *kalata ikusomeka kanunu*
52. Barua haisomeki vizuri (the letter is not readable)
 M23: *ukalata atakusomeha ahinza*
 M24: *ibalua yitakusomeha ahinza hala*
 M301: *ibarua yitakuomeka bhwisa*
 M31: *kalata atikusomeka kanunu*
53. Barua ilisomeka vizuri (the letter was readable)
 M23: *ukalata aasomesile ahinza*
 M24: *ibarua yaasomeshile hinza*
 M301: *ibarua yaasomekite ubhwisa*
 M31: *kalata jikaasomiike kannunu*

54. Barua haikusomeka vizuri (the letter was not readable)
 M23: *ukalata atasomilwe ahinza*
 M24: *ibalua yitaasomeshile hinza hala*
 M301: *ibarua yitasomekite ubhwisa*
 M31: *kalata jikaasomiike kanunu*
55. Bibi huvaa kitenge kila siku (grandmother wears kitenge everyday)
 M23: *ubibi akuzwala ishitenje shimashiima*
 M24: *ubibi akukwata ishitenje kila siku*
 M301: *ubibi akufwala ichitenge kila lishiku*
 M31: *bhibhi ikufwala ikitenge bhwila*
56. Bibi havai kitenge kila siku (grandmother does not wear kitenge every day)
 M23: *ubibi atakuzwala ishitenje shimashiima*
 M24: *ubibi atakukwata ishitenje kila siku hala*
 M301: *ubibi atakufwala ichitenge kila lishku*
 M31: *bhibhi atikufwala ikinge bhwila*
57. Bibi alivaa gauni jeusi (grandmother wore black dress)
 M23: *ubibi amazwaaye igauni ilyilu*
 M24: *ubibi a-akwatile igabhuni ilyilu*
 M301: *ubibi aafwalite ighabhuni ititu*
 M31: *bhibhi ikufwala igauni itiitu*
58. Bibi hakuva gauni jeusi (grandmother did not wear the black dress)
 M23: *ubibi atazwaaye igauni ilyilu*
 M24: *ubibi atakwatile igabhuni ilyilu hala*
 M301: *ubibi atafwalite ighabhuni ititu*
 M31: *bhibhi atikufwala igauni itiitu*
59. Hulima shamba kila siku (he digs the field every day)
 M23: *akulima ishizi shimashiima*
 M24: *akulima ishizi kila siku*
 M301: *akulima ishamba kila lishiku*
 M31: *ikulima ikyalo kyake kukuti isiku*
60. Halimi shamba kila siku (he does not dig the field every day)
 M23: *atakulima ishizi shimashiima*
 M24: *atakulima ishizi kila siku hala*
 M301: *atakulima ishamba kila lisiku*
 M31: *atikulima ikyalo kukuti isiku*
61. Alikuwa anakula nyama kila siku (he used to eat meat every day)
 M23: *ahalyanga inyama shimashiima*
 M24: *akhalyanga inyama kila siku*
 M301: *aalyanga inyama amashiku gooshi*
 M31: *aalyaga inyama amasiku goosa*

62. Alikuwa hali nyama kila siku (he did not eat meat every day)
 M23: *atahalyanga inyama shimashiima*
 M24: *atakhalyanga inyama kila siku hala*
 M301: *aalyanga inyama kila lishiku*
 M31: *aalyaga inyama kukuti isiku*
63. Alikuwa anavaa shati la njano alipokuwa shabiki wa yanga (he used to dress a yellow T-shirt when he was a fan of Young African)
 M23: *ahazwalaga ishati itolonvu pa amile mushabiki wa yanga*
 M24: *ahakwataka ishati imbogwa paamaali mushabiki uwitimu iya yanga*
 M301: *ataalyanga inyama kila lishiku*
 M31: *akaalyaga inyama kukuti isiku*
64. Alikuwa havai shati la njano alipokuwa shabiki wa samba (he did not use to dress a yellow T-shirt when he was a fan of Simba)
 M23: *atahazwalaga*
 M24: *atahakwata ishaati haala pamaali mushabiki uwitiimu iya simba*
 M301: *afwalagha ishati ilya njano*
 M31: *akafwalaga isyati injinja bho nsyabhiki gwa samba*
65. Walikuwa wanagombana kila siku (they used to fight every day)
 M23: *Bhahalwanga shimashiima*
 M24: *bhakhawanga kila siku*
 M301: *bhaalwanga kila lishiku*
 M31: *bhaalwaga kukuti isiku*
66. Zamani tulikuwa tunachuma magunia kumi ya kahawa/kokoa/pareto/uzezi (long ago we used to harvest ten bags of coffee/pyrethrum/finger millet/cocoa)
 M23: *hali tuhayebhelaga amagunia kumi aga kahawa*
 M24: *hali (imaandi)tukhayebhelaga amagunila kumi igipareto*
 M301: *ijolo twinulaka amagunila kumi aga bhulezi*
 M31: *ijolo twatumbulaga amalogota kalongo aga mikooko.*
67. Walikuwa hawagombani kila siku (they did not fight everyday)
 M23: *bhatahalwanga*
 M24: *bhatakhawanga kila siku hala*
 M301: *bhataalwanga kila lishiku*
 M31: *bhakaalwaga kukuti isiku*
68. Baba alisema nikifaulu atakuwa ananilipia ada (father said, if I pass he will be paying for my fees)
 M23: *Ubaba ayanzile atili nge nafaulu alindipilaga iada*
 M24: *ubaba atili ishinze nafauulu ahayindipila iada iya kunsukuulu*
 M301: *ubaba akati pala naakwela tiandipileghe iada*
 M31: *bhabha aatile linga ngwelile, aikuhombela isongo ija sukuulu.*

69. Alisema, tukinunua shamba tutakuwa tunalima mahindi (he said, when we buy the field, we will be cultivating maize)
 M23: *atili, ngetwakala ishizi tulilimaga amangagu*
 M24: *atiliishi inze twakala ishizi tukhayilimaga amangagu*
 M301: *akati palatwaghula ishamba titukalimaghe ifilombe*
 M31: *aatile, linga tuulile ungunda atukulimaga ifilombe*
70. Baba alilala (father was asleep)
 M23: *ubaba aakasite*
 M24: *ubaba aagonile*
 M301: *ababa aapitiile/aghonite/aagona*
 M31: *bhabha aalambaleele*
71. Amesikia (he has heard)
 M23: *ayivuuye*
 M24: *ayivuuye/ayiivwa*
 M301: *aapulika*
 M31: *apiliike*
72. Anampenda (s/he loves him/her)
 M23: *amusungwizye*
 M24: *amuganile/aamugana*
 M301: *aamugana*
 M31: *anganile*
73. Nitalima shamba kesho (I will dig the field tomorrow)
 M23: *ndilima ishizi indabhi*
 M24: *ihayilima ishizi indabhi*
 M301: *ingalime ichiishi ningelo*
 M31: *angulima ikyalo kilabho*
74. Nitalima shamba baadae (I will dig the field later)
 M23: *kwindime ishizi baadae*
 M24: *ntilima ishizi shamandi*
 M301: *tindime ichiishi pitaashi*
 M31: *angulima ikyalo pitasi*
75. Nililima shamba asubuhi (I dug the field in the morning)
 M23: *ndimile ishizi inzashi*
 M24: *indimile ishizi ishilabhila*
 M301: *ndimite ichiishi pangelo*
 M31: *ndimile ikyalo nulubhunju*
76. Tulilima shamba jana (I dug the field yesterday)
 M23: *twalimile ishamba mawila*
 M24: *twalimile ishizi mazubha*
 M301: *twalimite ichiishi mmajolo*
 M31: *twalimile ikyalo mmajolo*

77. Mtoto anaumwa (*the child is sick*)
 M23: *umwana abhinile*
 M24: *Umwana abhinile*
 M301: *umwana abhinite*
 M31: *umwana abhinile*
78. mtoto ameumwa ghafla njiani (*the child has suddenly got sick*)
 M23: *umwana aabhina*
 M24: *Umwana aabhina*
 M301: *umwana aabhina*
 M31: *umwana abhinile*
79. Baba amelala (*the father is asleep*)
 M23: *utata akasite*
 M24: *ubaba agonile /aagona*
 M301: *ubhabha agonite*
 M31: *tata/bhabha alambaleele*
80. Mungu anawapenda watu wake (*God loves his people*)
 M23: *umulungu abhasungwizye abhaantu bhakwe*
 M24: *umulungu abhaganile abhaantu bhakwe*
 M301: *uchaala abhaganite abhaandu bhaake*
 M31: *kyala abhaganile abhaandu bhake*
81. kijana wa kiume amempenda mtoto wa kike (*the boy loves the girl*)
 M23: *umulumendo amusungwiizye umwana uwa shilindu*
 M24: *Umwana umutunda amugana umwana uwa shilindu*
 M301: *umwana umulisha amuganite umwana umukolo*
 M31: *undumyana anganile undindwana*
82. yohana anajua kuendesha gali (*John can drive a car*)
 M23: *uyohana amanyile ukujenzya igaali*
 M24: *uyohani amanyile kupela igaali*
 M301: *uyohana ameenye ukwendesha igali*
 M31: *Johani ameenye ukwendesya igali*
83. Musa ameshika kiti (*Musa holds a chair*)
 M23: *uMusa alemile ishitengo*
 M24: *uMusa alemile itengo*
 M301: *uMusa akolite ichitengu*
 M31: *Musa akolile ikikota*

Salamu /salutation

Meeting for the first time

84. M23 *mwakaata*
 M24: *mwagona hii ni asubuhi au mnaonana kwa mala ya kwanza*
 M301: *mwagona*
 M31: *mugonile*

Mara ya pili inategemeana kama yupo kwenye shughuli gani mf. Kama anafanya kazi (when meeting for the second time, they mention the activity/situation they are involved in)

85. Wanafanya kazi (doing something)

M23: *mwabhomba*

M24: *wabhomba*

M301: *mwabhomba*

M31: *mubhombile*

86. Cultivating (digging a field)

M23: *mwalima*

M24: *Mwalima*

M301: *mwalima*

M31: *mulimile*

87. Wametoka kanisani (Coming from church)

M23: *mwapuuta*

M24: *mwapuuta*

M301: *mwapuuta*

M31: *mwipuutile*

88. Wanavuna (They are harvesting)

M23: *mwavunza*

M24: *mwayebhela*

M301: *mwinula*

M31: *mutondwile*

89. Wanapoamka asubuhi (Waking up in the morning)

M23: *mwadamuha*

M24: *mwagona weya wadamukha*

M301: *mwalembuka*

M31: *mulembwike*

90. Mumeshindaje (how are you)

M23: *mwalinda bhuli*

M24: *weya mwalinda*

M301: *mwangala*

M31: *mwangeele*

91. Wanapotoka kumuona mgonjwa (From seeing/visiting the sick)

M23: *mwamwenya*

M24: *mwavula*

M301: *mwabhakeeta*

M31: *mubhakeetile*

Toa shukrani/giving gratitude

92. Asante (thank you)

M23: *mwasalipa*

M24: *Mwasalipa mwe bheya* (asanteni) mtu amekupa chochote/ thank you

M301: *mwabhomba*

M31: *mubhombile*

93. Asante kwa chakula (thank you for the food)

M23: *mwateleha*

M24: *wateleka weeya*

M301: *mwapiija*

M31: *mupijile*

94. Asante kwa kulipa (thank you for paying money)

M23: *wasalipa she waapata*

M24: *mwatabhaala*

M301: *ghwakabha*

M31: *mukabhile*

Making compliment

95. Chakula kizuri (delicious food)

M23: *wateleha!*

M24: *weeya uteleshile! wateleha!*

M301: *ghwapiija!*

M31: *upijile!*

96. Mtu akijenga nyumba nzuri (when one has built a nice house)

M23: *wazenga!*

M24: *wazenga weeya!* (amejenga nyumba nzuri) au weeya uzenjile –
Weeya-ndugu yangu)

M301: *ghwajenga!*

M31: *ujengile!*

Indefinite conditional aspect (sentences)

97. ukifaulu shule nitakununulia kiatu kipya (if you pass the exam, I will buy you new shoes)

M23: *waafaulu umutihani indikukalila ishilyatu ishipwa*

M24: *uleshe inge wapaasa ikhayikukalila ishilyatu ishipwa*

M301: *nga ghwakwela isukulu itingakuulile ichilato ichipya*

M31: *linga ukwelile isukulu angukuulila ikilato ikipya*

98. ukipika chakula vizuri nitakula (if you cook nicely, I will eat)

M23: *inga waateleha ishakulya kwindye*

M24: *inge wateleha ishakyulya akhinza intilye*

M301: *nga ghwapiija ifiindu akiisa itindye*

M31: *linga upijiile kanunu angulyapo*

99. Ukilima shamba lote utapata magunia kumi na tatu (if you cultivate the whole field, you will get thirteen bags)
 M23: *inga waalima ishiizi shonti ishi kweupate amagunila kumi na tatu*
 M24: *inge waalima ishiizi shonti ishi uliyinza kupata amagunila ishumu nagatatu*
 M301: *nga ghwalima ichiisi chooshi itugaage amagunila kumi na tatu*
 M31: *linga ulimile ikyalo kyosa iki akugaaga amalogota kalongo na matatu.*
100. mukiomba vizuri Mungu atatupa uhai wa milele (if you pray well, you will get an eternal life)
 M23: *inga twalabha ahinza kwa Mulungu tulipata ubhupuuma ubhwa mileele*
 M24: *inge mwapuuta hinza umulungu alitupa ubhumi uwa wiila na wiila*
 M301: *inga mwipuuta kanunu uChaalatiatupe ubhumi ubhwa bhwila*
 M31: *linga mwipuutile kanunu kyala akutupa ubhumi ubhwa bhwila*
101. Alipomaliza kuongea watu wote walirudi nyumbani kwao (when he finished talking, all went home)
 M24: *wamala kuloonga abhantu inze bhagaluha kuhaya zyaabho*
 M23: *ye aamala kuyanga abhantu bhoonti bhaabhweleeye*
 M301: *bhwo aamala ukujuga abhaandu bhooshi bhaajile kutwaja twabho*
 M31: *bha amalile ukujobha abhandu bhoosa bhaabhukile kumwabho*
102. Watoto walipomaliza kula chakula walienda kulala (after the children have eaten, they went to bed)
 M23: *abhaana ye bhaamala kuulya bhaasogooye kukaata*
 M24: *abhaana we bhaamala ishakulya inze bhabhala kugona*
 M301: *abhaana bhwo bhaamala ukulya bhaajile kukugona*
 M31: *abhaana bho bhamalile ukulya bhaabhukile nkulambalala*
103. Walipovuna mahindi magunia kumi na tatu walifurahi sana (when they harvested thirteen bags of maize, they were very happy)
 M23: *ye bhaavunza amangagu amagunila kumi na tatu, bhaabhezile inkani*
 M24: *we bhaavunza amangagu amagunile kumi na tatu bhaashiiye sana*
 M301: *bho bhiinula ifilombe amahunila kumi na tatu bhaasekiile/bhaahobhokite ingaani*
 M31: *bho bhafunjile ifilombe amalogota kalongo na matatu bhaahobhwike fiijo*
104. Alipomaliza chuo alipata kazi (when he completed the college, he got a job)
 M23: *ye aamala ichuo aapasite imbombo*
 M24: *wa aamala ichuo apatiole imbombo*
 M301: *bhwo aamala isukulu, aajagite imbombo*
 M31: *bho amalile ikyuo aajagile imbombo*

105. Alipohubiri watu wengi waliokoka (when he preached, many were converted)
 M23: *ye aavumuzya izwi ilya Mulungu abhantu bhoonti wookosite*
 M24: *wa alumbilila abhantu abhinji bhaapindushile*
 M301: *bhwo aalumbilila abhandu bhooshi bhaapindikite*
 M31: *bho alumbiliile abhandu bhoosa bhaapindwike* Nyakati
106. Kimondo kiliangukia kijiji cha ndolezi (the asteroid fell in Ndolezi village)
 M23: *ishimondo sháguuye kushijiji isha ndolezi*
 M24: *Ishimondo sháguuye kushijiji isha ndolezi*
 M301: *ichimondo chikagwile kundolezi*
 M31: *ikimondo kyagwile kundolesi*
107. Chombo kilianguka jana (the vessel fell yesterday)
 M23: *Ishombo shaaguuye mawila*
 M24: *ishombo shaaguuye mazubha*
 M301: *ichombo chaagwile mmajolo*
 M31: *ikyombo kyagwile mmajolo*
108. Yesu alizaliwa katika mji wa betherehem (Jesus was borne in Jerusalem town)
 M23: *uYeesu ápafiilwe pashijiji isha bethlehem*
 M24: *uYeesu ápapiliilwe kushijiji isha ku bethlehemu*
 M301: *uYeesu aapaapighwe kuchisu icha bethlehemu*
 M31: *Jeesu aapaapigwe kukiisu ikya bethlehemu*
109. Chifu wa wanyiha alikufa akiwa na umri wa miaka sabini na tano (the Nyiha chief died when he was seventy five years old)
 M23: *umweene uwa bhanyiha áfuuye na maha sabini na tano*
 M24: *umweene uwa wamalila afuuye waali na maaha sabinatano*
 M301: *umalafyale ughwa bhaandali akafwa bhwo alinifyinja sabini na tano*
 M31: *malafyale ugwa bhanyiakyusa aafwile bho alinifyinja sabhini na tano*
110. Kanisa la kwanza huku kwetu lilijengwa na wajerumani (the first church here was built by the Germans)
 M23: *ipenga ilya kwanza lyázenjiilwe na bhajeleman*
 M24: *ikanisa ilya kwanza kukwitu uku lyazenjiilwe nabhajelumani*
 M301: *ichaaliki icha kwanda kukwitu kuno chaajengighwe nabhajeleman*
 M31: *ikyaliki ikya kwanda kumwitu kuno kyajengigwe nabhajelemamani*

111. Wazungu walituletea zao la kahawa/pareto (the whites brought for us coffee/pyrethrum)
 M23: abhazungu bhátuleteeeye izao ilya kahawa
 M24: abhazungu bhatuleteeeye ipaleto
 M301: abhasungu bhakatuletela ikahabhwa
 M31: abhasungu bhaatutwalile imikooko
112. Chifu yetu alioa wake kumi na mbili (the chief married twelve wives)
 M23: *umweene wiitu ámimaye abhantanda kumi na mbili*
 M24: *umwene wiitu áyejile abhashi kuna na mbili*
 M301: *umalafyale ghwitu akeega abhakolo kumi na mbili*
 M31: *malafyale gwitu aalyegile abhakikulu kalongo na bhabhili*
113. Babu yetu alifuga ng'ome ishirini na saba (our grandfather kept twenty seven cows)
 M23: *usokulu ásuville ing'ombe ishilini na saba*
 M24: *umaama uwitu asujile ing'ombe ishirini na saba (suga)*
 M301: *ubaabu gwitu akaswila ing'ombe ishilini na saba*
 M31: *umwisukulu gwitu aafugile ing'ombe amalongo mawili na ntandatu na jimo*
114. Jana tulikula mayai yaliyochemshwa (yesterday I ate boiled eggs)
 M23: *mawila twaliiye amaji amachemsye*
 M24: *mazubha twaliiye amajinza amateleshe*
 M301: *mmajolo twaliile amafumbi amapiije*
 M31: *mmajolo twaliile amafumbi amakyemusye*
115. Basi la mwasenga limeondoka sasa hivi (the Mwasenga bus has left just now)
 M23: *ibasi ilya mwasenga lyepa shinishi*
 M24: *ibasi ilya hailonje lyasogola isalizi*
 M301: *ibhasi ilya mwasenga lyanyatuka lululu*
 M31: *ibhasi ilya mwanjokolo lisokilepo lululu*
116. Basi la mwasenga limeondoka asubuhi sana (The Mwasenga bus has left early in the morning)
 M23: *ibasi ilya mwasenga lyefile inzashi*
 M24: *ibasi ilya hailonje lisogooye ishilabhila nhaani*
 M301: *ibhasi ilya kwatumbalinyatukite pangelo*
 M31: *ibhasi ilya mwanjokolo lisokilepo nulubhunju*
117. Leo saa kumi nitaenda kuuza kahawa yangu
 M23: *ileelo saa kumi ingubhal kuukazya ikahawa yaane*
 M24: *umusanyi uuno saa kumi ndibhale kukazya ipareto yaani*
 M301: *umusiugu saa kumi kuti inje kukuulisha ikahabhwa jaangu*
 M31: *umwisi ugu saa kumi ngubhuuka kukulisya imikooko gwangu*

118. Mwakani nitalima kahawa/pareto, mahindi na maharage (next year I will cultivate coffee/pyrethrum, maize and beans)
 M23: *umwaha we wukwinza ndilima ikahawa, amangagu ni mponzo*
 M24: *umwaha we wukwinza ihayilima ipareto*
 M301: *kuchinja kutingalime ukahabhwa, ifilombe namalima*
 M31: *nkyija angulima imikooko, ifilimbe ni ndima*
119. Muzungu alileta kahawa/pareto/ulezi/kokoa (The white brought coffee/pyrethrum/finger millet/cocoa)
 M23: *umuzungu áleesite ikahawa*
 M24: *umuzungu áleetile amawuwa kumwitu kumalila*
 M301: *umusungu aatwalite amaleshi kubhundali*
 M31: *unsungu aatweele imikooko*
120. Mwanzo Mungu aliumba nchi
 M23: *kulwandililo uMulungu ápelile insi*
 M24: *kuwandilo uMulungu ápelile insi*
 M301: *kubhwandilo umulungu akapelite ichisu*
 M31: *kubhwandilo Kyala aapelile ikisu*

APPENDIX 3

Narrative stories

Story 1: Nyakyusa

Narrator: Venance Swetala Mwakanusya

Theme: Cocoa market in Kyela

Nkyinja ikya tisini na nne ukubhuja kunyuma, tu-u-lisy-ag-a imikoko gytu ku kyeluku. Ifyinja ifyo twa-kubhilw-ag-a fiijo, papo ukubhifwa kwa mikoko mpaka gi-bhiik-e ubhujinja, gi-bhifw-e fiijo po umundu a-bhagiile u-ku-gi-tungula. Linga tu-tu-ngwiile, twa-kom-ag-a, twa-gi-lek-ag-a musenjele gya-tugal-ag-a amasiku mabhili ukuti gi-suuj-e amisi. Bho gi-suuj-ile amisi po twa-gifundik-ag-a undungu gumo, bho gi-fund-ile twa-gisuk-ag-a nu kw-anik-a palupapa ulu lu-soneliigwe pamwanya pakitalati. Gyuum-ag-a fiijo ulwa masyabhala amuumu. Bho gyum-ile twa-bhuk-aga ku kyeluku nkunaala. Bho tu-naal-ile imikoko gytu tu-ka-a-peligw-ag-a indalama isiku lililyo, twa-gulil-ag-a, lumo kundugu twa-peligw-ag-a indalama, lumo gwa-kindag-a umwesi goosa.

Nfyinja ifya tisini na tano ikyeluku ji-li-nkwend-a nu kufwa, po ga-li-nkwis-a amakapuni aga kuul-a imikoko. Ngukumbuka lya-li-is-ile ikampuni lya Mwamedu, Olam, Fida-Hussen Co na nkyeni li-li-nkwis-a ilya Baoland. Bho gi-is-ile amakampuni aga na gangi mingi aga kuula mikooko, lukaalipo ulwa kuguulila indalama kangi, linga umundu a-tuliike imikooko, a-a-peligw-ag-a papaapo indalama syake. Kangi amakampuni ago ga-ka-a-kong-esy-ag-a fiijo imbaatiko ngati bho isi bha-a-bhik-ile abha Kyeluku bho isya ukufundika akabhalilo akatali, ukusuka, ukwanika fiijo nukukendapo. Kukuti gwa-niike imikoko, abhaanjemuke bheegel-ag-a imikoko igyo papalumu. Nkyeni kunongwa ija ulutolano, bha-lyand-ile ukubhika ikikole nu kuulila mumungunda. Kakabhalilo kakaka aka makapumi, pa-a-fik-ile naapa bhanjemuke bhaabho bha-a-tungul-ag-a, bha-a-kom-ag-a nu kupima bhaabho imikooko, uswe twa-keet-ag-a nu kupeligwa indalama itolo. Po apo uju alinimikoko a-a-bhoniike ukuja nyafyale, paapo a-a-ly-ag-a bhutugala. Imbombo ja mwene mikooko kwali kwene ukukeeta ukuti a-kabh-ile amakopo malinga. Kangi lwa-lyand-ile ulusomo ulwa kuula imikooko imibhisi. Ubhwabhooke ubhu twali

nabho twe bhalima mikooko, ngupangilepo le akapango, ulinukwega indalama akabhalilo kookosa nabho gi-ka-bhifw-a imikooko.

Lelo nkabhalilo aka, utundu twa-ndwiike. Abhalima mikooko bhalimfihugutila ifinandinandi (AMCOS) ifi fyo fi-ku-gi-pim-a imikooko gya juujo muundu, nu ku-gi-bhungaania nu ku-gi-twaal-a kukyama ikya bhusilika iki tukuti KYECU. IKYECU joope ji-bhuj-isy-epo imbatiko simo isya ijolo isya Kyeluku (KYERUCU). Pa kipanga kyitu tuli ni kibhugutila, tu-sal-ile abhalongosi bhatatu, jumo gwa kikota nu nkalani gwake. Linga bha-tweele kuKYUCU po bhi-ku-gulila isiku ilya nnaalo. Po isiku ilya nnaalo po gi-kw-is-a amakampuni aga ijolo go bhi-ku-tolan-ag-a bhaabho muntengo. Po ikampuni ili li-ku-jobh-ag-a untengo unnunu, lyo ilyo li-ku-peligw-ag-a amakooko. Po linga iKYECU ji-naal-ile amakooko kwi kampuni ilya ntengo unnunu, po abhaandu bha-li-nu-ku-peeligw-a indalama syabho kundungu pamo kumilungu mibhili. Leelo abhalima mikooko bha-ka-lw-itik-a ulusumo ulwa kugulila indala kunongwa ja kuti bha-a-li-isibhiile ukwegela indalama paapo bho bhuliisye imikooko gyabho kumakampuni. Po abhanjemuke bhoope bha-kabh-ile ifyikafyika ija kwimapo, bhi-ku-kol-a indalama mmabhoko, bhi-ku-bhuuk-a ku bhalima mikooko, bhi-ku-bha-homb-el-a indalama paapo, po bhi-kw-ibhiik-a bhalima mikooko bhi-kuj-a mfibhukutila nu ku-kong-a imbatiko syosa isya KYECU.

English version

From 1994 backward, we used to sell our cocoa products to KYERUCU. In those years we suffered a lot. For us to pick our cocoa fruits they must turn yellow. When the cocoa fruits are very ripe then one can pick them. After picking we used to hit the fruits and put the cocoa nuts into a large basket made of bamboo for two days to filter some water from the cocoa nuts. After that we used to ferment the cocoa for a week. We used to wash the cocoa nuts and dry them on the bamboo mat plaited on the outdoor table. We used to dry the cocoa nuts just like we dry groundnuts. When the cocoa nuts are now dry, we used to sell them to KYERUCU. After we have sold our cocoa, we were not paid our money on the same day instead we used to wait for a week or sometimes a month.

Around 1995 KYERUCU collapsed and now there came private companies. I remember there were companies such as Mohamed Enterprise CO Ltd, OLAM,

FIDA HUSSEIN CO and later on BIOLAND. When these companies and many others came, there was no that tendency of waiting for money after selling our cocoa. The moment one sells his cocoa he was paid his money on the spot. Also, the companies did not exactly follow the KYERUCU procedures and regulations such as fermenting for so long, washing and drying for so long. Later on, because of competition, the companies used to pay in advance via brokers called '*njemunke*'. It reached a time when the *njemuke* started to pick process and dry the cocoa and our duty was only to oversee and be paid the money. At that time the farmers were seen as the lords. Also, there came a tendency of buying cocoa without drying them. The freedom that we had the cocoa farmers, let me tell you a story, you even ask for money while the cocoa fruits are not yet ripe.

But this time things have changed. The cocoa farmers are in small groups (AMCOS) which are the ones who collect cocoa of every member and take it to the cooperative union called KYECU. The KYECU also has restored some previous regulations introduced by KYERUCU. Here we have formed a group; we have chosen our leaders; the chairperson and secretary. After bringing the cocoa products to KYECU then they wait for the sells day. On the sales day there come previous companies to compete for bid. The company with a good price is the one that wins and be given the cocoa. After selling the cocoa to a company then the farmers may be paid in a week or within two weeks. However, the farmers are not satisfied with tendency of waiting their money for a week. In this regard, the *njemuke* have got a point to stand, the take money in hands, they go to farmers, they pay on the spot, then they pretend as they are farmers, they form small groups and follow all the procedures and regulations laid down by KYECU.

Story 2: Ndali**Narrator:** Mulungu**Theme:** Making fire in Ndali society

Umwoto....., umwoto, abhanyeenya bhiitu bha-ke-eg-ag-a akakokwe akapapati na kakokwe akabhulunge akasekele. Bha-ka-pekes-ag-a u-ku-gwag-a umwoto. Ndi bha-agw-ag-a umwoto bha-ka-pemb-ag-a ghwo ghu-ka-bh-ang-a ughwa ku-pijil-a, ukwota ni mbombo ishingira isha ku-pemb-a amasasi a-pa-kupeh-a amaleshi. Umwoto ghwo ku-ka-bhomb-a imbombo ijo. Bhwo bhwaach-a bha-kendelel-a u-ku-pat-a inyinong'ono imbya ukufuma kubhahesha bhiitu abhajelemanina na bhaingeleza, apo bha-k-isa bha-a-tu-twal-il-a ifibhiliti, ifibhiliti ifyo fikabha ifya cheela, bha-ka-bhik-ag-a akabwe akacheela, po ndi ghwa-bhilitul-a umwoto gu-ka-ak-ag-a. Po ichibhiliti chichwo chi-kabh-a na amafuta kukatenki kaake aka chibhiliti, i-ndi-gw-a-shungush-a igurudumu lyake li-ka-fumy-ang-a imbesese na mafuta ga-ka-ak-ag-a, agho ka-kabh-a maendeleo bho tu-kaali nu-ku-pat-a ubhuhulu, bho twa-pat-a ubhuhulu bho bha-ta-kabh-a ni ihela ija kuul-a ichibhiliti bha-li-nkwendelel-a nukupekes-a u-ku-ghwagh-a umwoto ugwa ku-bhomb-el-a imboimbo shooshi isha kukaja. Akabhalilo bho ka-a-kind-a twa-lek-a u-ku-bhomb-el-a ifibhiliti ifya cheela twa-nd-a nu-ku-bhomb-el-a ifibhiliti ifya tukokwe, ifyo fyo tu-ku-bhomb-el-a nu mwishi ugu.

English translation

Fire.....fire, our great grandparents used to take a flat wood and a sharp stick. They used to drill on the wood to get fire. When they get fire, they used it for cooking, getting warm and other activities such as burning the farm in which they cultivate finger millet. Those were the functions of the fire. Later on, they got new thinking from our guest (foreigners), the Germans and British. At that point the foreigners brought in matches and these were steal matches (fire starters) with a small tyre. To ignite you rotate the tyre. That stealmatch used kerosene that was put in its small tank. When you rotate its tyre used to ignite and the kerosene used to light fire. This was our development before our independence. After independence those who did not have money to buy matches, they continued drilling fire. Later on, we started using stick matches and these are still common matches up to now.

Story 3: Malila**Narrator: Mama Matani****Theme: Fire making in Malila**

Pe ndongaje

Eheee

ehee tu-kha-bhah-ag-a ikwi, inga na-a-bhah-a ikwi, pe tu-ku-tend-a tu-kut-i, pe tu-kut-i, pe inga tu-a-honzy-a (twahonzya) iipa, pe tu-ku-bhah-a aapa, pe tu-ku-pekes-a² umwoto, niine ná-pekes-ag-a, ngupekesa ngupekesa³ umwoto, kuula umwoto ghwasuuha kidogo, pe ngupekesa ³, pe ikwi liila likuleeta umwoto, pe tukubhiha insuusu² jilipo iyi tukuti insuusu kumwitu kumalila, isuusu³, pe inga naabhiha insuusu, pe ngupekesa² pe insuusu yiila yikwanda kusuuha, pe inga yasuuha insuusu yiila pe nkweywa, pe inga neefwa pe ngubhiha piisole, pe inga na-a-bhah-a piisole pe ngu-puut-a pe umwoto uula gu-kwand-a u-kw-akha we na-pekes-a mwikwi intenga, n-gu-pekes-a mwikwi intenga lyo tu-ku-pekesel-a umwoto, pe tu-ku-nyatul-a mwisole pe tu-kwand-a ku-pemb-a munyumba pe kukubha mwoto pe tu-ku-telesh-el-a.

Ndili á-kha-pekes-ag-a umuntu weeka, a-ku-pekes-a umuntu weeka, inga a-pekes-a wa-akh-a pe ukuti inza u-yokhol-e umwoto na-a-pekes-a, pe akwinz-a ku-yokhol-a umuntu wooka a-ku-pemb-a. We a-a-pemba umuntu wuula, pe woonti, pe inga inyumba zya-nd-ile kuula, bha-ku-nyatul-a bhoonti. bhoonti...bhoonti mpaka bha-mal-e. Basi pe bha-ku-nyatul-a bhoonti, umwoto gu-ta-ku-zim-a hala, pe paala we wa-pekes-a, pe tu-ku-teeny-a inkwi inyuumu ku-bhikh-a uluzinga. Pe inga wa-a-zim-a inyumba zyoonti, u-ta-ku-bh-a kwo-kol-a khabhili haala, pe kwand-a u-ku-pekes-a. Pe inga invula yuum-a pe abhamwene bha-kha-pekes-ag-a, bha-ku-pekes-a kilaala pe bha-ku-pekes-a pe bha-kwohol-a bha-ku-leet-a munyumba pe bha-kwand-a u-ku-sambazy-a ku bhantu bhonti.

English translation

Eehee, we used to put a piece of wood, after that we do like this.... (she drills), like this, we put here, then we drill... we drill the fire, I also used to drill, I drill...I drill....I drill the fire, when it emits a little I drill more and more. Then that wood brings out fire, then I put fine and well dried grasses (*insuusu*), there is what we call *insuusu* in our Malila land, after putting the grasses (*insuusu*), I keep on drilling more and more, then the *insuusu* emit more fire, after that I remove that very fine

grasses that emit fire and I put on the dry grasses, I blow, then that fire starts lighting after I have drilled in the special wood that we use to drill fire. Then we take the fire on grasses we bring in the house ready for cooking.

Those days only one person used to drill fire, after he has drilled (made) fire he calls up on his neighbours to come and fetch fire. Then the neighbours fetch fire, they light in their houses. The fire is not easily extinguished; we normally put a big wood (log). This method prevents you from asking for fire from neighbours frequently. During drought the chiefs used to make fire and distribute it to the entire society.

Story 4: Malila**Theme: Pyrethrum cultivation in Malila****Maatani:** *Uyandaje kulonga leelo*

Mama: *ndili tu-kha-lim-ag-a amawuwa, tu-ku-fushil-a tu-kwand-a we ga-vund-a umwezi wa wune pe tu-kwand-a ku-waal-a. kuti we na-abh-a ku-dogol-a amawuwa amanda maawe kwanza mbwaal-e kwishamba lyane. Inga na-waal-a nkwinz-a apa kumwezi wa kumi na moja, umwezi wa tisa,...kumwezi wa kumi na moja pe tu-kwand-a u-ku-yebhel-a. pe tu-ku-long-a tukuti naabha ku-yebhel-a amawuwa gaane na-panish-e. Iselekaali yi-n-deteeye itolobaaya ilya kwa-nishil-a amawuwa, bhati nihela zyope ziiz-ile, izya mawuwa pe tway-a tu-posheele kwigamba, Amawuwa tu-ku-pim-a kuchaama, pe twa-pim-a kuchaama bha-ku-tu-leet-el-a ihela, we ipaleto ye mbibhi bha-ta-ku-pooshel-a haala, bha-ku-sebh-a inchaafu inchaafu, pe inga twa-sebh-a inchaafu, pe tu-ku-tuung-a pakiilo. Pe inga twa-pat-a ikiilo kuumi, ikiilo thelathini pe tu-ku-pat-a ilaaki yiitu. Bhá-kha-lip-ag-a ikilo zine, zisano. Inga umo bha-a-punguzy-a bhakuti ikiilo zinne, zisaano.*

Invula izya mawuwa zi-kha-talikh-ag-a umwezi wa naane, uwa kumi na mbili zi-ku-toony-a. Amawuwa gaala tu-kha-waal-ag-a meene meene wuulo, tu-ku-waal-a geeka welele bila mbolea.

Long time ago, we used to cultivate flowers (pyrethrum), we raise seedlings in the garden, then in April we start planting. After we have planted in November, in September ...around November we start picking (harvesting). Then we say, I am going to pick my flowers I planted. The government has provided me with a tent for drying my pyrethrum. Also, the money is ready we are going to be paid. We sell the pyrethrum to the cooperative union; we sell and they pay us the money. They do not accept bad pyrethrum; they normally sort before weighing. When we get ten or thirty kilos then we get one hundred thousand shillings. They used to pay four or five shillings per kilogram. The first rains for pyrethrum started to rain in August, in December then it rains. Those flowers we used to plant without any fertilizer.

Story 5: Nyiha**Narrator:** Jibunge,**Theme:** Coffee cultivation in Nyiha society

Zamaani invula izya kahaawa zi-ha-toony-ag-a umwezi wa naane nu wa tisa. Lakini umwezi wa kumi, zi-ha-bhweel-ag-a izya kulimila. Bha-ha-pes-ag-a ubhulezi, pe bha-kwand-a u-ku-lim-a amangaagu. Imbeyu zye bha-ha-waal-ag-a, bha-ha-waal-ag-a imbeyu izya zamaani, yaani imbeyu izya aasili. Izya kisaasa zi-ta-liipo ha. We wa-a-waal-a amangagu igo, umwezi wa kwanza kwaga ga-baluuye. Umwezi wa bhubhili bha-ku-puul-a imponzo, umwezi wa bhutatu bha-kwand-a u-ku-lim-a akalimwa. Umwezi wa sita bha-kwand-a u-ku-vun-a amangagu, bha-ku-vun-a ubhulezi, na amazao goonti bha-ku-vun-a. Pe inga bha-a-vun-a aapo bha-ku-guul-il-a invula umwezi wa nane nu wa tisa invula izya kahawa. Ishipindi isha mwisinda kabisa ishi we ikahawa yi-kwinz-a, yi-ha-lim-w-ag-a nu muzungu tu, umwananchi uwa kawaida a-ma-anz-it-e u-ku-zalisya ikahawa ku asilimia inyinsi saana. Abhantu bha-ha-puul-ag-a mwituli, we umuzungu a-a-lol-a kuuti abhantu bhoope bhali nuwezo uwa ku-zaalisya, pe a-miinz-ile a-bha-leteeye amashiine kuti bheendelele u-ku-pat-a ubhunafuu uwa ku-sy-a, u-ku-sohol-a ikahaawa yiila.

Inga ukwanza ku-waal-a ishamba ilya kahawa, kwa-ndal-a imbeyu suuti. Ku-waal-a imbeyu kubustaani. Inga wa-a-waal-a kubusitaani, kwendelel-a kuyitilizya, mpaka pe yi-kwinz-a ku-mel-a. pe kuendelela kwandal-a ishamba, ku-dib-a amakwi, ku-hontany-a, ku-ga-pemb-a halafu kwendelel-a ukwip-a amasinko/kwilul-a amasinko. Inga wiilul-a amasinko kwand-a u-ku-ban-a ivilibha. Inga wa-a-ban-a ivilibha wa-a-mal-a, kugulila inga invula zyaweel-a kumwezi uwa kumi na moja. umwezi wa kumi na mbili, basi kwendelel-a ku-fushil-a ivilibha. Inga wafushila ivilibha wa-a-mal-a, kwinjil-a ku-waal-a. Inga wa-a-waal-a ikahawa yiila ku-zenjelel-a. Inga waazenjelel-a kwanda ukulimalim-a. Pe umwezi wa bhutatu kutifulilatifulil-a. Pe kwinza u-ku-lim-a uwa mwisho umwezi uwa bhusaano. Pe kuzenjelel-a nu ku-pand-il-a amandi. Basi ishaamba iipo we wa-a-li-mal-a. Pe bho iatua iya ku-ban-a we wa-yi-mal-a iipo. Pe ku-gulil-a invula izyamwabho. Amavuno pe ku-gulil-a mpaka amaha gatatu. Basi iipo pe ishamba kwendelela u-ku-vun-a kama kawaida. Amaha ga mwisinda, kwandil-a amakwi 500 tu-ha-apat-ag-a amagunila kumi mpaka sita. Ukuyebhela tu-ha-yebhel-ag-a kunyoobhe. Amaha gaala abhantu bha-ta-li-ni-hel-a

ha, ihela zi-ha-tam-w-ag-a, pe umuntu abhoolaga ing'ombe akubhiita abhantu a-ku-bhap-a inyama, inga we a-ye-bhel-a idebe a-ku-mu-p-a ahanyama bha-ha-ka-dili-ag-a kunyoobhe yaani inyama yiila. Inga twa-yebhel-a ikahawa tu-ha-vundishil-ag-a mumagunia, inga twavundishil-a insiku zilinga pe tu-ha-twal-ag-a kuijenje na kuanda ku-yo-zy-a na ku-kwanishil-a. Tu-ha-kazy-ag-a ikahawa kuvwama vwa ushilik, li-ta-lipo isoko ilya mwabho.

English translation

Long time ago, the first rains for coffee cultivation used to rain around August and September. But around October it used to rain for other crops. People used to cultivate finger millet, beans, groundnuts and maize. Those days they used to cultivate traditional seeds; the modern ones were not yet. There in January the maize starts to give flowers. In June people start to harvest maize, finger millet and all other crops. After they have harvested, then they wait for the August and September rains that are for coffee. In the very previous days, when coffee was introduced, it was cultivated by the white only. The normal indignant started to produce coffee in a very low percentage. They used local tools (mortal) to process their coffee. When the white has seen that people can produce coffee, he brought with them machines so that people may process their coffee easily.

The coffee farm, you first prepare seedlings, you plant in the garden. After you have planted in the garden, you continue to water until the seedlings grow. Mean while you prepare a farm, you cut trees, you cut into pieces, you burn and you continue uprooting the remaining tree logs. After that you dig holes, you wait for rains around November, in December then you continue to fill the holes with some soil, after that then you plant. After you have planted that coffee you build a small fence around each coffee plant, after that you go on digging for plants, in March you also go on digging. Finally, you do the same in May. Then you again fence the plants. Now at that point you have finished the whole procedures used in cultivating coffee. Then you wait for the next rains. You harvest that coffee after three years. In those past years for 500 coffee trees we used to harvest between 10 and 6 bags. We used to pick coffee with hands. In those years people had no money, a person used to slaughter a cow and ask people to help him pick coffee and he could give some beef

in return. When one has picked one bucket of coffee the coffee owner used to give him a small piece of meat. After we have fermented the coffee nuts for some days, we used to bring to the downhill to wash and dry them. We used to sell our coffee to the trade unions but not otherwise.

APPENDIX 4

Sample of Research Permit letters

UNIVERSITY OF DAR ES SALAAM
OFFICE OF THE VICE CHANCELLOR
P.O. BOX 35091 ♦ DAR ES SALAAM ♦ TANZANIA

General: +255 22 2410500-8 ext. 2001
 Direct: +255 22 2410700
 Telefax: +255 22 2410078



Telegraphic Address: UNIVERSITY OF DAR ES SALAAM
 E-mail: vc@admin.udsm.ac.tz
 Website address: www.udsm.ac.tz

Ref. No: AB3/12(B)

Date: 17th January 2019

Regional Administrative Secretary
Songwe Region

RE: REQUEST FOR RESEARCH CLEARANCE

The purpose of this letter is to introduce to you **Mr. Nichodamus Robinson** who is a bonafide PhD student of the University of Dar es Salaam and who is at the moment required to conduct research. Our students undertake research activities as part of their study programmes.

In accordance with government circular letter Ref. No. MPEC/R/10/1 dated 4th July 1980, the Vice-Chancellor of the University of Dar es Salaam is empowered to issue research clearances to staff members and students of the University of Dar es Salaam on behalf of the government and the Tanzania Commission for Science and Technology (COSTECH). I am pleased to inform you that I have granted a research clearance to **Mr. Robinson**.


I therefore, kindly request you to grant him any help that may enable him achieve his research objectives. Specifically we request your permission for him to meet and talk to the leaders and other relevant stakeholders in your region in connection with his research.

The title of his research is '**Historical Evolution of - Ile Suffix Across Bantu Languages: The Case of Nyasa – Tanganyika Corridor**'.

The period of his research is from **February to May 2019** and the research will cover **Songwe Region**.

Should there be any restrictions, you are kindly requested to advise us accordingly. In case you require further information, please do not hesitate to contact us through the Directorate of Research and Publication, Tel. +255 22 2410500-8 Ext. 2084 or +255 22 2410727 and E-mail: research@udsm.ac.tz.

Yours sincerely,


 VICE CHANCELLOR
 UNIVERSITY OF DAR-ES-SALAAM
 P.O. BOX 35091
 DAR-ES-SALAAM
 Prof. William A. L. Anangisye
 VICE CHANCELLOR

QUOTATION OF REF. NO. IS ESSENTIAL

**UNITED REPUBLIC OF TANZANIA
PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT
SONGWE REGIONAL**

Phone No. 025 – 2580305
Fax No: 0252580306
Email: ras.songwe@tamisemi.go.tz



SONGWE REGIONAL OFFICE,
P. O. BOX 23,
SONGWE.

REF NO: EA.244/268/01/34

5/03/2019

District Administrative Secretary
ILEJE, MBOZI, SONGWE AND MOMBA,

RE: RESEARCH PERMIT.

Please refer to the above captioned subject,
We have receive the letter from University of Dar Es Salaam with reference number AB3/12(B) dated 17th January,2019.

The permit has been granted to Mr. Nichodamus Robinson who is a bonafide PhD student of the University of Dar Es Salaam, who by the moment requires to conduct research.

The research title is '**Historical Evolution of -Ile Suffix Across Bantu Languages: The case of Nyasa – Tanganyika Corridor**'

The period of research is from February to May,2019 in Songwe Region.

Please provide him the assistance required so as to accomplish his research.

Yours.

Lazaro Mwankenja.

**For; REGIONAL ADMINISTRATIVE SECRETARY
SONGWE**

Copy: – Mr. Nichodamus Robinson
– Vice Chancellor
University of Dar Es Salaam.

**UNITED REPUBLIC OF TANZANIA
PRESIDENT'S OFFICE –
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT**

PHONE No. mdomo "Utawala"
Simu 025 – 252580034



Mbozi District Office
P. O. Box 45
MBOZI

REF. NO. AB. 360/254/02/57

29/03/2018

District Executive Director,
P.O. BOX 03,
MBOZI

RE: RESEARCH PERMIT

Please refer to the heading above .

I have received a letter from the Regional Administrative Secretary with reference Na. EA.244/268/01/34 O of 5 March, 2019

The permit has been granted to Mr. Nichodamus Robinson who is a bonafide PhD student of the University of Dar es salaam, who by the moment requires to conduct research.

The Reseacher title is " Historical Evolution of Ile Suffix Across Bantu Languages: The case of Nyasa Tanganyika Corridor "

The period of research is from February to May 2019 in Mbozi District.

Please provide him to assistance required so as to accomplish his research .

Yours.

Tusubilege Benjamin
DISTRICT ADMINISTRATIVE SECRETARY
MBOZI

DISTRICT ADMINISTRATIVE SECRETARY
MBOZI

Copy: - Mr. Nichodamus Robinson ✓
- Vice Chancellor,
University of Dar Es Salaam.

HALMASHAURI YA WILAYA MBOZI

(Barua zote ziandikwe kwa Mkurugenzi Mtendaji)

Simu : Na. 025 - 2580272
Nukushi: 025 - 2580044
Barua pepe: ded@mbozidc.go.tz
Tafadhali unapojibu taja



S.L.P 3,
MBOZI.

Kumb. Na. R. 50/MDC/2/145

07 Machi, 2019

Mtendaji wa Kata,
Kata ya Magamba, Itaka na Mlowo,
H/Wilaya ya Mbozi.

**YAH: KUMTAMBULISHA NDG. NICHODAMUS RUBINSON
KUJA KUFANYA UTAFITI.**

Husika na kichwa cha barua tajwa hapo.

Ofisi imepokea barua kutoka kwa Katibu Tawala Wilaya yenye Kumb.
Na. AB.360/254/02/57 ya tarehe 29/03/2018, ikimuomba kibali cha
kufanya utafiti mwanachuo kutoka Chuo Kikuu cha Dar es Salaam.

Kwa barua hii namtambulisha kwako ili aweze kufanya utafiti juu ya
"Historical Evolution of Ile Suffix across Bantu Languages: The case of
Nyasa Tanganyika Corridor" kuanzia mwezi Februari hadi Mei, 2019.

Naamini utampa ushirikiano wa kutosha ili aweze kufanikisha utafiti
huo.

Nakutakia kazi njema.

Deonisia Kafuka

**Kny: MKURUGENZI MTENDAJI (W),
MBOZI**

Nakala: Mkuu wa Chuo,
Chuo Kikuu Dar es Salaam.

Nichodamus Robinson,
MWANACHUO.

**Kny. MKURUGENZI MTENDAJI (W)
MBOZI**

APPENDIX 5: SOME PHOTOS TAKEN DURING DATA COLLECTION

Photo 1: The researcher with informants at SIL office at Ilembo (Mbeya Rural Council)



Photo 2: The researcher in the pyrethrum field of one of the respondent (Malila)



Photo 3: The informant in the pyrethrum field (Malila)