

REDUPLICATION IN KIMERU: A CASE STUDY OF KIMERU PARTS OF SPEECH

BY

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DECLARATION

This research project is my original work and to the best of my knowledge, has not been presented for a degree in any other institution of higher learning.

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This project has been submitted for examination with our approval as University supervisors.

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DEDICATION

To

My lovely husband, Moses

For your Love,

Understanding,

Inspiration

And the fact that you were ever present

During this period and always.

To my sisters

Thank you for believing in me,

For encouraging me always,

And for your moral and financial support

To my mum and dad

You spent your time praying for me,

Guided me even in my weakest moments,

You gave me your time and unending love

You gave me your whole

I love you.

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ABBREVIATIONS AND SYMBOLS

MDT	Morphological Doubling Theory
Sing	Singular
Pl	Plural
N	Noun
V	Verb
Adj	Adjective
Adv	Adverb
Red	Reduplicant
Stc	Sentence
//	Phonemic representation
[]	morphemic representation
=	same as
IPA	International Phonetic Alphabet
F	Semantic value of a word

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ABSTRACT

This study focuses on reduplication in Kimeru. Reduplication is rather a naturally occurring aspect of Kimeru language and therefore calls for thorough analysis and understanding of the reduplicated words in the language. The study uses common Kimeru words particularly in the open categories of speech. These words were taken from the Imenti dialect of Kimeru language. The study aims were to identify reduplication in Kimeru; to investigate full and partial reduplication in Kimeru; to look at reduplication in all open categories of speech in Kimeru and examine how they occur; to account for reduplication in Kimeru using the Morphological Doubling Theory (MDT). The MDT claims that reduplication calls twice for a given constituent or subconstituent in a given semantic description with possible phonological modification. The research was based on the sampled native speaker's knowledge of the structure of Kimeru words as well as other aspects of reduplication. Purposive sampling was used to select a sample of ten informants, who were carefully selected from the Imenti speaking areas. The selected informants were then used to assist in the generation of the data to be used in this study through a questionnaire. The researcher then counterchecked the data given to ensure its correctness. The rest of the data was collected through information from primary sources including Kimeru books, Kimeru dictionary and other helpful Kimeru materials. The data collected were classified into different categories and analysed morphologically. We gave the basic information on Ki-imenti phonology and morphology. This important detail set the stage for the ensuing discussions and also enabled the researcher to establish the linguistic elements affected by reduplication. We further gave a comprehensive description of Kimeru parts of speech that include nouns, verbs, pronouns, adverbs, adjectives, prepositions and conjunctions. These parts of speech discussed acted as the introduction to reduplication in the open categories of speech that was the basis of our discussion. Our findings indicate that reduplication occurs in the open classes that include nouns, verbs, adjectives and adverbs. The study also found out that both total and partial reduplication are used in the reduplication of Kimeru words. Further the study found out that

pseudo-reduplication is an independent concept in Kimeru and not an aspect of reduplication. The study concluded that reduplication affects the semantic value of words in Kimeru.

1.0 CHAPTER ONE: INTRODUCTION

1.1 BACKGROUND TO THE LANGUAGE

This study was based on the Kimeru language of the Bantu language group. Kimeru is spoken by the Ameru people, who mostly occupy Meru and Isiolo Counties.

According to Muriungi (2015) Kimeru language is not homogeneous, it has various variations in dialects and there is a discrepancy between what the native speakers recognize as main Kimeru dialects and what the scholars state to be the dialects of Kimeru language (Gacunku 2005). A study done by Taitumu (2014) stated that Kimeru has a variety of dialects, but added that scholars have differed on the exact number of dialects. Bennett (1981) lists 6 dialects: Gi-chuka, Ki-igoji, Ki-mwimbi, Ki-imenti, Gi-tigania and Ki-tharaka, while Marete (1981) identifies 5 dialects of Kimeru which he regards as regional varieties. These are Kitharaka, Gitigania, Gichuka, Ki-mwimbi and Ki-imenti. Mberia (1981), on the other hand, picks out Ki-tharaka and convincingly argues for its identity as a distinct language separate from Kimeru. However, according to the more recent studies, for example, Gacunku (2005), identifies up to 8 dialects that can be distinguished in Kimeru. These are: Ki-igembe, Gitigania, Gi-chuka, Ki-muthambi, Ki-mwimbi, Ki-igoji, Ki-imenti and Ki-miitine. Kimeru bears close resemblance to Gikuyu, Kiambu and Kikamba. The Imenti dialect appears to be the dominant dialect in Kimeru. (Taitumu: 2014)

This study focused on the Ki-imenti dialect spoken in parts of North Imenti, South Imenti and Central Imenti constituencies.

1.2 STATEMENT OF THE PROBLEM

Reduplication is a morphological process in which the root or the stem of a word (or part of it) or even the whole word is repeated exactly or with a slight alteration. Stageberg (1981:127) states that a new word is formed by doubling a morpheme, while Spencer & Zwicky (2001:130) claim that reduplication is a morphological phenomenon in which the base, root, stem of a lexeme or a part of it is repeated completely or with a slight alteration. The word 'base' is an alternative to root or stem that indicates the indivisible units attached to different affixes (Katamba, 1993: 45). Reduplication can be total (involving the whole word) or partial (involving just a segment of a

word) depending on the language and the word being reduplicated. Kimeru portrays both these characteristics.

Several studies have been done on the Kimeru language. Just to mention some, Maore (2013) did his study on the phonological basis of misspellings in written English of Kimeru speaking pupils in public Primary schools. Gacunku (2005) looked at Phonological investigation of irregularity and variation in the Kimeru concordial system.

Several scholars have studied reduplication in different languages although none has been done on Kimeru. Nadarajan (2006), in his study on Reduplication in English stated that, “The role of reduplication in English language has been largely ignored.” His work looks at the traditional forms of reduplication and the current views on how they occur. He later discussed reduplication as found in Tamil and Malay Languages and compared them to English. Wang (2005), as quoted by Nadarajan stated that there is a general tendency among linguists to overlook functions of reduplication. Their work set stage in this study for discussing reduplication and functions of reduplication in Kimeru. While discussing reduplication in Kihehe, Silverman (1993) stated that reduplication is both a morphological and phonological process.

On the other hand, Novotna (2000) studied Reduplication in Swahili, this study was based on the formal properties of reduplication in Swahili, the study investigated the phenomenon Reduplicant (Red) (kidogokidogo) which was in question from the functional perspective. Further, Novotna discussed pseudo-reduplication as an additional phenomenon pertinent to reduplication in Swahili stating that there are a great number of words which consist of reduplicated syllables (one or more than one of them). However, as implied by the word (pseudo reduplication) there is no reduplication present in these cases, i.e. the lexical items represent a single morpheme and therefore neither the expression containing half an element nor the underlying form exists.

Following the studies that have been done on reduplication, it would be a mistake to draw a conclusion using their results on reduplication in Kimeru. Therefore, it was necessary to study reduplication and aspects of reduplication in Kimeru. To the best of researcher’s knowledge, reduplication has not been given a lot of attention in Kimeru. According to Abdulaziz (2002), Reduplication is a common phenomenon in Bantu languages. Bantu languages here including

Kimeru which is the subject of concern in this study and which also allows reduplication of some words.

Fr. Giorgis (1964), in his tentative Kimeru Dictionary identified seven parts of speech that are used in Kimeru: nouns, verbs, pronouns, adjectives, adverbs, prepositions and conjunctions. These parts of speech fall in both open and closed categories some of which are reduplicated. Reduplication at these word-categories may differ from one category to another.

This research was based on the open categories of speech in Kimeru, it sought to clarify reduplication in the four open grammatical categories of speech in Kimeru. These are Nouns, adjectives, verbs and adverbs. Further the research investigated pseudoreduplication in Kimeru and finally focused on the functions of reduplication in Kimeru. All these were based within the framework of Morphological Doubling Theory as was proposed by Inkelas and Zoll (2005).

1.3 RESEARCH QUESTIONS

Since reduplication has been a subject of concern to many linguists studying different languages, it is necessary to study reduplication in Kimeru. This study attempted to answer the following research questions:

1. How is reduplication exhibited in open grammatical categories in Kimeru?
2. What are the functions of reduplication in Kimeru?
3. Is pseudoreduplication an aspect of reduplication in Kimeru?
4. Is reduplication a morphological process in Kimeru supported by MDT?

1.4 OBJECTIVES

This research project was guided by the following research objectives:

1. To investigate reduplication in open grammatical categories in Kimeru.
2. To determine the functions of reduplicated words in Kimeru.
3. To establish pseudoreduplication as an independent aspect in Kimeru language.
4. To examine reduplication as a morphological process in Kimeru within the MDT.

1.5 JUSTIFICATION OF THE STUDY

This study enhances a scholarly understanding of reduplication in Kimeru. It based its research on total and partial reduplication as well as prefixal and suffixal reduplication. The study further looked at reduplication in open grammatical categories of speech and later on focused on the functions of reduplication in Kimeru.

This study will also assist future researchers in undertaking a study on reduplication in other dialects of Kimeru. Further, the findings of this study will assist researchers in doing a comparative study in reduplication of different languages and dialects. Finally, the study can also be used by scholars to study reduplication in other languages as well as looking at different aspects of reduplication in the languages.

1.6. SCOPE AND LIMITATIONS OF THE STUDY

There are several dialects of Kimeru as enunciated by different scholars (Bennet: 1981 listed 6, Marete: 1981 indentifies 5 while Gacunku: 2005 studied up to 8 dialects). This study was based on the Ki-imenti dialect spoken in South Imenti, North Imenti and Central Imenti constituencies. There are seven parts of speech in Kimeru language, namely nouns, pronouns, adjectives, verbs, adverbs and conjunctions. Prepositions in Kimeru are marked by full words as well as suffixes, for instance, -ne as in Gitandene (on the bed) among others. This study not only focuses on general reduplication in Kimeru but also attempted to analyse affixes that portray reduplication in Kimeru. The researcher looked at total and partial reduplication as well as prefixal and suffixal reduplication.

The researcher focuses on reduplication in only the four open categories of speech in Kimeru; Nouns, adjectives, verbs and adverbs. Further the study attempts to explore the functions of reduplication in Kimeru and finally looks at pseudo-reduplication as an aspect of reduplication in Kimeru. Overall, this study being a morphological analysis of reduplication in Kimeru, focused mostly on the reduplicated words in Kimeru.

1.7 DEFINITIONS OF CONCEPTS

Base: This is any form to which affixes of any kind can be added. This means that any root or any stem can be termed as a base but the set of bases is not exhausted by the union of the set (Bauer 1983:21).

Closed grammatical categories of speech: a closed class is one to which new items are rarely added. Closed classes contain a much smaller number of words compared to open classes. They include: prepositions, conjunctions and interjections.

Constituent: In syntactic analysis, a constituent is a word or a group of words which function(s) as a single unit within a hierarchical structure

Morphological Doubling Theory (MDT): This is a theory that focuses on Reduplication as a double occurrence of a morphological constituent meeting a particular morpho-semantic description. (Inkelas and Zoll: 2005)

Morphological process: This is a means of changing a stem to adjust its meaning to fit in syntactic and communicational context.

Open grammatical categories of speech: An open class is one that commonly accepts the addition of new words. Open classes normally contain large numbers of words. “Examples of open-class words are those belonging to the major part-of-speech classes (nouns, verbs, adjectives, and adverbs), which in any language tend to be quite large and 'open-ended,' that is, an unlimited number of new words can be created and added to these classes. (Akmajian et al: 2001)

Optimality Theory (OT): This is linguistic model proposing that the observed forms of language arise from the interaction between conflicting constraints. Optimality Theory was introduced in the 1990s by linguists Prince and Smolensky. Though originally developed from generative phonology, the principles of Optimality Theory have also been applied in studies of syntax, morphology, pragmatics, language change, and other areas. (Prince and Smolensky: 2004)

Parts of speech: A category to which a word is assigned in accordance with its syntactic functions. The eight parts of speech include - verbs, nouns, pronouns, adverbs, adjectives, prepositions, conjunctions, and interjections. Word classes may be either open or closed.

Reduplicant: The part of the word that is being doubled/ reduplicated. It can be a prefix, an infix or a suffix.

Root: In linguistics, a "root" is the core of the word. It is the morpheme that comprises the most important part of the word. It is also the primary unit of the family of the same word. Further, a root is a form that is not further analysable in terms of derivational or inflectional morphology. It is that part of a word form which remains when the inflectional and derivational affixes have been removed. A root is the basic part that is always present in a lexeme (Bauer 1983:20).

Stem: A stem occurs after affixes have been added to the root. Bauer (1983) says that it may be - but need not to be complex, either in that it contains affixes or in that it contains more than one root, for example: root (*act*)

Re-act

Re-act-ion

E.g. In 'Untouchables' the stem is 'untouchable'. In 'touched' the stem is 'touch' (ibid: 20)

Hence a stem is a form to which affixes (prefixes or suffixes) have been added.

Sub-constituent: This is a part of a word or a group of words which function(s) as a single unit within a hierarchical structure.

1.8 LITERATURE REVIEW

1.8.1 LITERATURE REVIEW ON KIMERU

Many studies have been done on different aspects of Kimeru as well as other related Bantu languages. Nyaga (2014) did a study on Morphological reduplication of Ki-embu, a language closely related to Kimeru, her study is closely related to reduplication in Kimeru and was of much assistance during this research study. Taitumu (2014) did a study on Kimeru word-formation processes using an onomasiological approach. His study was based on different word formation processes in Kimeru. He gave a general overview of the word formation processes in Kimeru. His study was also useful for this research in obtaining different Kimeru words and also for the fact that reduplication is one of the word forming processes in Kimeru.

Other studies include Maore (2013) who based his study on the phonological basis of misspellings in written English of Kimeru speaking pupils in public Primary schools. His study focused on whether the phonology and orthography of Kimeru as a learner's first language affected his/her spelling. His study, although not based on reduplication was of importance to this study which focused on the orthography and phonology of Kimeru words, aspects that were used to discuss reduplication of Kimeru words.

Mwebia (2001) did a study on Lexical pragmatic analysis of sense relations in Kimeru. The study was aimed at finding out differences and similarities in the sense relations involving corresponding lexical items in English and Kimeru. Finally, Gacunku (2005) looked at the phonological investigation of irregularity in Kimeru concordial system. She focused on irregularities evidenced in synchronic grammar, where her major task was to account for these irregularities.

1.8.2 LITERATURE REVIEW ON REDUPLICATION

Novotna (2000) studied reduplication in Swahili; this study attempted to examine the formal properties of reduplication in Swahili and the functional characteristics of reduplication in Swahili. Later, the study concentrated on Pseudo-reduplication in Swahili as a situation where words seem to be reduplicated though they really are not.

Novotna then gave a set of concrete examples to support this research on pseudo-reduplication (Ibid 72). The study helped to summarize the aspect of reduplication in Swahili and also extended the knowledge on the phenomenon of reduplication (Ibid 73). This study came in handy when dealing with reduplication and pseudoreduplication of Kimeru words. Both Kimeru and Swahili have a lot in common as both are Bantu languages.

Nyaga (2014) looked at Kiambu reduplication. Her study sought to establish the linguistic units that are affected by reduplication. Later, she focused on both partial and total reduplication in Kiambu, aspects that were also discussed in this research study. Nyaga established that total or complete reduplication is the most common type of reduplication in Kiambu (Ibid 78). Further, her study used MDT to account for reduplication of Kiambu words. In her study, most of the data analysed the base and the reduplicant were equal semantically, the same value as presupposed by the Morphological Doubling Theory. The study further studied the semantic value of reduplication and concluded that the function of reduplication construction is sometimes determined by the context in which it is offered. Finally, the study sought to establish whether reduplication in Kiambu is considered a morphological or phonological process. Her work assisted the researcher in this study while looking at morphological reduplication of Kimeru words as well as accounting for it using the Morphological Doubling Theory.

Jiji (2008) while studying Lutriki Noun Derivation established that derivational noun morphology in Lutriki is achieved through a process of affixation, compounding and reduplication. The study states that the process of reduplication fuses a base lexeme and a reduplicant to derive a reduplicated word form. The data collected was analysed through Natural Generative Phonology and Morphological Doubling Theory. This study on the other hand, sort to establish the reduplication of Kimeru words using only the Morphological Doubling Theory.

Silverman (1993) while studying reduplication in Kihehe stated that, reduplication is a both a morphological and phonological process and it is subject to constraint holding both domains. He argued that reduplication may be explained when the proper phonological and morphological principles are considered. This study however, was based only on a morphological approach of Kimeru reduplication.

Okello (2007) studied Reduplication in Dholuo. The data she used was common Dholuo words which reduplicated using various modes of reduplication or which occur in reduplicated form. She further focused on the semantic functions of reduplication in Dholuo. This study on the other hand, used common Kimeru words that fall in the classes of nouns, verbs, adjectives and adverbs, later established the functions of reduplication in Kimeru and eventually focused on the types of reduplication.

Ashton (1944) as cited by Nyaga (2014) in his book on Swahili grammar, gave various functions of reduplication in Swahili namely; emphasis, expressing intensiveness, modifying the force of a word, expressing continuous actions and expressing distributive idea. With Swahili being a Bantu language his work was helpful for this study while discussing functions of reduplication in Kimeru which is also a Bantu language.

Downing (2009) while studying Linear Disorder in Bantu reduplication stated that, many Bantu languages have a process of (partial) verb stem reduplication, with the meaning of doing the action of the verb here and there from time to time. She further established that, a common position for the reduplicative morpheme (RED) to occur is immediately preceding the morphological stem. This study also seeks to establish the position of the reduplicant in Kimeru words whether prefixal or suffixal.

Matthew (1974) as cited by Nyaga (2014) studies reduplication as a morphological process. He discusses different types of reduplication including partial, complete, prefixal and suffixal reduplication (ibid: 14). This study also established these types of reduplication in Kimeru words.

These are among several studies that have been done in Kimeru and other languages. These studies clearly portrayed that the subject of Reduplication in Kimeru has not been studied as yet. However, the same has been done in Ki-embu which is closely related to Kimeru and Dholuo among other languages. This study based its research on reduplication in Kimeru words paying close attention to the open grammatical categories of speech, functions of reduplication in Kimeru and investigated the aspect of pseudoreduplication as well as other reduplicated expressions in the language.

1.9 THEORETICAL FRAMEWORK

While studying reduplication in different languages researchers have used different theories to try and account for reduplication in each of these languages. Some researchers used phonological approaches while others used morphological theories among other theories. Below some theories that have been used before while studying reduplication.

Kirchner (2010) studied reduplication using a new theory called Minimal Reduplication theory. He states that Minimalist reduplication predicts that morphological reduplication should be minimal in the amount of material copied because the theory sees this kind of reduplication as a phonological repair process, it should occur only when compelled to do so and only to the degree to which it is compelled.

While discussing Reduplication in Korean Ideophones, Jin-Hyung Kim (1997) based his study on Optimality Theory (OT). Optimality Theory was proposed by Prince and Smolensky (1993), McCarthy and Prince (1993) and developed by many others. Kim states that OT is an attempt to shed fresh light on the well-formedness constraints in Linguistic Theory.

Inkelas (2008) argues that morphological doubling which occurs for a morphological purpose such as marking a change in meaning or creating a new stem type is the result of the doubling of a morphological category such as a root, stem or an affix. Morphological doubling modeled via the double insertion mechanism (Inkelas and Zoll 2005) is not derived by phonological correspondence and therefore is not subject to any phonological properties characteristics of phonological reduplication. The two copies related morphosemantically, are phonologically independent. Further stating that morphological doubling is morphologically driven.

Inkelas and zoll (2005) cited by Inkelas (2008) state that Morphological reduplication results from the double insertion of a morphological constituent. The constituent can be the entire word and in other cases it can be a subconstituent: stem, root or an affix. Inkelas further argues that in Morphological Doubling Theory there is no phonological correspondence between two copies of the relevant morphological constituent. Double morphological insertion, not the phonological grammar, is the mechanism producing duplication. Phonology is nonetheless crucially involved in many morphological doubling constructions. MDT draws heavily from the observations of, Steriade (1988) and McCarthy and Prince (1999), (ibid: 6).

Inkelas' work provided the researcher with the much needed information about morphological doubling and Morphological Doubling Theory.

According to Inkelas and Zoll (2005) previous approaches to reduplication have been phonological in nature, treating reduplication as phonological copying of or correspondence to a base string (e.g Wilbur 1973, Marantz 1982, Clements 1985, Kiparsky 1986, Mester 1986, Steriade 1988, McCarthy and Prince 1995). However, Inkelas and Zoll (2005) defended radically a different approach of Morphological Doubling Theory. In this model reduplication is purely morphological, and not as a result of phonological copying. Although they looked at both phonological and morphological approaches, they argued in favour of Morphological Doubling Theory. Their work contributes a great deal to this study as it used Morphological Doubling Theory to account for reduplication in Kimeru words and also used the Tenets of MDT to establish for the analysis of the data. It also equipped the researcher with the knowledge about the difference between Morphological Doubling Theory and other phonological approaches.

Nyaga (2014) while studying reduplication in Kiambu used The Morphological Doubling Theory (MDT) as proposed by Inkelas and Zoll (2005). This research involves Kimeru words; therefore, was based on a morphological theory. We chose to use the Morphological Doubling Theory (MDT) as was proposed by Inkelas and Zoll (2005).

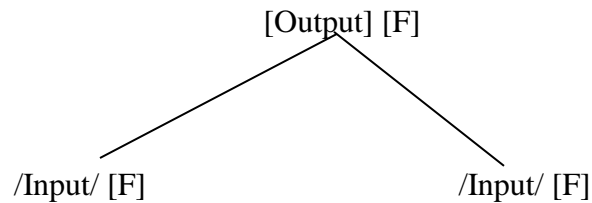
1.9.1 MORPHOLOGICAL DOUBLING THEORY

This study used Morphological Doubling Theory (MDT), which was propounded and developed by Inkelas and Zoll (2005). They were building on earlier proposals by Singh (1982), Saperstein (1997) Sherrad (2001), and others.

Following Inkelas and Zoll (2005), we assume that morphological reduplication results from a situation where a construction calls twice (double insertion) for the same morphological constituent. The morphological constituent here being an entire word, but in other cases it might be a sub-constituent; stem, root, or even an affix. MDT is an approach to reduplication in which morphological constructions can call for two instances of the same morphological constituent where "same" is defined as the level of meaning, not phonology.

Morphological doubling can target a whole word, a root, or even an affix. Morphological doubling is an input mandate (directive) on the part of morphology. Morphological Doubling Theory assumes the same morphological structure for every case of reduplication. A reduplicated stem (or “reduplication construction” has two daughters which bear the same morphosyntactic features (F) as shown below:

1. Reduplication Construction:



In this structure;

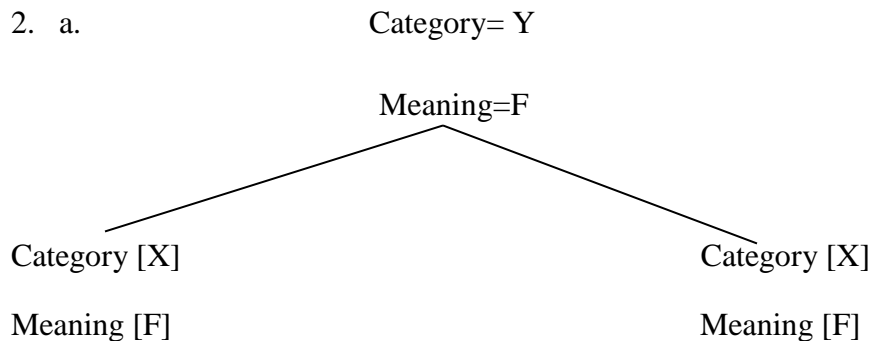
[F] – Morphosyntactic Features

Inputs – these are sisters which need only to be similar semantically (similar in meaning).

Output – the reduplicated form (with an added meaning).

Consequently, Inkellas and Zoll (2005) stated that identity in morphology is computed in terms of morphosemantic content but not phonological doubling scheme (Ibid 63). The example given below by Inkellas and Zoll shows a general morphological doubling scheme (Ibid 63).

2. a.

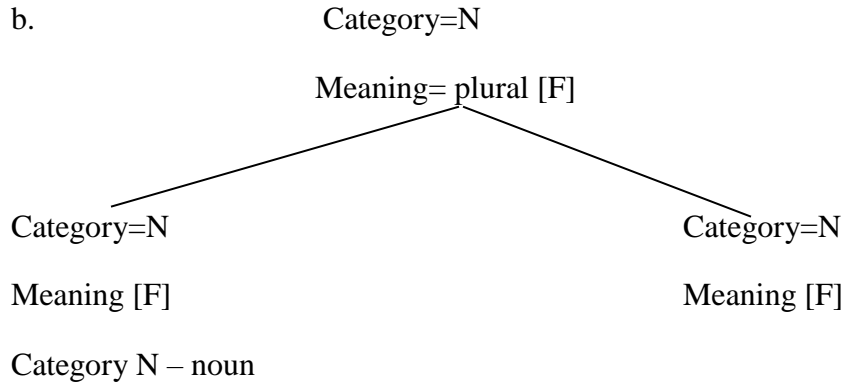


Categories – any part of speech in grammar.

Category Y – the reduplicated form (with an added meaning).

Categories X – the inputs (which share meaning).

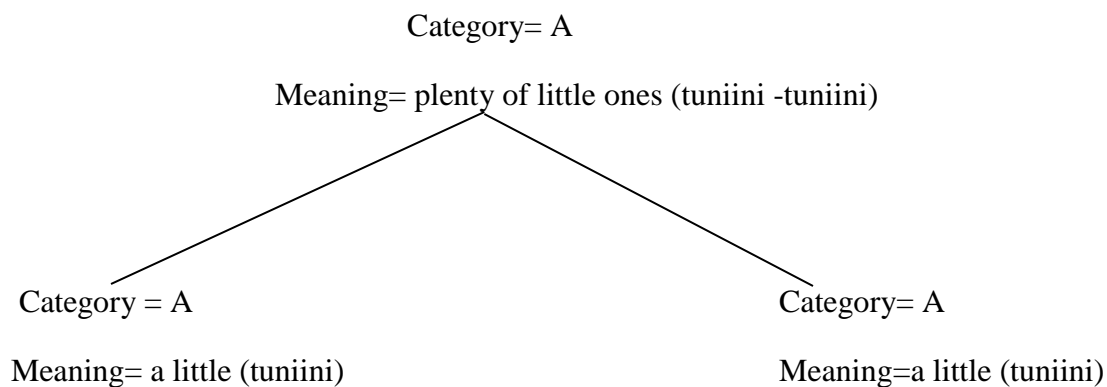
The next example shows the specific schematic constructions that accomplish pluralization. It involves total reduplication. The category could be representing any part of speech. In this case we assume that the category is a noun. The noun is represented with the letter ‘N’.



The inputs are in the category of nouns and both are in the singular form while the output in this case is a noun too but it is in the plural form, showing that it has an added meaning as explained in the first example.

The next example represents Kimeru words with an output that is pluralized. This is an example of Kimeru adjective to show pluralization. The adjective is adjective ‘tuniini’.

3. ‘Tuniini’ - meaning “a little”



This is an example of a structure showing total reduplication. The morphological constituent ‘tuniini’ has been doubled to bring out the output ‘tuniinituniini.’

The reduplicated form therefore has an added or rather a new meaning. The input word ‘tuniini’ means a little. While the reduplicated form ‘tuniinituniini’ means plenty of little ones. However, both the inputs and the output share a similar category, they are all in the class of adjective.

According to Inkellas, in MDT, reduplication is viewed as the double (or multiple) occurrence of a morphological constituent meeting a particular morphosemantic description. MDT thus departs from previous theories in which the reduplicant is treated as an abstract morpheme (RED), whose substance is provided by phonological copying. This concept of phonological copying originates in the seminal work of Marantz 1982, McCarthy and Prince 1996, 1999b and Steriade 1988, which assume that the imperative to phonetically realize an abstract morpheme, requires phonological copying from a base constituent. The reduplicant derives its segmental content by means of copying from the base; e.g. Marantz, 1982, Steriade, 1988).

For example, by using, ‘Copy association rule’ given by Inkellas (2014: 115)

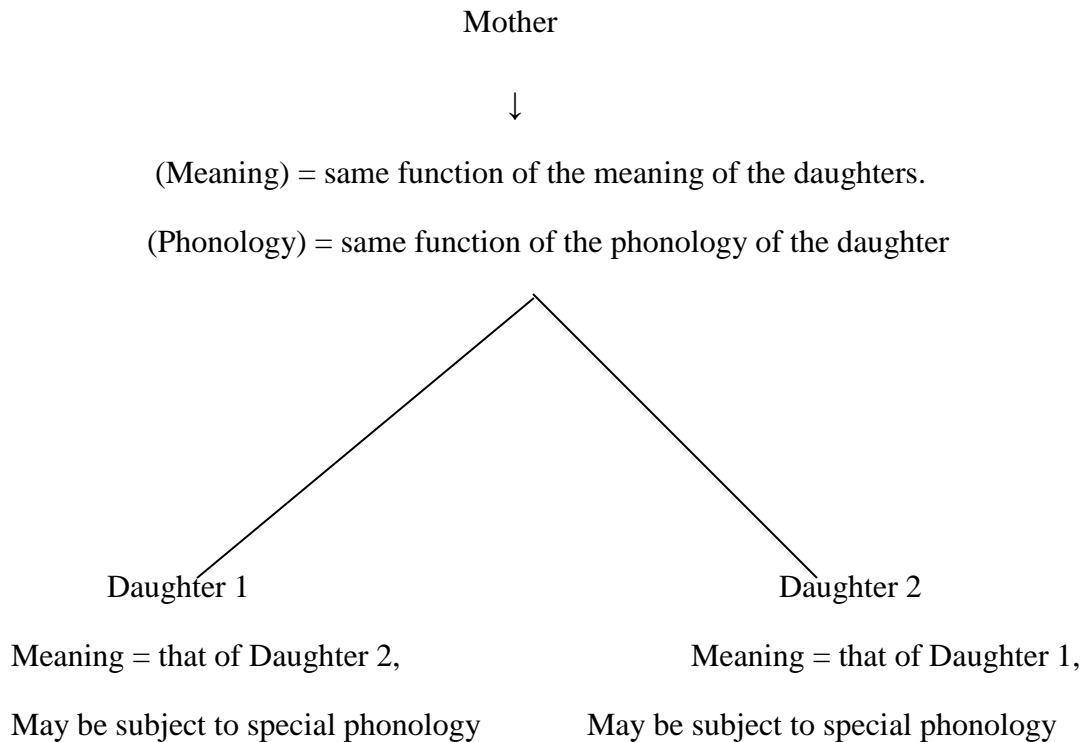
4. Reduplicant + base → the reduplicated word

taki + taki → taktakki

In MDT, the reduplicant (the part that is reduplicated) and the base are both produced in morphology as part of a construction, which also embodies semantic and phonological generalization about the output of reduplication.

The example below implies that the two daughters shown are similar semantically and phonologically. However, they can differ slightly in phonology due to special phonology. In partial reduplication the reduplicant (one of the daughters) may be truncated or shortened. The two daughters therefore produce the mother which in this case shares a similar meaning with the daughters. This example applies to partial reduplication. However, a similar structure would also be used on the total reduplication, only that in total reduplication, there is no effect on the phonology the two daughters are similar phonologically.

5.



The same morphological structure is assigned to total reduplication, which differ solely on whether or not one of the daughters is phonologically truncated (shortened).

1.9.2 MAIN TENETS OF MDT

Inkellas and Zoll (2005) state that Morphological doubling results from double insertion of a morphological constituent or sub-constituent (infix, suffix and prefix). Inkelas (2005) stated that morphological doubling is an insertion of a constituent which meets a particular morphosemantic description that the inputs must carry similar meaning.

Inkellas and Zoll (2005) further argue that morphological doubling is a linguistic process under morphology and can be used to extract various meanings ranging from iconic ideas to idiomatic ideas to doubling that is not semantically contentful (does not share meaning) but is a result of other semantically contentful constructions as will be explained below in the functions of MDT.

This study focused only on reduplication of Kimeru words and was based on the following tenets; that morphological doubling results from double insertion of morphological constituent (a

whole word) or subconstituent (part of a word), that morphological doubling is an insertion of constituents which meets a particular morphosemantic description and that reduplication involves bringing together two stems that meet the same morphosemantic description which may be having some phonological modification. Finally, MDT can be used to extract various meanings. The reduplicated words whether partially or fully reduplicated should be similar in meaning. At the same time these words portray various functions. The inputs may be subject to phonological modifications. The main idea in doubling theory is that the doubling construction must be morpho-semantically identical. i.e. the base and the reduplicant should be agreeing morpho-semantically (the input should be related should share similar meanings).

1.9.3 OVERALL MOTIVATION FOR MDT

Inkelas and Zoll (2005) argue that reduplication is a morphological process and not as a result of phonological copying. This is because reduplication is a situation in which a construction calls twice for inputs which have the same morphosemantic features. MDT is more descriptively adequate and at the same time more constrained in its predictions than any existing phonological approaches (McCarthy & Prince: 1995). We chose Morphological Doubling Theory (MDT) for our analysis in all cases of reduplication for this study because the study is morphological in nature.

1.9.4 FUNCTIONS OF MORPHOLOGICAL DOUBLING

The morphological functions of morphological doubling vary greatly, ranging from a familiar case of doubling associated with an iconic meaning to doubling associated with a more idiomatic meaning, to doubling that is not itself semantically contentful but is a concomitant of other semantically contentful constructions such as prefixes, infixes and suffixes. These affixes are not semantically contentful on their own but when reduplicated and used together with the base they become semantically contentful.

6. a. For instance, in Kimeru, the suffix ‘-thongi’ /-ðɔŋgi/ does not have any meaning that could be related to the adjective muthongi /moðɔŋgi/ (beautiful).

Actually on its own, the word ‘-thongi’ /ðɔŋgi/ does not have any particular meaning in Kimeru. However, when used together with muthongi /moðɔŋgi/ after reduplication then it becomes semantically contentful and the resulting word is shown in the example below.

- b. ‘muthongathongi’ /moðɔŋgaðɔŋgi/ More beautiful

The word is semantically contentful because the suffix ‘thongi’ /ðɔŋgi/ which is derived from the base (as a sub-constituent of the base) is used together with a semantically contentful base ‘muthongi’ /moðɔŋgi/ - beautiful. Hence the output ‘muthongathongi’ /moðɔŋgaðɔŋgi/ which on its own means more beautiful.

This research use study used MDT to study total and partial reduplication, the reduplication in the open grammatical categories of speech in Kimeru and the functions of reduplication in Kimeru. To sum up, Inkellas and Zoll (2005) argue that, while there is no necessary uniformity in the types of semantic function associated with the outcome of morphological doubling there is uniformity in inputs: the two inputs to a morphological doubling construction must be morphosemantically identical. (That the inputs and the output need not to have the same semantic functions, but the inputs must have the same semantic function in morphological doubling).

1.10 RESEARCH HYPOTHESES

This study was guided by the following hypotheses;

1. Reduplication occurs in all the open grammatical categories of speech in Kimeru.
2. Reduplication reflects different functions in Kimeru words.
3. Pseudoreduplication is an independent aspect of language in Kimeru.
4. Reduplication is a morphological process supported by Morphological Doubling Theory (MDT).

1.11 METHODOLOGY

1.11.1 Sample Selection

Purposive sampling was used in this study. The study was based on the individuals who are native speakers of Kimeru language. Ki-imenti native speakers were the preferred informants to make the data correct and reliable. The researcher being a native speaker of the language was among the primary sources to be used in this study. However, there were ten other informants who through purposive sampling were selected by the researcher basing on their knowledge of Kimeru language. These informants assisted in getting information about reduplication in Kimeru.

1.11.2 Data collection techniques

In this study the researcher, being a native speaker was the main informant and ten other adult informants were used to clarify the data. The researcher made a personal observation and used questions to interview the ten given informants to ensure that they had a similar or close to similar knowledge of Ki-Imenti dialect. However, part of this data was still acquired from other primary sources by reading the relevant literature, e.g. The Kimeru Dictionary, Story books i.e (Ui Wiji Atia? translated as ‘What do you know? And Jukia Iuku Ukathome translated as, ‘Take the book and read’) among others.

1.11.3 Data Analysis

This study focused on Kimeru reduplication; it was based on four open grammatical categories of speech of the Ki-imenti dialect. These included; nouns, adjectives, verbs and adverbs. It studied reduplication in all these categories of speech in Kimeru, further it focuses on the types of reduplication and later on looked at the functions of reduplications in Kimeru language. This enabled the researcher to focus on further aspects of reduplication in future. The study was keen on using ten native adult informants believed to have the proficiency in the language. The number was restricted to ten because the researcher is based in Mombasa hence catering for transport to and fro and time was expensive and therefore a challenge. The informants were adults who were aged between 30 years and above but not beyond 70 years. This is because we believe by this age they have acquired enough oral proficiency in their native language. At the same time the people selected should be able to read, understand and write in Kimeru.

2.0 CHAPTER TWO: VOWELS, CONSONANTS AND CLASSIFICATION OF KIMERU WORDS.

2.1 Introduction

This chapter aims at providing basic information regarding Kimeru language; the information will be useful in facilitating the understanding of the succeeding chapters. The chapter begins with Kimeru vowel system and the Kimeru consonants giving their orthographic representation and their IPA symbols. Later we give examples of each given vowels and consonants to make them easy to understand. Thereafter the study outlines the Kimeru parts of speech focusing on both the open and closed categories of speech. This information will come in handy while discussing reduplication in the open categories of speech; it will form a basis for the words that will be used when giving examples in the succeeding chapters and lay a foundation for the whole study.

2.2 Kimeru Vowels

Fr. Giorgis (1964) listed seven vowels that are used in Kimeru. He identified both short and long vowels that he used while writing a tentative Kimeru dictionary. On the other hand, Gacunku (2004) and Marete (1981) stated that Kimeru has seven vowels just like any other Bantu languages. Each of the short vowels has a long counterpart.

The seven basic Kimeru vowels are shown below, both in their orthographic and IPA symbols.

Orthographic	IPA symbol
a	/a/
e	/ɛ/
i	/i/
o	/ɔ/
u	/u/
ĩ	/e/
ũ	/o/

The following charts show the relative positions of the seven basic vowels in Kimeru:

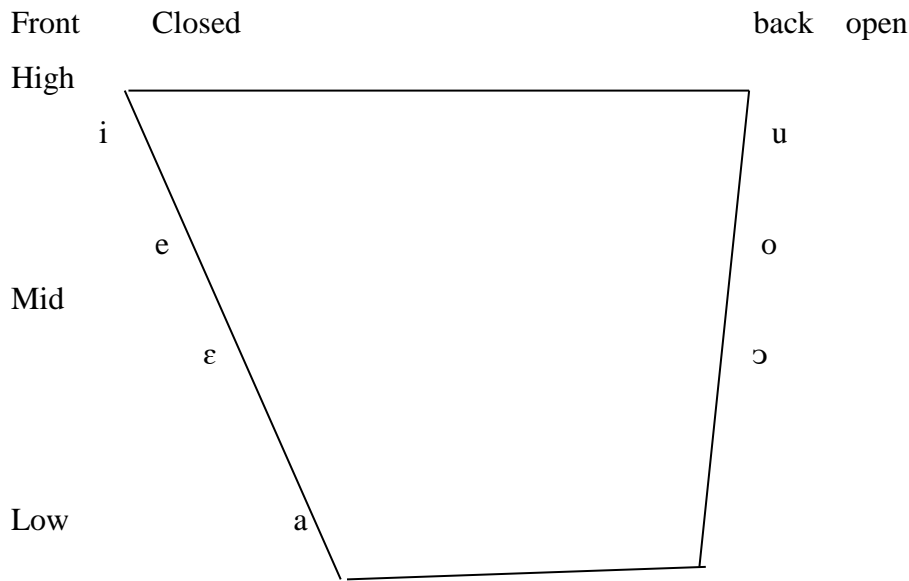


Table 1: A chart showing Kimeru vowel sounds and the tongue's positions.

Front	Front	Back	Back
High	i	u	High
Mid	e	o	Mid
Mid	ε	ɔ	Mid
Low	a		Low

2.3 Kimeru consonants

For this research we were able to establish twenty three consonants including nine prenasalised consonants that are used in the Imenti dialect.

We looked at orthographic representation and IPA symbols and later on gave examples in Kimeru. These examples were then translated in English as follows.

Table 2: A chart showing the IPA and orthographic symbols of consonants in Kimeru.

Orthographic Representation	IPA Symbols	Kimeru Words	Orthographic Representation	English
b	/β/	baba	/βaβa/	father
mb	/mb/	mbūrübūrū	/mboroboro/	bullet
c	/s/	cuburia	/suburia/	sufuria
nc	/ns/	ncancamo	/nsansamɔ/	vaccine
nd	/nd/	ndaa	/nda:/	louse/lice
g	/ɣ /	gaciũ	/ɣasio/	knife
ng	/ŋg/	ngorogoro	ŋgɔrɔɔrɔ	thunder
j	/j/	Jũjũ	/jo:jo/	grandmother
nj	/nj/	nja	nja	home
k	/k/	kaana	/ka:na/	child
nk	/ŋk/	Nkoro	/ŋkɔrɔ/	heart
m	/m/	maama	/ma:ma/	sleep

n	/n/	naarua	/na:rua/	today
ng'	/ŋ/	ng'ana	/ŋana/	bitter
mp	/mp/	mpempe	/mpɛmpɛ/	maize
r	/r/	rita	/rita/	remove
t	/t/	tiga	/tɪa	stop
nt	/nt/	nteto	/ntɛtɔ/	news
th	/ð/	thiria	/ðiria/	finish
nth	/nð /	ntharimi	/nðarimi	blessings
w	/w/	weerũ	/we:ro/	light
y	/j/	yaarĩ	/ja:re/	cooking stone
ny	/ɲ/	nyongũ	/ɲɔngo/	Pot

Prenasalisation is a feature that is common in Kimeru language. The following is a list of prenasalised consonant which were not in the IPA chart.

2.3.1 Prenasalised consonants in Kimeru

- /mp/ prenasalised voiceless bilabial plosive
- /mb/ prenasalised voiced bilabial plosive
- /ŋk/ prenasalised voiceless velar plosive
- /ŋg/ prenasalised voiced velar plosive

/nt/ prenasalised voiceless alveolar plosive

/nd/ prenasalised voiced alveolar plosive

/nð/ prenasalised voiced dental fricative

/nj/ prenasalised voiced palatal fricative

/ns/ prenasalised voiceless alveolar fricative

We summarized Kimeru consonants by putting them in the following IPA chart. These consonants are important because they were used throughout the study as we look at reduplication in Kimeru words. The following IPA chart features only the consonants that are found in the Imenti dialect and shows their place and manner of articulation.

Table 3: A chart showing the Kimeru consonant sounds.

	Bilabial	Dental	Alveolar	Palatal	Velar
plosives			t		k
nasals	m		n	ɲ	ŋ
Trills			r		
Fricative	β	ð	s	j	ʁ
glides	w			j	

According to this research study, we found out that there are fourteen consonants as seen on the IPA chart excluding the prenasalised consonants. All these consonants and vowels were helpful while writing Kimeru words in this research project.

2.4 Kimeru Parts of speech

This section looks at the analysis of the kimeru parts of speech. These included; nouns, verbs, adjectives, adverbs, prepositions, pronouns and conjunctions as listed by Fr. Giorgis (1964). These were useful in this study as it focused on reduplication on the open categories of speech that is the nouns, verbs, adjectives and adverbs.

2.4.1 Nouns

According to Nyaga (2014:29), Bantu languages have a noun affix and a stem. These affixes have a stem. The affixes and noun stem constitute a criterion for dividing nouns into a number of classes that differ from each other in a variety of grammatical categories. Nouns in the same class share an identical prefix. This however, is not always the case.

Therefore, a classification based on prefix is not always sufficient. This is because two nouns belonging to the same class may have different prefixes for historical reasons (Mberia 1993:44). Some examples in this case include the following of Kimeru singular and plural words.

7. singular	plural
muntu	antu (m-a) (munto...anto)
mwari	aari (m-a) (mware.... a:re)
mwiji	biji (m-b) (mweje...bieje)

These examples show that prefixes in the same class of nouns do not necessarily match. At the same time there are other nouns in Kimeru that do not have any prefixes at all either in singular or plural form as shown in the examples below.

8. Singular	plural
Ng'ombe	ng'ombe (ŋɔmbɛ ŋɔmbɛ)
Mbiti	mbiti (mbiti mbiti)

There are other nouns that are borrowed from other languages; these do not necessarily follow any morphological rule whether in singular or plural.

Therefore, as Mberia stated, it is inappropriate to classify nouns relying on prefixes only (Mberia 1994:44). Of course Mberia proposed other ways of classifying nouns in Kimeru basing on syntactic constructions which were not looked at in this research project. We used the English noun classification. Which included; proper nouns, common nouns and collective nouns which

will be discussed in details while discussing reduplication in nouns in the succeeding chapter three of this study. Traditionally nouns were assigned as a class of words in which occur names of the most people, places and things.

2.4.2 Verbs

Verbs are words that convey that an action is taking place. For instance;

9. ruga /ruɣa/ - (cook) ita /eta-(go) among many other words.

According to Nyaga (2014:34), Bantu languages are agglutinative meaning that they are characterized by adding prefixes and suffixes to the root verb. For instance, verbs can be formed by adding prefixes and suffixes as shown in the following examples.

10 a. rea /reɑ/ - eat kurea /koreɑ/ - to eat (prefix /ko-/)

c. rita/rita/ - remove ritira /ritera/ - remove for (suffix /-ra/

The above examples are concerned with the verb formation; however, this research project was concerned with reduplication of verbs therefore, did not go into details on verb formation.

Schater and Shopen (1985) defines a verb as a name given to the part of speech class in which occur most of the words that express actions, process and the like. They further stated that in all languages it is possible to sub-classify verbs as transitive or intransitive on the basis of whether or not they occur with objects. This however, was not a main concern in this research project. We based our research on the reduplication of common Kimeru verbs.

2.4.3 Adverbs

These are words that modify verbs. We based our research project on the four classifications of adverbs.

Adverbs of manner are used to show how something is done; some Kimeru adverbs of manner include the following;

11. a. mpwi /mpwe/ - quickly ija na mpwi (come quickly)

b. Kaoora /kaɔ:ra/ -slowly ita kaoora (walk slowly)

Adverbs of place show the place where something is done. For instance, the following examples show Kimeru adverbs of place;

12. a. aja /aja/ - (here) rete giti kiu aja (bring that chair here.)
b. aria /area/ - (there) kara aria (sit there.)
c. kunthe /kunðe/ - (everywhere) kwina mbubui kunthe nyomba (there are spiders everywhere in the house)

Adverbs of degree give information about how much something is done or to what extent something is done. An example in Kimeru is shown below;

13. Mono /mɔnɔ/ - very agukara kagita gakanene mono (she/he has stayed for a very long time)

Adverbs of frequency show how often something is done as shown in the following examples of Kimeru adverbs of frequency.

14. a. Rimwe /remwe/ - once mbitaga ngugine rimwe kiumia (I go to work once a week)
b. Rionthe /reɔnðe/ -always baturiungagira rionthe (they visit us always).

Adverbs of time provide information on when something happens/ takes place. For instance;

15. a. nandi /nande/ - now twite nandi (let's go now)
b. Ico /eso/ - the day before yesterday bejire aja ico (they came here the day before yesterday)

This study on reduplication was based on the above classification of adverbs. Adverbs fall in the category of the open categories of speech which is the main focus of study in this research project.

2.4.4 Adjectives

An adjective is a part of speech which describes, identifies or quantifies a noun or a pronoun so basically the main function of an adjective is to modify a noun or a pronoun. Adjectives are classified according to their noun modification roles (Gathenji: 1981)

The following are the classifications of adjectives;

Adjectives of quality also called descriptive adjectives are used to describe nouns or noun phrases as shown in the following Kimeru examples.

16. a. Nene /nene/ -big (ngaari inene) – a big car
b. Noru /noru/ -fat (mwana umunoru) – a fat child

c. Matu / matu/ - thick (ucuru bubumatu) – thick porridge

Adjectives of quantity show the quantity the number of nouns present. For instance;

17. a. Cionthe / siɔnðɛ/ nguku cionthe - all chicks.
 b. inkai / inkai/ nguku inkai – a few chicken.

Demonstrative adjectives are used to point out specific nouns. For instance;

18. a. Eeje /e:je/ - this one mburi eeje – this goat
 b. Iji /iji/ - these ones mburi iji - these goats

We also discuss reduplication of Kimeru adjectives in the succeeding chapter on reduplication in the open class and in other chapters.

2.4.5 Pronouns

These are words that are used in place of nouns to avoid a lot of repetition. Pronouns are divided into different classes. Kimeru language has personal pronouns, possessive pronouns and reflexive pronouns as shown in the following examples.

Personal pronouns are used in place of people or places.

Examples of Kimeru personal pronouns include the following:

Singular		plural
1 st person	-ni (me/I)	-twi (us)
2 nd person	-gwe (you)	-bwi (you)
3 rd person	-we (him/her)	-bo (them)
3 rd person	-yo (it)	-cio (them)

Kimeru personal pronouns occur as suffixes. For instance, the first person singular pronoun is /-ni/ (uuni) and the plural is /-twi/ (batwi). However, when used in a sentence the personal pronouns affix can be omitted in a sentence but the sentence will still be in first person second person or third person as shown in the example below;

19. a. Uuni nkuria irio (I have eaten food) this is similar to; Nkuria irio (I have eaten food)
 b. Ugwe wina mpara / (you are hungry) the same as, wina mpara (you are hungry)
 c. Bo ibaiji (they know) similar to, ibaiji (they know).

Possessive pronouns are used to show possession, who owns what. In Kimeru they occur as suffixes. The following are examples of Kimeru possessive pronouns,

Singular	plural
-kwa (mine) muti i jwakwa (the tree is mine)	-etu (ours) miti ni yetu (the trees are ours)
-ku (yours) iga i riaku (the stone is yours)	-enu (yours) maiga i jenu (the stones are yours)
-we (his/hers) giti i kiawe (the chair is hers/his)	-o (theirs) iti i biao (the chairs are theirs)

Reflexive pronouns also called emphasizing pronouns. When used in Kimeru they refer back to the person. The following examples show reflexive pronouns as used in Kimeru.

Singular	plural
Ningwa /ni-/ (myself)	twingwa /twi-/ (ourselves)
Gwengwa /gwe-/ (yourself)	bwingwa /bwi-/ (yourselves)
Wengwa /we-/ (himself, herself)	bongwa /bo-/ (themselves)
Yongwa /yo-/ (itself)	ciongwa /cio-/ (themselves)

Reflexive pronouns occur as prefixes; the suffix –ngwa used in Kimeru reflexive pronouns means ‘self’. They can be used to show emphasis in a sentence as shown;

20. a. Nkaruga irio biu ningwa (I will cook that food myself)
 b. Naarua ukeja gwengwa (Today you will come by yourself)
 c. Mwana akainga mwari wengwa (The child will close the door by itself)

Pronouns belong to the closed class of speech. Closed in the sense that they cannot normally be extended by the creation of additional members.

It is very unlikely to form new pronouns. (Quirk and Greenbaum 1983). In this study, we may be required use some examples from pronouns whenever it will be necessary in the succeeding chapters.

2.4.6 Prepositions

Preposition shows a place of a noun in relation to another (Ford:1974) as quoted by Nyaga (2014:44). They describe the relationship between words in a sentence.

Preposition can be classified as preposition of time and place of a noun in relation to another. Kimeru prepositions can be affixes or full words as shown in the following examples;

21. As suffixes;

- a. -ne gikombene (in the cup)
- b. -ne methene (on the table)

22. As full words;

- a. Ndene /ndɛnɛ/ - inside stc. Tonya ndene (get inside)
- b. Ruungu /ru:ngu/- under stc. Ruungu rwa giti (under the chair)
- c. Iguru /egoro/ – on top stc. Iguru ria metha (on top of the table)
- d. Nyuma /ɲuma/ – behind stc. Nyuma ya nyomba (behind the house)

Prepositions also fall under the closed class and may not be given any major focus in this study. However, examples of preposition may be used while discussing functions of reduplication or wherever else it is necessary and applicable in the succeeding chapters of this study.

2.4.7 Conjunctions

Conjunctions are joining words; they are used to join words, phrases or simple sentences. Kimeru conjunctions are also used basically for the same purposes as shown in the example below;

- 23. a. Indi /ende/- but Stc. Nkeja indi ti naarua – I will come but not today.
- b. Kana/kana/ - or Stc. Nkeja naarua kana ruju – I will come today or tomorrow.

Others include: na (and), nontu (because) among many other conjunctions.

Conjunctions are part of Kimeru closed word classifications. However, we may be required to use some examples of words in this class while discussing Kimeru expressions that are reduplicated in the succeeding chapters of this research.

2.5 Conclusion

This chapter has shown the Kimeru vowels and consonants classifications. The study has established that Kimeru has seven vowels all with corresponding long vowels. We also found out that there are twenty three consonants in Kimeru. These included: nasals, trills, fricatives, and prenasals. Prenasalisation is a feature found in most Bantu languages, in Kimeru prenasalisation functions as a unitary segment. We found out that the Imenti dialect lacks the alveolar lateral /l/ which is common in other Kimeru dialects. These vowels and consonants will be used while writing Kimeru words that will be used in the study.

The chapter also focused on the classification of Kimeru words into different parts of speech reviewing seven parts of speech that fall in both open and closed classes. These words formed a basis for the discussion of reduplication at the open categories of speech. The open parts of speech included nouns, verbs, adjectives and adverbs. We will be looking at the reduplication of Kimeru words in the open categories of speech in chapter three of this research project. This chapter also looked at the Kimeru closed categories of speech which included pronouns, prepositions and conjunctions. These may be used in giving further examples while discussing reduplication and the functions of reduplication in the succeeding chapters.

3.0 CHAPTER THREE: REDUPLICATION IN THE KIMERU

3.1 Introduction

This chapter looks at reduplication as a morphological feature in Kimeru. It deals with the various types of reduplication in Kimeru including total and partial reduplication as well as initial and final reduplication. Later on it examines reduplication in the Kimeru open grammatical categories of speech. These will include nouns, verbs, adverbs and adjectives.

3.2 Reduplication

Reduplication is a morphological process in which the root or stem of a word (or a part of it) or even the whole word is repeated exactly or with a slight change. “A common morphological process in some languages involves reduplication, which marks a grammatical or semantic contrast by repeating all or part of the base to which it applies.” (O’Grady, Archibald 2000:131).

Reduplication is used in words to convey grammatical functions such as plurality, intensification and lexical derivation to create new words. Kimeru functions of reduplication will be discussed later in the succeeding chapters in this research project. Reduplication is one of the word forming processes in English language as well as other languages. Spencer (1991:13) considers reduplication “...an affixation process in which some part of a base is repeated either to the left or to the right or occasionally in the middle.”

In reduplication, the base is a word (or part of the word) that is often copied. The reduplicated element is called the reduplicant, often referred to as the RED or just R, and most often repeated only once as in (you are a sick, sick man or you’re really, really sick). However, in some languages, reduplication has been found to occur more than once, resulting in a tripled form, and not a double as in most reduplication such as in She is sick, sick, sick and never She is *sick, sick! (Ghomeshi et.al:2004). Their paper presents a phenomenon of colloquial English that they called Contrastive reduplication (CR), involving the copying of words sometimes phrases as in, It’s tuna salad not SALAD-salad, or Do you LIKE-HIM like him? However, in this study we focus more on reduplication of Kimeru words.

Due to its high iconicity and to its association with child (directed) speech, reduplication was and is always considered to be a primitive means of word formation (Wudnt,1900) as quoted by Harris and Halle (2005).

This view is probably enhanced by the fact reduplication exists rarely as a morphological procedure in indo-European languages in adult speech, but it is almost exclusively known as a phonological phenomenon in child language. (Ibid: 5)

3.3 Types of morphological reduplication

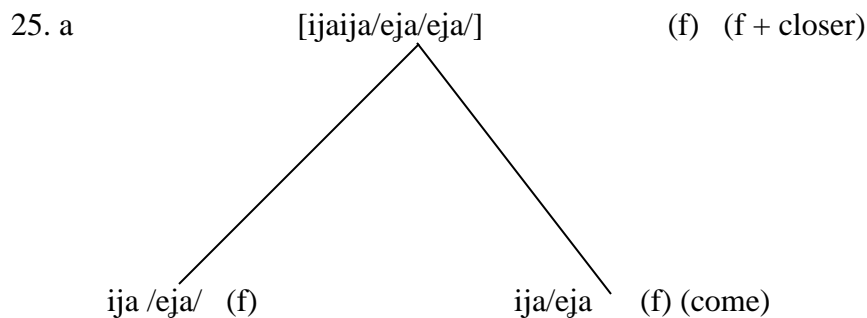
There are various ways in which words are reduplicated. We will discuss some of these in the following sections of this chapter.

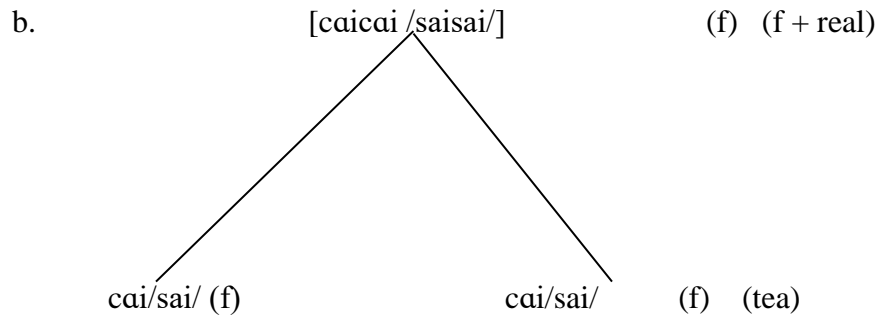
3.3.1 Total reduplication/Full reduplication

This is a morphological process where the reduplicant and the base are identical at segmental level (Ngunga 2002:105). It is also called full reduplication because the entire word is repeated. Full reduplication therefore involves the exact repetition of a sound or word. In English this would involve putting together a sound or morpheme to bring forth an entirely new grammatical function or semantic feature. It is difficult also to tell if the reduplicant is the suffix or the prefix in a word because full reduplication involves the repetition of a whole word. The examples below show full reduplication in Kimeru words.

24. The word	reduplicated form
a. Ija - come	ijaija - come closer
b. Cai - tea	caicai - real tea

The above examples of fully reduplicated Kimeru words follow the MDT's approach to reduplication of the stem ija /eja/ MDT dictates that the morphological constituents that are doubled are equal semantically (agree on their semantic specifications) as shown in the following examples;





As shown in the examples above, MDT calls twice for the inputs that share a similar meaning. The outputs have some additional information; ‘a comparative’ in the first example and ‘real’ in the second example. Hence the MDT view that, morphological doubling involves the double insertion of morphological constituents or subconstituents which meet a particular morphosemantic description. However, as shown Kimeru marks a change of meaning in the output as in the examples above. The original word changes its meaning slightly after reduplication.

3.3.2. Partial reduplication

This is a form of reduplication that involves the reduplication of only a part of a word. Several words are partially reduplicated in Kimeru as shown in the following examples.

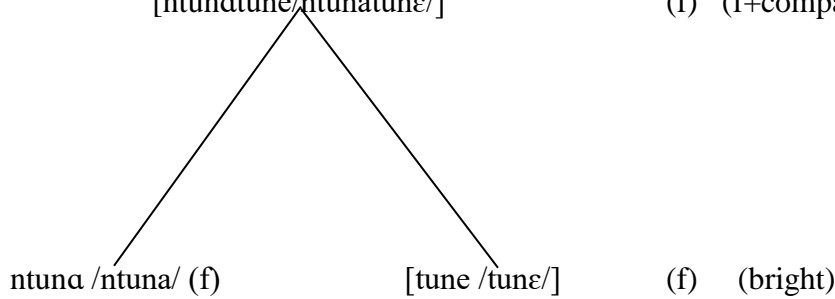
26. a. muthongi (beautiful) munthongathongi (more beautiful) the reduplicated part (-thongi)
 b. Ikira (put) ikaikira (put more) the reduplicated part (ika-)
 c. muraja (tall) murajaraja (taller) the reduplicated part (-rja)
 d. intune (bright) intunatune (brighter) the reduplicated part (tune)

From the above examples we found out that the root words generated the reduplicant. In these examples some of the reduplicants are placed before the rootword. For instance, ikira /ekera/ (put) after reduplication the word changes to ikaikira /ekaekera/ (put more) the reduplicant is the prefix eka- which comes before the rootword. At the same time the reduplicant can be placed after the root word. For instance, intune /entune/ when reduplicated changes to intunatune /entunatune/ (brighter) the reduplicant in this case is the suffix /-tune/ placed after the rootword.

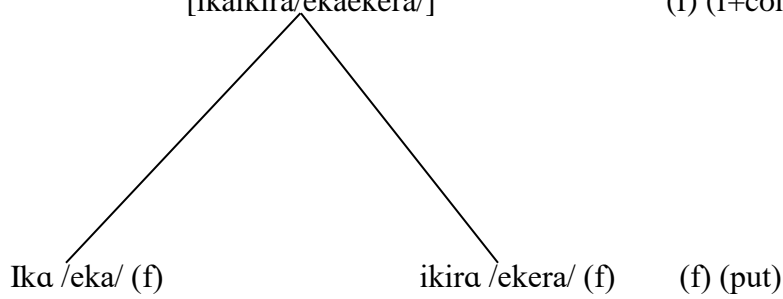
In some words, there is an addition of /a/ sound at the end of the base and the loss of the final vowel sound like /i/ and /ε/ in the given examples ntune /ntune/ and nthongi /nḏoŋgi/ above. This is a feature common to Kimeru adjectives and will be discussed in details while looking at the functions of reduplication in the succeeding chapters.

The above examples show the semantic relationship of the inputs in the partial reduplication using MDT Theory as shown below;

27. a. [ntunatune/ntunatuἛ/] (f) (f+comparative)



b. [ikaikira/ekaekera/] (f) (f+comparative)



According to (Greenberg: 1966) it is well known that agglutinating languages have only suffixation, while non-agglutinating (isolating and inflecting) languages like English have both suffixation and prefixation. As quoted by (Kim: 2009).

However, as we can see from the examples above partial reduplication in Kimeru involves prefixation and suffixation or initial and final reduplication as we discussed in this chapter.

3.3.2.1. Prefixal reduplication

This type of reduplication is also known as initial reduplication. Here a reduplicant is added before the root as a prefix. Spencer (1981:150)

28. Rootwords

reduplicated words

- | | |
|----------------------|---|
| a. Geria (try) | gerageria (keep trying) the reduplicated word (gera-) |
| b. Ikira (put) | ikaikira (put a bit more) the reduplicated word (ika-) |
| c. Ituura (pour) | itaitura (pour a bit more) the reduplicated word (ita-) |
| d. Rugira (cook for) | rugarugiira(cook a bit more for someone) (ruga-) |

The prefixal reduplications in the examples above fall in the class of verbs. The prefixes in the Kimeru verbs assume that the actions are done for a longer period of time compared to the normal action. According to MDT, the semantic value of some verbs in Kimeru changes after reduplication to mean doing the action described by the verb a little bit more than it's expected.

3.3.2.2 Suffixal reduplication

This is also called final reduplication. Here the reduplicant is added after the root word as a suffix. This type of reduplication is also common in Kimeru words. The following are examples of suffixal reduplication in the classes of adjectives and verbs.

29. Adjectives

reduplicated adjective

- | | |
|--------------------------|----------------------------|
| a. umukui (a short one) | umukuakui (a shorter one) |
| b. umuraja (a tall one) | umurajaraja (a taller one) |
| c. munoru (a fat one) | munoranoru (a fatter one) |
| d. umuume (a clever one) | umumaume (a cleverer one) |

30. Verbs

reduplicated verbs

- | | |
|------------------------|--|
| a. gukura (to scratch) | gukurakura (to keep scratching) |
| b. kuringa (to hit) | kuringaringa (keep hitting/ hit several times) |
| c. kuthoma (to read) | kuthomathoma (to keep reading) |
| d. kurira (to cry) | kurirarira (to keep crying/ crying all the time) |
| e. kutheka (to laugh) | kuthekatheka (to laugh anyhow/ everytime) |

From these examples we found out that, a part of root of the given word formed the reduplicant resulting into the reduplicated word. The roots for the adjectives on example 29 above are *nkui*, *ndaja*, *noru* and *muume* respectively. These reduplicants or prefixes show the comparative form of the adjectives given.

According to MDT, the semantic value of the input can change after reduplication. In example 29, the adjectives in Kimeru change when the word is reduplicated to show comparison.

At the same time, in example 30 the prefixes in the verbs assume that the action takes place repeatedly or several times as in the case of *gukurakura*, *kuringaringa*, *kuthomathoma*, *kurirarira* and *kuthekatheka*. In this case the verb reduplicants can also be the roots when used in certain contexts, these roots include; ‘kura’, ‘ringa’, ‘thoma’, ‘rira’ and ‘theke’. According to MDT, the semantic value of a word changes after reduplication. In this case, verbs in Kimeru acquire added information after reduplication.

3.4 Reduplication in the kimeru open categories of speech

Word classes may be either open or closed. An open class is one that commonly accepts the addition of new words, while a closed class is one into which new items rarely added. Open classes normally contain large numbers of words. Typical open classes found in English and many other languages are nouns, verbs, adjectives and adverbs. Typical closed classes are; prepositions, determiners conjunctions and pronouns. This research project will be based on open word classes in Kimeru. While discussing conversion as one of the word formation processes, Bauer (1983:226) states that conversion seems to be able to produce words from almost any form class particularly the open classes which he listed as; nouns, verbs, adjectives and adverbs. Open classes are generally lexical categories in the stricter sense, containing words with greater semantic content, while closed classes are normally functional categories, consisting of words that perform essentially grammatical functions. Reduplication is a common feature in kimeru words as we discussed in the earlier examples. However, in this research we focus mainly on the reduplication of the words that fall in the open grammatical class of speech in Kimeru.

Further we determine the type of reduplication and later look at how these words are reduplicated using the Morphological Doubling Theory. The following are the open classes of speech that are discussed in this research project.

3.4.1 Reduplication in nouns

According to (Schachter and Shopen: 1985), the traditional definition of nouns involved assigning the label noun' to the class of words in which occurs the names of most persons, places, and things. In this study we looked at nouns as words used to refer to people, animals, objects, substances, states, events, ideas and feelings. A noun functions as a subject or object of a verb and can be modified by an adjective. Our focus in this study was on the reduplication of different categories of nouns. We discussed these categories as follows;

3.4.1.1 Common nouns

Common nouns are generally used as names of different things around the world. Common nouns can be divided into concrete or the abstract nouns. In this section we will be looking at common nouns that are reduplicated in Kimeru. However, we noted that there are several common nouns in Kimeru which looked reduplicated but we could not establish any form of reduplication in the words. There was no root word and the reduplicant was also missing. These words did not also follow any of the MDT rules. Such are the examples listed below;

31. a. Creatures

Kirimarimu' -	'Ogre'
Nkunkuni-	'Bed-bug'
Gikirakiri –	'Cricket'
Kirere -	'Bat'
Kimemeu -	'Caterpillar'
Ncikanciki-	'a small wild animal that moves by jumping'
Ncincigiri –	'Chirping bird'

a. Plants

Ntaratare -	'Strawberry'
Kibabai -	'Paw paw'
Nyanya –	'Tomato'
Mpempe -	'Maize'
Nkonko -	'Thorny weed'
Munyugunyugu -	'Black-jack'
Terere -	'Pigweed'

b. Associated with people

- Mukumbukumbu- ‘Spinal cord’
- Karakara - ‘Soft palate’
- Macurucuru - ‘The white substance that forms in the eyes’
- Ncancamo - ‘Vaccine’
- mumaramari - ‘a prostitute’
- nkonankone - ‘ the source/ the edge. (E.g of a joint)’
- Baba – ‘Father’

c. Other things

- Mwindindi - ‘A bone’
- Makobokobo - ‘gumboots’ (onomatopoeic)
- Iguruguru – ‘Rooftop
- Ngorogoro - ‘Thunder’

The above words appear to be reduplicated although we could not establish the reduplication. We noted that these words are pseudoreduplicated. Pseudoreduplication will be discussed in chapter four of this research project. Other cases of reduplication in Kimeru common nouns are given in the examples below. Some examples are also put in sentences because they can only be understood in a certain context. Reduplication of Kimeru common nouns take total reduplication as shown in the following examples;

32. Noun

reduplicated form

a. Muntu- ‘a person’

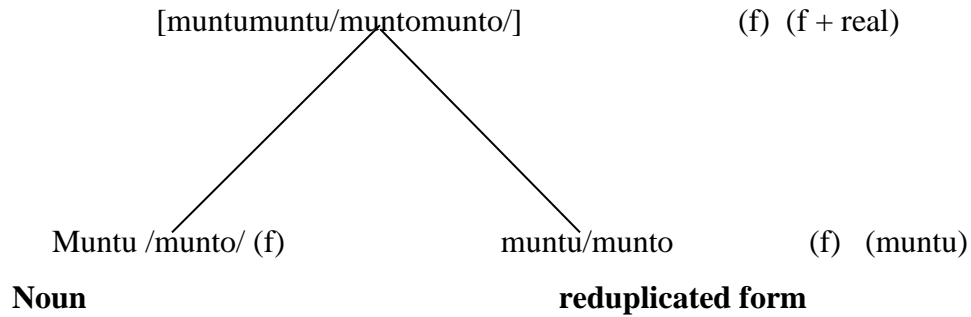
Muntu-muntu – ‘a real person’

An example in sentence form showing the same word is as follows;

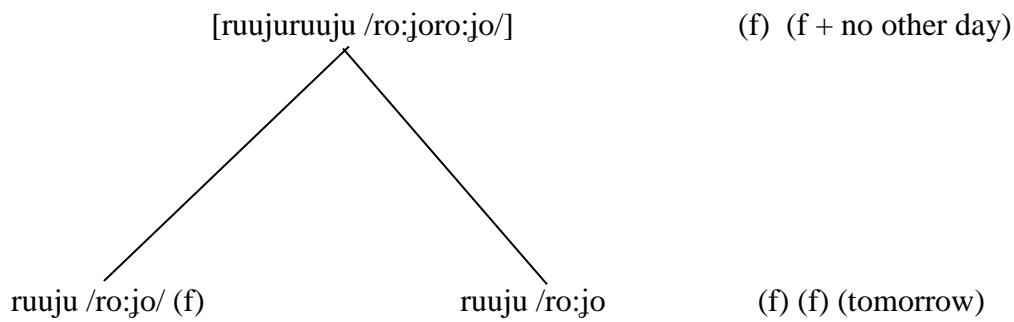
Uria i muntuthat is a person.

Ee muntu..... You mean a person?

Muntu muntu..... A real person



- b. Ruuju - 'tomorrow' Ruujuruuju (tomorrow and no other day)
 stc. Nkeja ruujuruuju..... I will come tomorrow and no other day.



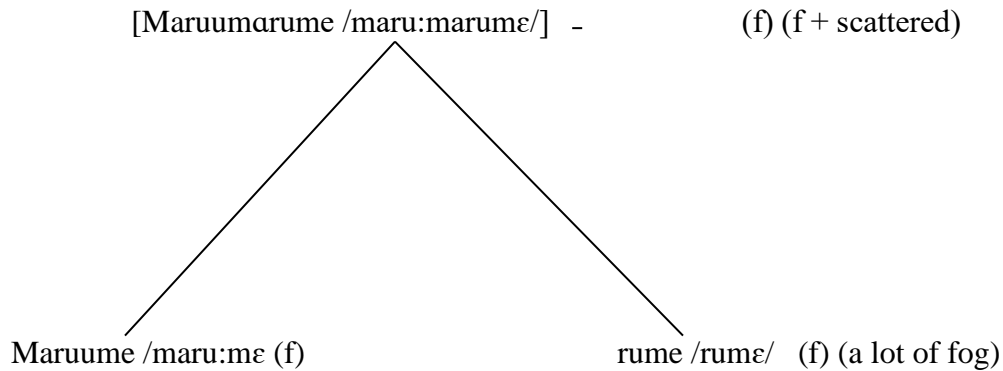
The above examples of common nouns that are reduplicated in Kimeru follow the MDT view that; morphological doubling involves a double insertion of morphological constituents that meet a particular morphosemantic description. The inputs must carry similar meaning as in the case of morphological constituent (f) above /munto/ (person) and ro:jo (tomorrow). At the same time the outputs may differ slightly in meaning with the inputs as shown in the examples /muntomunto/ (a real person) and ro:joro:jo (no other day but tomorrow).

Other examples include;

- | | |
|-------------------------|-----------------------------|
| Noun | reduplicated form |
| c. Gaciu- 'a knife' | Gaciu-gaciu- 'a real knife' |
| Stc. wauga gaciu? | Did you say a knife? |
| li gaciu-gaciu..... | Yes a real knife. |

An example of an abstract noun may include;

- c. Nduume -fog (maruume – a lot of fog)
 Maruumaruume- a lot of scattered fog (reduplicated form)



The word nduume /ndu:me/ above is an example of abstract common nouns that take partial reduplication. The example also follows the MDT view that, reduplication involves bringing together two stems that meet the same morphosemantic description which may be having some phonological modification. However, this example does not need a particular context to be understood. We found out that most common nouns take total reduplication. So the example above is a rare form of partial reduplication in common nouns.

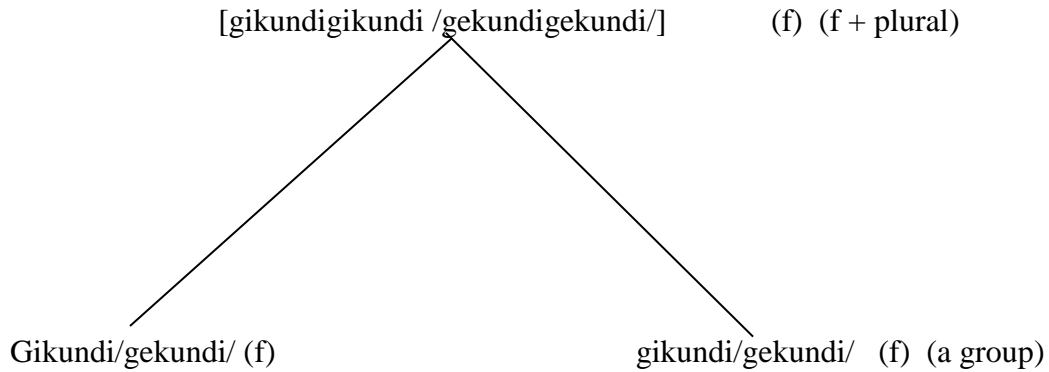
3.4.1.2 Noun in groups

There are some nouns in kimeru which are represented in groups. We looked at reduplication of these nouns as shown in the following examples;

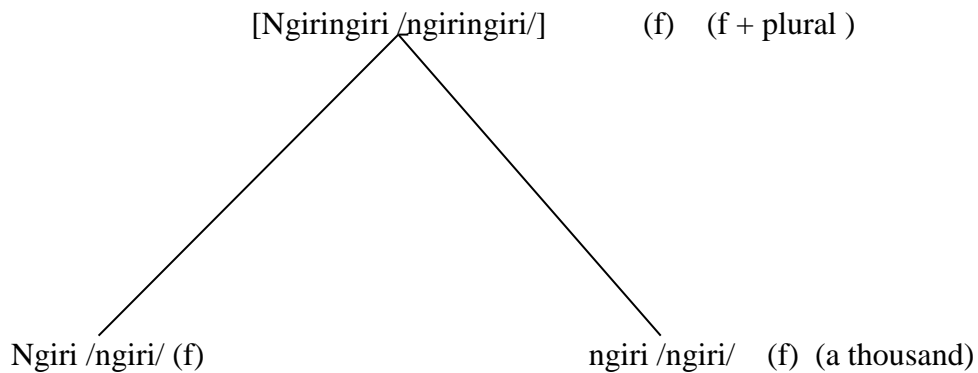
33. Word	reduplicated form
a. Gikundi - a group	gikundigikundi - in groups
b. Kithumba - a heap	kithumba kithumba - in heaps.
c. Igana - a hundred	iganaigana - in hundreds
d. Ngiri - a thousand	ngiringiri - in thousands

All the examples above show full reduplication. They follow the MDT's approach to reduplication of the stem.

Morphological Doubling Theory states that the morphological constituents that are doubled are equal semantically (agree in their meaning). For instance, the word /gekundi/ as shown in the example below:



The inputs are equal in meaning (a group), the output share close to similar meaning too although with added information; that the reduplicated words are in groups or in plural. This applies to all other words in this class of nouns. The same case applies to all other examples given above. The reduplication is also used to mark plurality as shown in the following example;



In the example above input /ngiri/ is doubled resulting to a full reduplication. The output which is the reduplicated word portrays plural of the input (reduplicant) ngiri /ngiri/. We also noted that plurality in this category must be marked only in the case of words in a group. It cannot be used as plural for all other Kimeru nouns in different categories.

3.4.2 Reduplication in adjectives

An adjective is a part of speech which describes, identifies, or quantifies a noun or a pronoun. So basically, the main function of an adjective is to modify a noun or a pronoun so that it will become more specific and interesting. Adjectives can be defined simply as, words that describe nouns. As we discussed in chapter two, there are different classifications of adjectives. In this

chapter we looked at reduplication of adjectives in Kimeru words basing on these classifications; adjectives of quality, adjectives of quantity and demonstrative adjectives.

3.4.2.1 Adjectives of quality /Descriptive Adjectives

Quality adjectives in Kimeru are those adjectives that describe a noun or a noun phrase.

34. For example, mwari umuthongi (a beautiful girl). In this case muthongi (beautiful) is the adjective which qualifies or describes the noun mwari (girl). The following are examples of quality adjectives which are reduplicated.

35. Quality adjective	reduplicated form
a) Gikinene - big. Giti gikinene - a big chair	Gikinenanene -bigger Giti gikinenanene -A bigger chair
b) Muthongi – beautiful Mwari umuthongi - a beautiful girl	Muthongathongi - more beautiful Mwari umuthongathongi - a more beautiful girl
c) Injega –good Ngari injega - a good car	Injegaega - better Ngari injegaega - a better car

The examples above show that the reduplicated form of quality adjectives results into the comparative form of the rootword. For instance, muthongi /muðɔŋgi/ becomes muthongathongi /muðɔŋgaðɔŋgi/ and injega /enɟɛɾa/ becomes injegaega /enɟɛɾaɛɾa/. At the same time these adjectives take partial reduplication as shown in the further examples given below;

d) Muraaja-tall	muraajaraja- taller
e) Muceke - thin	mucekaceke - thinner

We noted that the adjectives of quality take suffixal reduplication where the final part of the word is reduplicated.

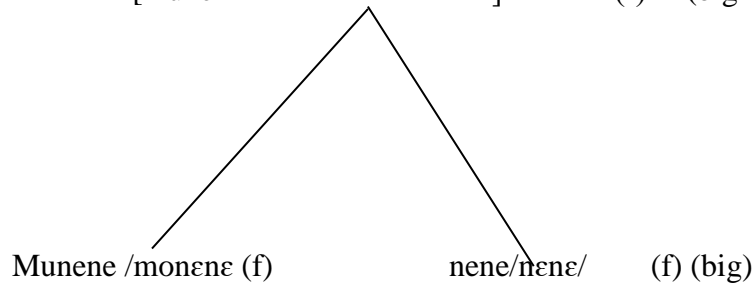
We further found out that before reduplication the last vowel in the root word changes to the vowel /a/ incase it is any other vowel apart from /a/ as shown in the examples; muceke /mosekɛ/ becomes muceka + ceke forming the reduplicated adjective; mucekaceke /mosekasɛkɛ/.

Other examples may include;

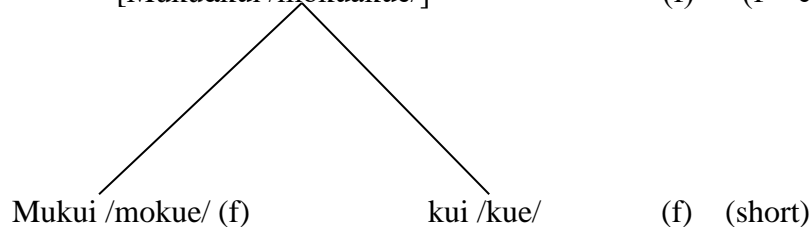
- f) Njiru- dark becomes njira+iru forming the reduplicated form njirairu (darker)
- g) Njeru - bright becomes njera + eru forming the reduplicated word njeraeru (brighter)

However, the words that end with the vowel /a/ do not change in their reduplicated form when forming comparatives. The words remain the same. As seen in the words muraja /moraja/ (tall) which becomes murajaraja /morajaraja/ (taller) and njega (good) which becomes njegaega /enjɛɾaɛɾa/ (better). At the same time reduplication of these words follows the MDT's approach to reduplication of the stem; that morphological doubling results from double insertion of morphological sub-constituent, which meets a particular morphosemantic description and which may be having some phonological modification. As shown in the following examples;

h) [munenɛnɛne /monɛnɛnɛnɛ/] (f) (big+comparative)



i) [Mukuakui /mokuakue/] (f) (f + comparative)



In the above examples the morphological constituent munene /monɛnɛ/ (big) and mukui /mokuɛ/ short and subconstituents nene /nɛnɛ/ and kui /kue/ that are reduplicated agree on their semantic description. The output also agrees in meaning with the inputs although with some added information.

3.4.2.2 Adjectives of quantity

Quantity adjectives in Kimeru show the quantity or the number of nouns present in the sentence. They answer the question ‘How much? Or ‘How many?’

36. For instance, Kwina aari bathatu nyomba (There are three girls in the house). The word bathatu ‘three’ signifies the quantity or number of girls in the room.

Kimeru adjectives of quantity are reduplicated as shown in the following examples.

37. Root word	root+reduplicant	reduplicated form
Rurwingi - a lot	Rurwinga + ingi	Rurwingaingi - more
Tuniini - small ones	Tuniina+nini	Tuninaniini - Smaller ones
Tutukai -a few ones	Tutuka-a+ kai	Tutukaakai - Fewer

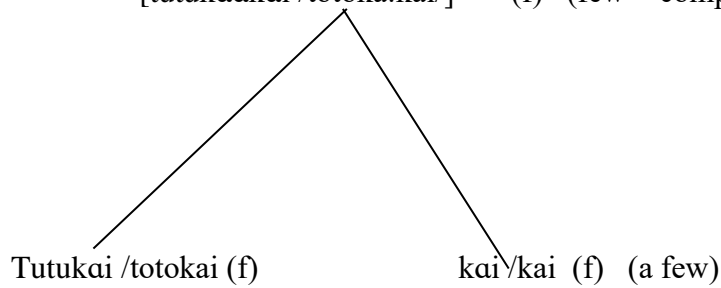
Following the examples above we found out that just as quality adjectives quantity adjectives are reduplicated to form the comparative form of the adjective given. At the same time the quantity adjectives are partially reduplicated portraying similar characteristics with quality adjectives; that of suffixal reduplication. The base of the root word is reduplicated as shown in, tuniini /toni:ni/ (small ones) the final part of the root word is niini /ni:ni / therefore the reduplicated form becomes tuninaniini /toni:nani:ni/ (smaller ones).

We further found out that during reduplication the root word in the quantity adjective loses the last vowel and it is replaced with another vowel /a/ putting it in its comparative form.

38. Rootword	root+reduplicant	reduplicated form
Inyingi –many	Inying-a+ingi	Inyingaingi –more

Reduplication of quantity adjectives follows the view of MDT’s approach to reduplication that morphological doubling result from double insertion of morphological sub-constituent, which meets a particular morphosemantic description and which may be having some phonological modification. As shown in the next example;

39. [tutukaakai /totoka:kai/] (f) (few + comparative)

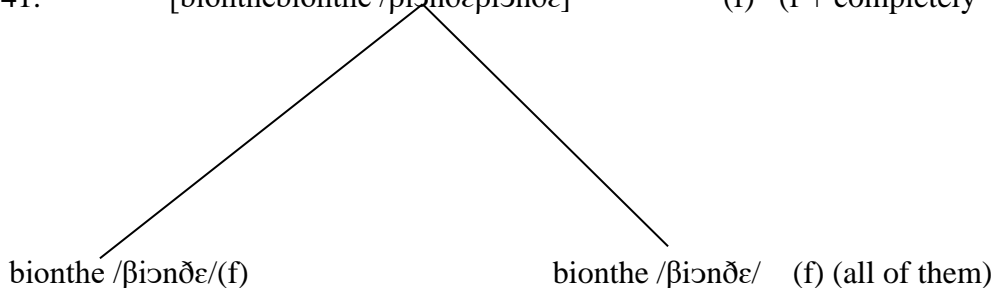


All the examples above show partial reduplication in quantity adjectives. However, there is an exception in very few cases where the quantity adjectives take full reduplication. In that case the reduplicated form does not form comparison. The following is an example of full reduplication in quantity adjectives;

40. Root word	root+reduplicant	reduplicated form
Cionthe (all)	cionthe+cionthe	cionthecionthe (completely all of them)

We realised the full reduplication in the above example does not give the comparative form but emphasises on the involvement of all the nouns being quantified (all of them with nothing left). So we treated this as a rare case of reduplication of quantity adjective. Reduplication of the quantity adjectives can be represented in the MDT theory which involves double insertion of morphological constituents that share meaning as shown in the following example;

41. [bionthebionthe /βιονθεβιονθε] (f) (f + completely)



3.4.2.3 Demonstrative adjectives

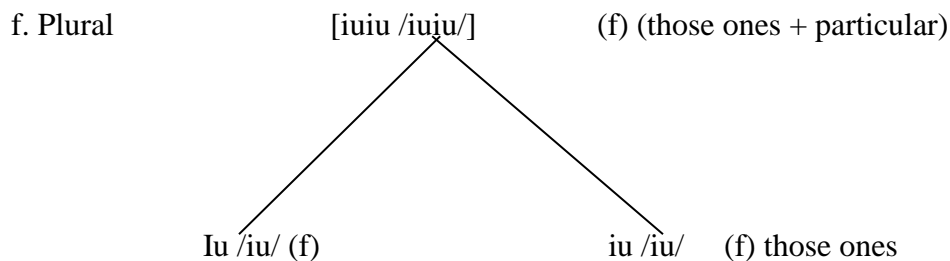
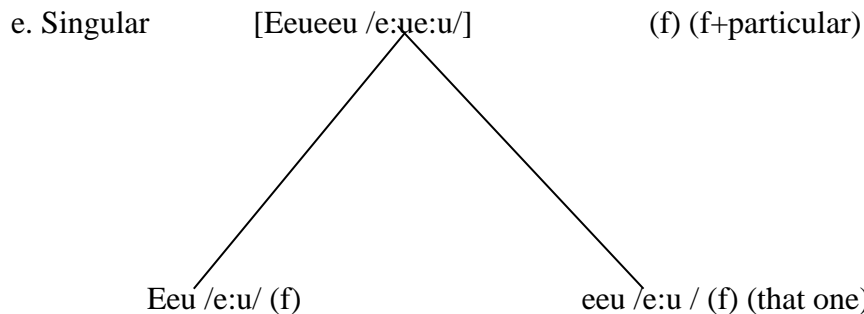
Demonstrative adjectives are used to point out specific things. They include; this, that, these and those. Reduplication occurs in Kimeru demonstrative adjectives in order to show emphasis as will be discussed in chapter four under the functions of reduplication. The following are examples showing reduplication in Kimeru demonstrative adjectives.

42. Root word

reduplicated form

- | | |
|--------------------------|-------------------------------|
| a. Eeje (sing) -this one | eejeeje - this particular one |
| b. Iji (pl) - these ones | ijiji -these particular ones |
| c. Eeu (sing) - that one | eeueeu - that particular one |
| d. Iu (pl) - those ones | iuu - those particular ones |

In these given examples, the reduplicant is similar to the root word showing a case of full reduplication. The full reduplication explains that it is a particular noun that is being referred to by the demonstrative adjective and no other. We found out that Kimeru Demonstrative adjectives follow the MDT theory view that the morphological constituents that are doubled are equal semantically as shown in the following examples.



We noted that the inputs for the first example *eeu* /e:u/ (that one) share similar meaning.

At the same time these inputs share close to similar meaning with the output *eeueeu* /e:ue:u/ (that particular one) although with added information in this case specifying that particular noun and no other. The same case applies to the plural form which given in the example above. The inputs *iu* /iu/ (those ones) also share meaning with the output which the reduplicated word *iuuiu* /iu:iu/ (those particular ones) although with some added information; suggesting those particular ones and no other. The same case applies to all other examples of demonstrative adjectives given above in their singular and plural forms.

3.4.3 Reduplication in verbs

Kimeru verbs can be defined as words that are used to describe an action, state or occurrence and forming the main part of the predicate of a sentence.

43. For instance; *mwekuru nakwaanda mpempe* (the lady is planting maize) the verb in the sentence is *kwaanda* /kwa:nda/ which is the action of planting. We noted that reduplication also occur in Kimeru verbs which are part of the open categories of speech. Kimeru verbs take both full and partial reduplication. The following examples show full reduplication in Kimeru verbs;

Full reduplication

44. Root word

a. *ina* - sing

b. *Ita* - Go

c. *Rita* –Remove

d. *Tuura*- Pour

e. *Ringa* – Beat

f. *Kara*- stay

reduplicated word

inaina- sing a bit more

itaita - Move a bit further away

ritarita – Remove for a longer period of time

tuuratuura - Pour a bit more

ringaringa - beat more

karakara - stay longer

Following the above examples, we found out that full reduplication in verbs shows that an action is done for a longer period of time or an action that is done more than the normal action. For instance, from the examples given above, *Ina* /ina/ means to sing while *inaina* /inaina/ means to sing more. Reduplicated verbs can be more meaningful when used in a certain context. The following examples show reduplicated verbs put in sentence form;

g. Kara (stay)

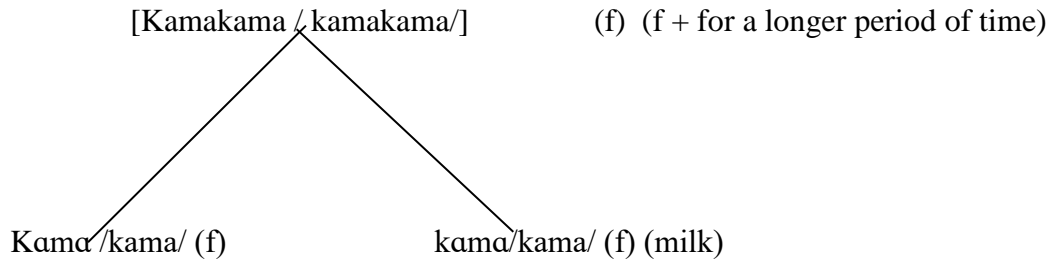
Ngakara aja - I will stay here ngakarakara aja - I will stay here longer.

h. Ruma (bite)

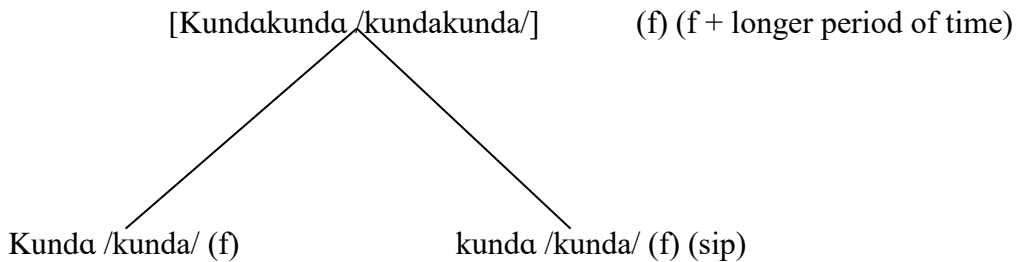
Ruma kiembe giki - bite this mango rumaruma kiembe giki - keep biting this mango

Full reduplication of Kimeru verbs follows the MDT theory that; morphological doubling results from double insertion of morphological constituents and that these constituents meet a particular morphosemantic description. In this case the verbs show that the action is done for a longer period of time. The following examples show the application of MDT theory in full reduplication of Kimeru verbs.

i. Kama (milk)



j. Kunda (sip)



The inputs; kama /kama/ (milk) and kunda /kunda/ (sip) carry the same semantic meaning with their outputs kama kama /kamakama/ (milk more) and kunda kunda /kundakunda/ (sip more.) However, both outputs get a bit of additional information that; the action is done for a longer period of time. We later looked at partial reduplication in Kimeru. The following examples show partial reduplication in Kimeru verbs.

45. Root word

- a. Nenea - grow
- b. Thungutha - jump
- c. Andika - write
- d. Rungama - stand
- e. Ikira - put

reduplicated word

- nenanenea - grow more
- thungathungutha - jump more
- andaandika - write more
- rungarungama - stand for a longer period of time
- ikaikira - put more

From the above examples we noted the presence of partial reduplication of the Kimeru verbs. Here, the initial part of the root or the prefix is reduplicated. This is called prefixal reduplication. Just as in full reduplication, partial reduplication shows an action that happens for a longer period of time. Following the above examples, we also found out that the prefix which is the reduplicant loses its last vowel if it ends with any other vowel that is not /a/, if so then the vowel is replaced with the vowel /a/. This happens in these Kimeru words to ease articulation.

In another example given Nenea /nɛnɛa/ (grow) the prefix representing the reduplicant is supposed to be nene- /nɛnɛ/ but it is presented as, nena- /nɛna/ and the reduplicated word is nenanenea /nɛnanɛnɛa/ (grow a bit more). However, for the reduplicants that end with the vowel /a/ like rungama /roŋama/ the prefix is runga-/roŋga/ and when reduplicated it becomes rungarungama /roŋgaroŋgama/ the vowel does not change.

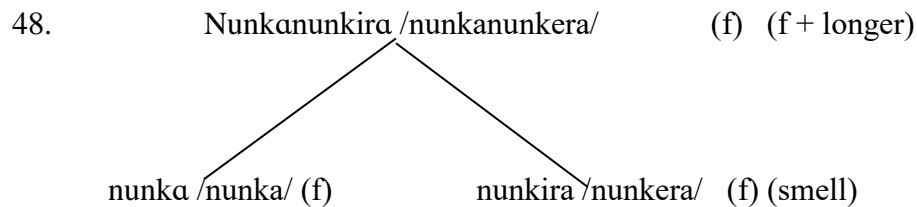
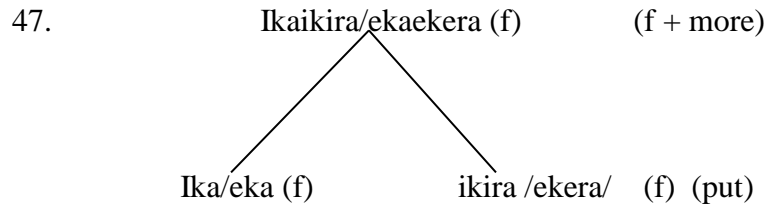
The following are examples showing Kimeru verbs partially reduplicated;

46. a. Ongerai cai - add some tea ongaongerai cai- add some more tea.

b. Mbetera, I mbijite - wait for me, I am coming

Mbetaetera I mbijite - wait for me a little longer, I am coming.

Just as the full reduplication, partial reduplication follows the MDT theory view that; reduplication involves bringing together two stems that meet the same morphosemantic description which may be having some phonological modification as shown in the following examples:



(Laughton .W.H. 1994)

3.4.4 Reduplication in Kimeru adverbs

In Kimeru, adverbs are used to modify verbs. They describe how, when, where, and how often something is done.

49. For instance, mpwi (quickly), mpaara (slowly). In this section we looked at reduplication of different types of adverbs as shown below;

3.4.4.1 Adverbs of place

Kimeru adverbs of place provide information or tell us where something happens. They include; aria /area/ (there) and nau /nau/ (anywhere) among others that we shall discuss in this chapter. Adverbs of place in English language are usually placed after the main verb and the same case applies to Kimeru. We found out that the adverbs of place in Kimeru take full reduplication where reduplicant is similar to the root word. The following are examples of full reduplication in Kimeru adverbs of place.

50. Root words

a. Aja – here

b. Kunthe – everywhere (in a specific place) kunthekunthe – everywhere (no specific place)

c. Ndeene – inside

reduplicated words

ajaaja – exactly here (no other place)

ndeenendeene – deep inside

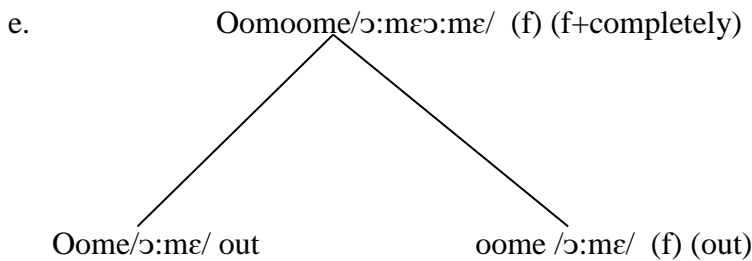
The examples above show full reduplication as used in the Kimeru adverbs. We gave some examples in sentence form as follows.

d. Ita kaja - go outside ita kajakaja - go outside completely.

d. Njoka igutonya ndeene ya kirinya - the snake has gone inside the hole.

Njoka igutonya ndeenendeene ya kirinya - the snake has gone deep inside the hole.

We also found out that each reduplicated adverbs of place had its own meaning and no shared or general meaning as in the case of adjectives. We noted that, adverbs of place are reduplicated according to the MDT view that, the morphological constituents that are doubled meet a particular morphosemantic description as shown in the example given below;



From the example given both inputs share the stem oome /ɔ:mɛ/ and at the same time share the meaning (out). The inputs also are similar in meaning with the output oomeoome /ɔ:mɛɔ:mɛ/, although the output has an added information (completely). However, both the inputs and the output remain in the class of adverbs, hence the MDT view that the mother (output) shares the same function and meaning with the daughters (inputs).

3.4.4.2 Adverbs of Manner

Kimeru adverbs of manner provide information on how someone does something. They are also referred to as quality adverbs.

51. For example; buuthuku (badly) bubwega (well).

Naiji gwitithia ngaari bubwega - She knows how drive the car well.

We noted that adverbs of manner in Kimeru take both full and partial reduplication.

The examples below show full reduplication of Kimeru adverbs of manner.

Full reduplication

52. Root word

- a. Kaora - slowly
- b. Mpwi - quickly
- c. Nainya – loudly

reduplicated word

- Kaorakaora - slowly by slowly (with coordination)
- Mpwimpwi - Very quickly (haphazardly)
- nainyanainya – very loudly (extreme)

An example in sentence form can be;

- d. Mpwimpwi iti kitharimo – (Hurry hurry has no blessings) a common saying in Kimeru translated as; doing things haphazardly does not give good end results.

From the above examples we noted that fully reduplicated adverbs of manner portray different meanings. While kaorakaora /kaɔːrakaɔːra/ means slowly by slowly with coordination and order, mpwimpwi /mpwempwe/ on the other hand means so quickly haphazardly and chaotically. We later looked at partial reduplication as used in the adverbs of manner. We noted that the reduplicants appear word finally or as a suffix. This is called suffixal reduplication. The following examples show partial reduplication in Kimeru adverbs of manner;

Partial reduplication

52. Root word

- a. Bubwega – well
- b. Buuthuku - badly
- c. Buutaku – disgustingly
- d. Kaora – slowly

reduplicated word

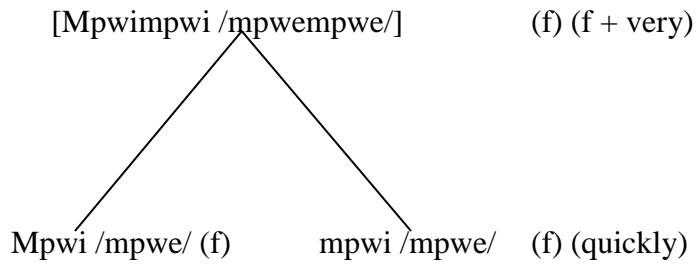
- bubwegaega - better
- buuthukathuku – worse
- buutakataku – more disgustingly
- kaoraoora – more slowly

Following the examples above, we noted that partial reduplication in Kimeru adverbs of manner, shows how an action is done but for a longer period of time. We also found out that during reduplication the root word that does not end with the vowel /a/ loses its final vowel and it is replaced with /a/ for easier articulation. For instance the root word, buuthuku /βoːðoku/ (badly) becomes *buthuka* before adding the prefix *-thuku* so that the reduplicated adverb becomes *buthukathuku* /βoː ðokaðoku/ (worse). However, when the root word ends with a vowel /a/ then it remains the same even after reduplication.

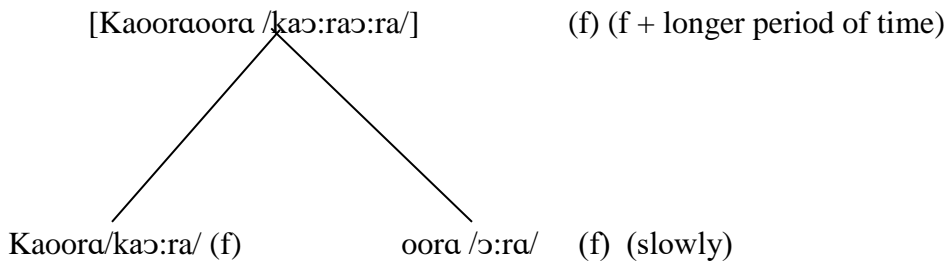
For instance, *bubwega* /βoβwεxa/ (well) remains *bubwega* before adding the suffix *-ega* /-εxa/ to give the reduplicated word *bubwegaega* /βoβwεxaεxa/ (better).

Despite the difference in meaning with the partial and full reduplication, we found out that they both follow the MDT view that, morphological doubling results from double insertion of a morphological constituent or subconstituent (in this case suffix). These constituents and subconstituents meet a particular morphosemantic description. The following examples illustrate the application of the MDT on adverbs of manner.

53. a. Full reduplication



b. Partial reduplication



We found out that the adverb *kaooora* /kaɔ:ra/ takes both partial and full reduplication. However, we noted that after reduplication the word acquires a different meaning and function. For instance in full reduplication; it becomes *kaorakaooora* /kaɔ:rakaɔ:ra/ meaning slowly by slowly while after partial reduplication the adverb becomes *kaoooraooora* /kaɔ:raɔ:ra/ an action done meaning more slowly.

3.4.4.3 Adverbs of Degree

Adverbs of degree in Kimeru provide information concerning how much of something is done. 54. For instance, buru – completely. We found out that words in the Kimeru adverbs of degree take full or total reduplication as shown in the following examples.

Full reduplication

55. Root word

reduplicated word

a. Buru - Complete

Buruburu - completely

b. Mono - a lot/ enough

Mono-mono - More than enough

c. Ouu – anyhow

Ouuouu – carelessly

From the above examples the rootwords show the degree in which the action is done. After reduplication the words show the degree in which the action is done but to the extreme. For instance, buru /βuru/ means completely, however, even if the reduplicated adverb buruburu /βuruβuru/ shares the meaning of ‘complete’ with the given root word the latter explains the action of completeness as to the extreme. This applies to all the other examples above. The following is an example of adverbs of degree in a sentence form;

56. a. Ujuria gikombe buru – fill the cup completely.

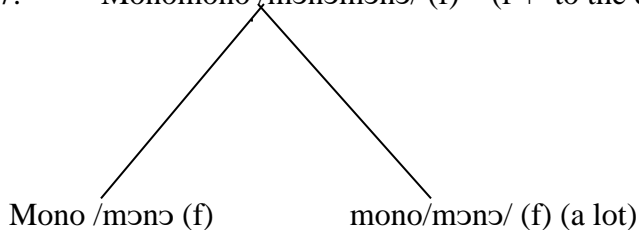
Ujuria gikombe buruburu- fill the cup completely (to the extreme).

b. Mwendete mono – I love her so much

Mwendete monomono – I love her so much (to the extreme)

The reduplicated adverbs of degree follow the MDT view that MDT involves bringing together two stems that meet the same morphosemantic description as shown below.

57. Monomono /mɔnɔmɔnɔ/ (f) (f + to the extreme)



The inputs mono/mɔɔɔ/ share meaning with the output monomono /mɔɔɔmɔɔɔ/ although the output has some added information (to the extreme).

3.4.4.4 Adverbs of Time

Kimeru adverbs of time provide information on when something happens or when an action is done.

58. For example, igoro- yesterday as in; Ndirejire igoro (I arrived yesterday), auke- the day after tomorrow, nkaana auke (I will go home the day after tomorrow).

We found out that adverbs of time are fully reduplicated as shown in the following examples;

59. Root word

full reduplication

- | | |
|-----------------------------------|--|
| a. Nandi – now | Nandinandi - Just now |
| b. Ico - The day before yesterday | Icoico - some few days ago. |
| c. Ruuju –Tomorrow | Ruujuruuju - tomorrow and no other day |

From the above examples we found out that each of the reduplicated word has its own meaning. For instance, from the examples given, while nandinandi /nandenande/ means just now showing immediacy, ruarua /ruarua/ means very recently, icoico/esoeso/ means a few days ago (not specific). However, they have the same function; they show the time an action was done. We gave some examples in sentences as follows;

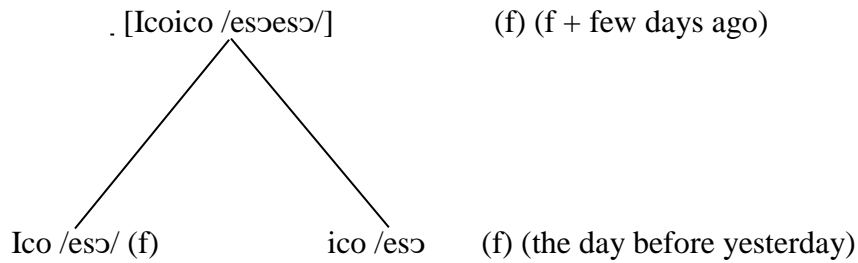
60. Stc with the rootword

reduplicated form

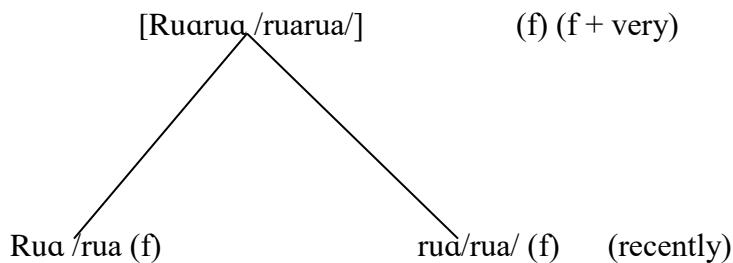
- | | |
|---|--|
| a. Ija nandi - come now. | ija nandindi - come just now (immediately) |
| b. Aciarirwe ico - she was born the day before yesterday. | Aciari icoico - she was born a few days ago. |

We also noted that reduplication of the adverbs of time follow the MDT view that, morphological doubling results from double insertion of morphological constituents which meet a particular morphosemantic description. Therefore, the two stems (inputs) involved share a meaning. While the output gets some added information to the meaning as shown in the following examples;

61. a. Ico (a few days ago)



b. Rua (recently)



3.4.4.5 Adverbs of Frequency

Adverbs of frequency in Kimeru provide information on how often something happens.

62. For instance, rimwe - once, *ngagwita rimwe aki* - I will call you only once.

We found out that frequency adverbs are fully reduplicated. The following examples show full reduplication as portrayed in the adverbs of frequency.

63. Rootword

- a. Rimwe - Once
- b. Mweri - month
- c. Ntuku - day
- d. Kiumia - week
- e. Mwaka - year

reduplicated form

- Rimwerimwe - once in a while
- Mwerimweri - monthly
- Ntukuntuku - daily
- Kiumiakiumia - weekly
- Mwakamwaka - yearly

Following the above examples, we realised that reduplication of adverbs of frequency show adverbs that happen at a given regular period of time. This can be monthly, yearly or even daily as shown in the following sentences;

64. a. Twendetie nyomba imwe mwaka juju- we have sold one house this year.

Twendagia nyomba imwe mwakamwaka - we sell one house yearly.

b. Nkamuriungira kiumia giki - I will visit him this week.

Muriungagira kiumiakiumia - I visit him weekly.

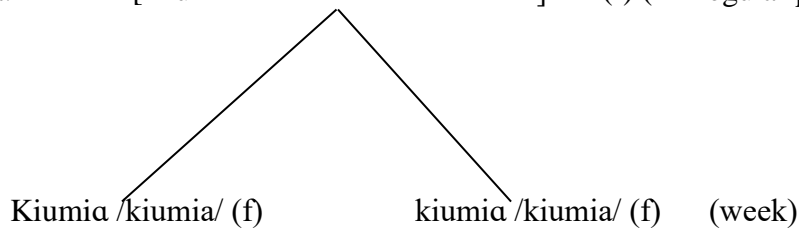
We also noted that the reduplicated adverbs of frequency come from the root words which are in the class of nouns.

65. For example, Kiumia - a week (noun) reduplicated to kiumiakiumia - weekly (adverb),

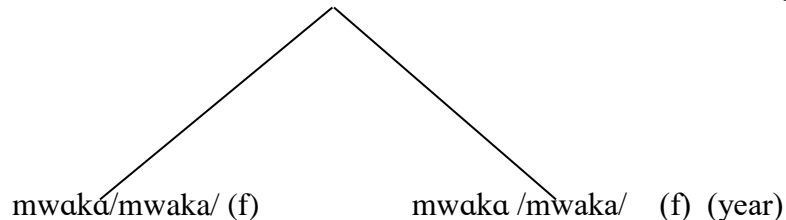
ntuku – a day (noun) becomes ntukuntuku – daily (daily) same case applies to all the other examples given.

We found out that reduplication of frequency adverbs follows the MDT view that, morphological doubling results from double insertion of morphological constituent with the same morphosemantic description. However, the inputs and the outputs have a different class. The following illustrations show the MDT representation of frequency adverbs.

66. a. [Kiumiakiumia /kiumiakiumia/] (f) (f + regular period of time)



c. [Mwakamwaka /mwakamwaka/] (f) (f + a regular period of time)



3.5 Conclusion

In this chapter, we looked at reduplication in Kimeru. We focused on full and partial reduplication. Under partial reduplication, we discussed prefixal and suffixal reduplication citing relevant examples from Kimeru language. Later on we looked at reduplication in the open categories of speech in Kimeru. We noted that reduplication occurs in various ways in classes of nouns, adjectives, verbs and adverbs. We also found out that in the class of nouns, common nouns have some words that look as if they are reduplicated but do not have syllables that are repeated and at the same time there is no root word. So technically we concluded that there is no reduplication or if there is, then it is hidden reduplication. We referred to this as pseudoreduplication. We discuss pseudoreduplication in the in details in chapter four of this research project. We also found out that some reduplicated words needed to be fitted in a certain context in order to make sense, in such occasions we used examples in sentence form to clarify the meaning. We also noted that all these open categories of speech follow different views of MDT as cited by Inkelas and Zoll (2005). We discussed these views differently giving examples in each category.

4.0 CHAPTER FOUR: FUNCTIONS OF REDUPLICATION AND INTRODUCTION TO PSEUDOREDUPPLICATION IN KIMERU.

4.1 Introduction

In chapter three we looked at the reduplication in the open categories of speech in Kimeru words. In these categories, we noted that reduplication is realised differently and that the reduplicated words had different functions in Kimeru language. Therefore, in this chapter we focused on the different functions of reduplication in Kimeru. We also noted previously that common nouns in Kimeru had words which seemed to be reduplicated yet they really were not reduplicated. We called this pseudoreduplication. We will further look into the details of pseudoreduplication in this chapter giving relevant examples. Later on we focus on the reduplicated phrases in Kimeru giving relevant examples and meanings.

4.2 General functions of reduplication in Bantu languages

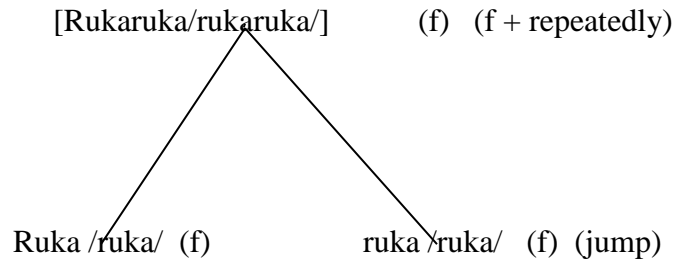
According Abdulaziz reduplication is a common phenomenon in Bantu languages and it is employed to form either a frequentative or Diminutive verb. Frequentative denotes that action is done repeatedly. (Abdulaziz 2002:8) To further explain his view on frequentative nature of reduplication in Swahili Abdulaziz gave the following example;

67. The reduplicated word	the meaning
a. Pigapiga	strike repeatedly.
Other examples reduplicated in Swahili include the following;	
b. Chezacheza	dance repeatedly
c. Imbaimba	sing repeatedly
d. Rukaruka	Jump repeatedly
e. Bebabeba	Carry repeatedly/ many time

From the above examples we noted that the stem (piga) which means strike when reduplicated becomes (pigapiga) meaning strike repeatedly. We further noted that the input piga shares a semantic description with the reduplicated output pigapiga only that the output has some added information, in this case that the action is done repeatedly.

The same case applies to other examples given above fulfilling the MDT view that, morphological doubling, results from double insertion of constituents which meet a particular morphosemantic description. This is illustrated in the following example;

68. Ruka (jump)



On the other hand, the diminutive denotes a diminution or reduction of intensity.

On diminutives, Abdulaziz gave the following examples of Zulu and Swahili words;

69. Zulu:

Bona (See)

Bonabona (See somewhat)

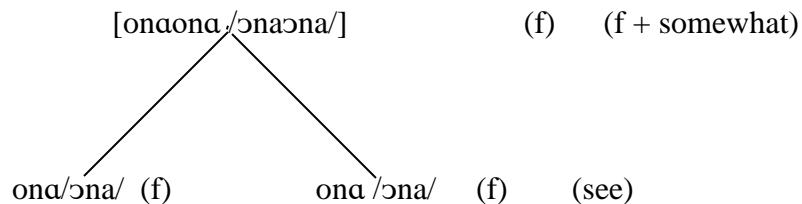
70. Swahili

Ona (See)

Onaona (See somewhat)

Just as in the case of frequentative, the diminutive nature of reduplication shows a semantic relationship between the stems of the reduplicated word. For instance, in the case of Swahili example *ona /ona/* which means see when reduplicated it becomes *onaona /onaona/* meaning see somewhat. The output *onaona* gets added information (somewhat) while the inputs share a similar meaning (see). These examples are also supported by the MDT view that, morphological doubling involves double insertion of morphological constituents which meet a particular morphosemantic description as shown in the illustration below;

71.



Later Abdulaziz refers to diminutive as subtractive.

4.3 FUNCTIONS OF REDUPLICATION IN KIMERU

4.3.1 For emphasis

Reduplication in Kimeru denotes words which require special weight or forcefulness, showing something important. The following are examples of some words which are reduplicated to show emphasis in Kimeru.

72. Rootword	reduplicated form
a. Aja (here)	ajaaja (right here nowhere else)
b. Riitwa (a name)	riitwariitwa (a real name)
c. Yongwa (the exact one)	yongwayongwa (exactly the same one and none other)
d. Muti (a tree)	mutimuti (a real tree)
e. Mono (much)	monomono (very much)
f. Buru (complete)	buruburu (completely)

From the above examples we noted that the root words come from different classes of words. For instance, basing on the examples above, while *aja* is an adverb of place, *ritwa* is a noun and *buru* is an adverb of degree. We also noted that when these words are reduplicated they put more emphasis on the semantic value of the root word. The following examples show the reduplicated words used in sentences to show emphasis;

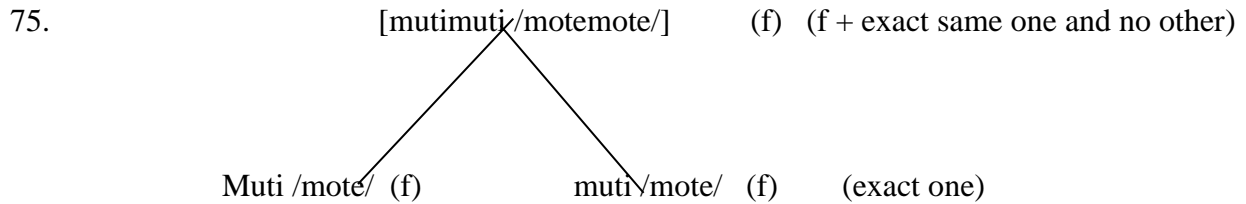
73. a. Ika gikombe aja (keep the cup here). Gike ajaaja (keep it right here and nowhere else)
b. Jukia giti giki (take this chair). jukia giti gikigiki (take exactly this chair and none other)
- d. Kana gaka koragi I muntu (this child was murdered by a human being).
Kana gaka koragi I muntumuntu (this child was murdered by a real human being and nothing else) e.g. not by an animal.

We also found out that from our examples most words used to show emphasis are fully reduplicated. However, there are few exceptions that take both total and partial reduplication to show emphasis. The following example shows both partial and full reduplication used to show emphasis on the word *yongwa* /jɔŋgwa/

74. Yongwa (the exact one) yongwa yongwa / yoyongwa (the exact one and no other)

Yongwa /jɔŋgwa/ (the exact one) can be reduplicated fully as yongwayongwa /jɔŋgwayɔŋgwa/ (the exact same one and no other) or partially as yoyongwa /jɔjɔŋgwa/ which means basically the same thing (exact same one and no other).

The following example shows the MDT approach to the reduplication of stems for emphasis.



From the example above both the inputs have a similar semantic description. The word muti /mote/ meaning a tree is reduplicated to form mutimuti /motemote/ which means a real tree (nothing else but a tree). Basically the key meaning is a tree although when it is reduplicated it puts more emphasis on the root word. As a result, these Kimeru words give special attention or prominence to the message intended.

4.3.2 For comparison

Reduplication is used in Kimeru adjectives to show comparison. The adjective used for comparison must have the final vowel as /a/ before reduplication.

However, if the final vowel in the word is not /a/ then the adjective loses its final vowel and replaces it with a vowel /a/ before the reduplicant. Therefore, the vowel /a/ can be taken as a comparative marker for adjective in Kimeru grammar.

The following are examples adjectives reduplicated to show comparative form of adjectives.

76. a. Gikinene (large one) Gitambaa giki igikinene (this is a large piece material)
 Gikinene + nene = gikinenenene Gikinen(a)nene → gikinenanene
 Gitambaa giki igikinenanene (this is a larger piece of material)

b. Umuiru (dark one) Muntu umuiru (a dark person)
 Umuiru+ iru = umuiruiru Umuir(a)iru → umuirairu
 Muntu uju nuumuirairu nkuruki yakwa (this person is darker than me)

The above examples present adjectives whose final vowel is not /a/ but can be any other vowel.

However, if the adjectives are ending with the vowel /a/ then it does not change during reduplication. The vowel for the root word remains. The following examples show what happens during the reduplication of adjectives with /a/ as their final vowel.

c. Umuraaja (a tall one)

Muntu uria nuumuraaja (that person is tall) Umuraaja + raja = umuarajaraja

Muntu uria nuumuraajaraaja (that person is taller)

From the above examples we noted that all the adjectives are partially reduplicated. They take suffixal reduplication. We also found out that during reduplication those words that end with a different vowel which is not /a/, whether these vowels are high or low vowels then this final vowel changes to /a/. After reduplication the adjectives change to comparative form. Therefore, we looked at the vowel /a/ in this case as the comparative marker in Kimeru adjectives.

The following is a presentation of adjectives with a comparative marker;

Base + CVCV

77. Adjectives

reduplicated form

a. Gikinene (a big one)

gikinenanene (a bigger one)

Giti gikinene (a big chair)

Giti gikinenanene (a bigger chair)

b. Jumuthuku (a bad one)

jumuthathuku (a worse one)

Murimo jumuthuku (a bad illness)

Murimo jumuthukathuku (a worse illness)

c. Jumuceke (a thin one)

jumucekaceke (a thinner one)

Muriigi jumuceke (a thin rope)

Muriigi jumucekaceke (a thinner rope)

d. Gikiraaja (a tall one)

gikiraajaraaja (a taller one)

Giciko gikiraaja (a long spoon)

Giciko gikirajaraaja (a longer spoon)

e. Umuremu (a naughty one)

umuremaremu (a naughtier one)

Mwiji umuremu (a naughty boy)

Mwiji umuremaremu (a naughtier boy)

78. Base + CVV

a. Jumukui (a short one)

jumukuakui (a shorter one)

Muti jumukui (a short tree)

Muti jumukuakui (a shorter tree)

79. Base + VCV

- | | | |
|----|-------------------------------|------------------------------------|
| a. | Gikiiru (a dark one) | gikiirairu (a darker one) |
| | Gikombe gikiiru (a black cup) | Gikombe gikiirairu (a blacker cup) |
| b. | Injeru (a new one) | injeraeru (a newer one) |
| | Nguo injeru (a new dress) | nguu injeraeru (a newer dress) |

The following example illustrates the MDT approach on partial reduplication showing comparison.

80. [Muremaremu /moremaremu/] (f) (f + comparative)
-
- ```
graph TD; A["[Muremaremu /moremaremu/ (f) (f + comparative)"] --- B["Muremu /moremu/ (f)"]; A --- C["remu /remu/ (f) (a naughty one)"]
```

The two inputs share a similar semantic description while on the other hand; the output has some added information to the meaning of the inputs. Inkellas and Zoll (2005) argue that, while there is no necessary uniformity in the types of semantic function associated with the outcome of morphological doubling, there is uniformity in the inputs.

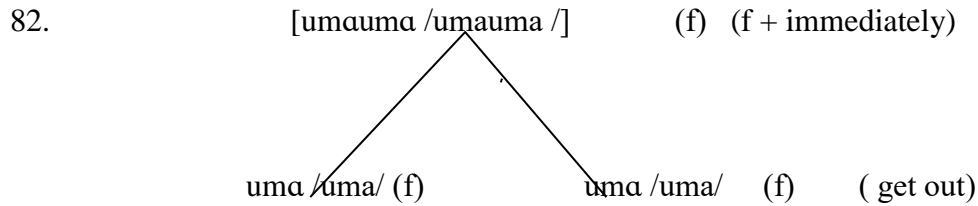
#### 4.3.3 To caution

Reduplication in Kimeru can also be used as a warning against danger, evil or anything else. We found out that the reduplication of the following words bring out the urgency or immediacy of an action.

- | <b>81. Rootword</b> | <b>reduplicated word</b>             |
|---------------------|--------------------------------------|
| a. Tiga (stop)      | tigatiga (stop immediately!)         |
| b. ita (get out)    | itaita (get out immediately!)        |
| c. Eja (come)       | ijaija (come immediately! (Urgency)) |
| d. Rete (bring)     | reterete (bring immediately!)        |
| e. uma (get out)    | umauma (get out immediately!)        |

Following the above examples, we noted that words in the category of verbs are mostly used to show caution. These verbs are also fully reduplicated.

Their reduplication is supported by MDT view that morphological doubling results from a double insertion of morphological constituents which meet a particular semantic description. We illustrated this in the following example;



From the example above the input uma /uma/ means get out, when reduplicated the verb becomes umauma /umauma/ meaning get out immediately. The new information added to the output qualifies the reduplicated word to be a warning or caution depending on the context.

#### 4.3.4 For Pluralization

Reduplication of some Kimeru words makes certain words to change from singular to plural form. Pluralization is a general function of reduplication in many languages. The following examples show how reduplication expresses plural of words in Kimeru.

The first two examples are in the class of adjectives

| <b>83. Word</b>       | <b>reduplicated form</b>               |
|-----------------------|----------------------------------------|
| a. Tuniini (a little) | Tuniinituniini (Plenty of little ones) |
| b. tutwingi ( a lot ) | tutwingaingi (a lot more)              |

The next two examples use numbers and items in groups.

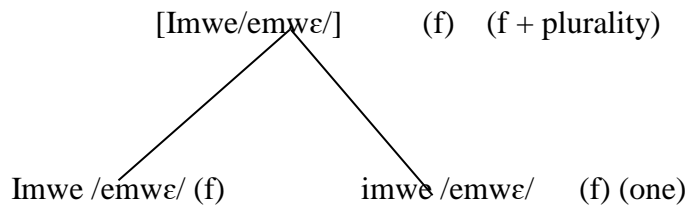
|                      |                              |
|----------------------|------------------------------|
| c. Gikundi (a group) | Gikundigikundi (many groups) |
| d. Imwe (one)        | imweimwe (in ones)           |
| e. Ijiri (two)       | Ijiriijiri (In pairs)        |
| f. Ikumi (ten)       | ikumiikumi (in tens)         |

The following examples are used to show the plural of nouns marked through reduplication

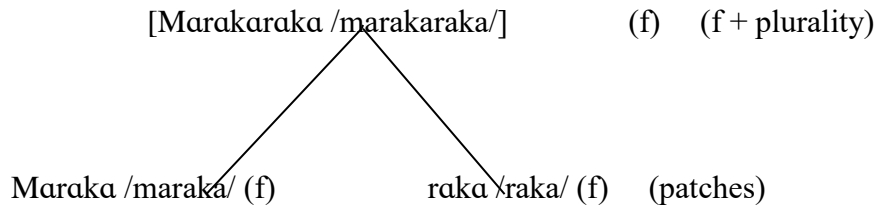
|                     |                                                        |
|---------------------|--------------------------------------------------------|
| g. Kiraka (a patch) |                                                        |
| Maraka (patches)    | Marakaraka (patches of different colours and material) |
| h. Ntanta (a drop)  | ntantantanta (scattered raindrops)                     |

We found out that the reduplicated words that result to pluralization come from different classes. For instance, while *ntanta* is a noun *tuniini* is an adjective and *imwe* is a numeral. We also found out that these words take both full and partial reduplication to show the increase in the rootword. Reduplication of the root word leading to pluralization follows the MDT view that, morphological doubling results in the double insertion of a constituent like *ntanta* /*ntanta*/ or subconstituent like *raka* /-*raka*/ (suffix) which meet similar morphosemantic description. In this case the inputs share a similar meaning and the output share the meaning but gets some added information. The following example shows an illustration of MDT view on pluralization;

**84. a. Full reduplication**



**b. Partial reduplication**



**4.3.5 Estimating distance**

Reduplication in Kimeru can be used to estimate the distance in which an object moves. It is also used to show the proximity of an item to the other. It can also show the length of the estimated distance. We found out that the said estimated distance is always meant to be a short distance and mostly towards a certain direction that is agreed upon. The following are examples of reduplicated words showing estimated distances.

**85. Rootword**

**reduplicated word**

a. Coka (go back)

cokacoka (Move back a bit)

Stc. Coka nja - Go back home.

Cokacoka nyuma - Move a little behind.

- b. Ija (come) ijaija (Come nearer)

Stc. Ija nkwire – come I need to tell you something.

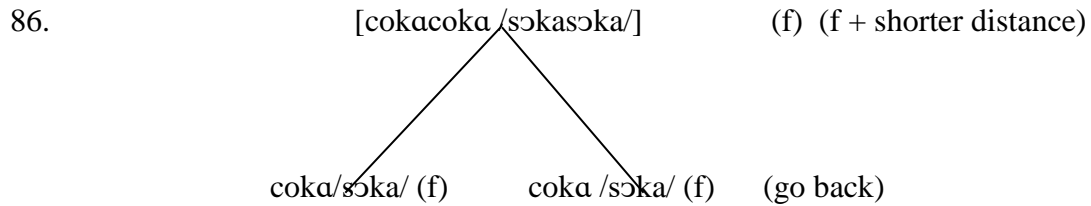
Red. Ijaija nkwire – come nearer I need to tell you something.

Other examples include;

- c. Ita (move away) itaita (Move a bit further)  
 d. Itia (move in a upward direction) itaitia (move upwards a bit)  
 e. Inama (move in a downward direction) inainama (move in a downward a bit)  
 f. Rete (bring) retarete (bring closer)

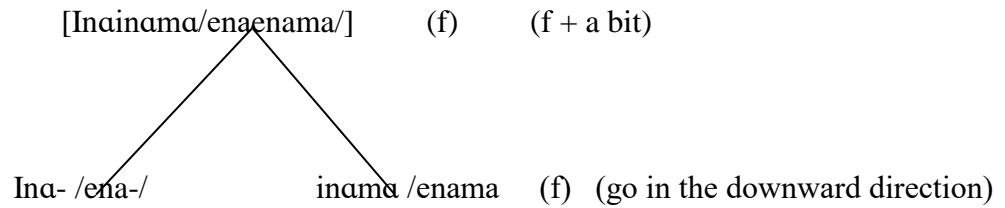
From the examples above we noted that the words are both fully and partially reduplicated. All these words are in the class of verbs. Some of the reduplicated verbs show different meaning from their rootwords. From the examples above, while *coka/sɔka/* means go back which is more of a command, the reduplicated form *cokacoka /sɔkasɔka/* means move back a bit which more like a request.

Reduplication to estimate distance is accounted for by the MDT as was discussed by Inkellas and Zoll (2005) that, while there is no necessary uniformity in the types of semantic function associated with the outcome of morphological doubling, there is uniformity in the inputs. The following illustration shows application of MDT on estimating distances;

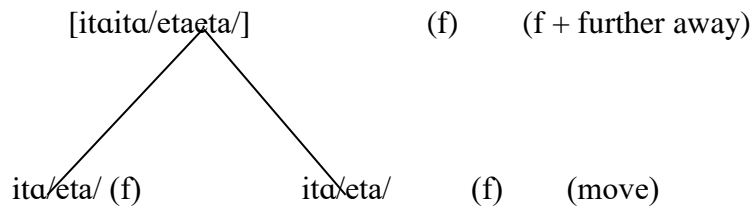


At the same time, it is supported by another MDT view that the construction involves two morphological constituents or subconstituents which have a similar morphosemantic description as shown in the following examples;

**87. a. Partial reduplication**



**b. Full reduplication**



The stems given in the examples above *inama /enama/* and *ita /eta/* after reduplication the former becomes *inainama /enaenama/* and the latter becomes *itaita /etaeta/*, these reduplicated words share close to similar meaning with their root words although with added information. The former becomes move downwards a bit the latter becomes move further.

**4.3.6 Act doing something repeatedly or doing something for a longer period of time**

Verbs are associated with actions, normally defined, as words used to describe an action, state, or occurrence, and forming the main part of the predicate of a sentence. Reduplication of Kimeru verbs results to several outcomes depending on different contexts in which they are used. Reduplication of Kimeru verbs can be used to show the act of doing an action repeatedly or for a longer period of time. We found out the words that show actions done repeatedly, take full as well as partial reduplication and that, this applies in the Kimeru verb class of words. The following are examples verbs showing actions done repeatedly.

**88. Partial reduplication**

- a. Thomithia (educate)      thomathomithia (educate repeatedly)
- b. Geria (try)                      gerageria (try repeatedly)
- c. Ritana (teach)                  ritaritana (teach repeatedly)
- d. Inyiria (tighten)              inyainyiria (tighten repeatedly)

### 89. Full reduplication

- a. Iya (steal)                      iyaiya (stealing repeatedly)
- b. Tonga (touch)                  tongatonga (touch repeatedly)
- c. Gwata (hold)                   gwatagwata (hold repeatedly)
- d. Ruga (cook)                      rugaruga (cook repeatedly)

To justify their relevance in a context, we gave some examples of reduplicated verbs to show act of repeating an action as follows.

### 90.        Verb                                              Reduplicated form

- a. Thoma (study/ read)                  Thomathoma (keep studying)
- Stc. Thoma ngakwijira - Study I will come for you.  
Red. Thomathoma ngakwijira - Keep studying will come for you.

- b. Iya (steal)                      iyaiya (stealing repeatedly)
- Stc. Mwenda akwiya thimu – Mwenda has stolen a phone.  
Red. Endete kwiyaiya mono – He enjoys stealing every other time.

- c. Thungutha (jump)                  Thungathungutha (jump repeatedly)
- Stc. Thungutha kienine - Jump in the field.  
Red. Stc. Thungathungutha kienine - Jump repeatedly in the field.

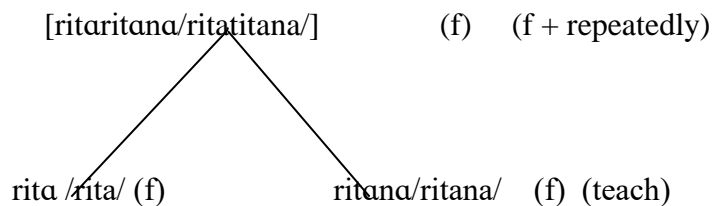
- d. Geria (try)                      gerageria (try repeatedly)
- Stc. Geria kuinyiria murigi juju – Try to tighten this rope.  
Red. Gerageria kuinyiria murigi juju – Try tightening this rope repeatedly.

- e. Thomithia (educate)    thomathomithia (educate repeatedly)
- Stc. Thomithia aana baku wengwa - Educate your children yourself.  
Red. Thomathomithia aana baku wengwa – Keep educating your children yourself.

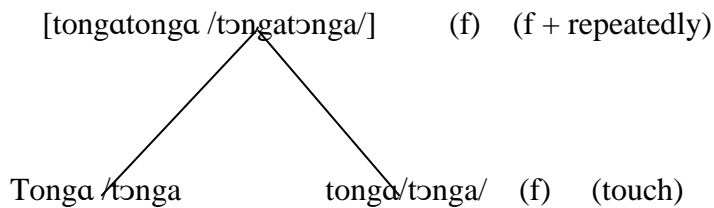


From the examples above we concluded that, in the first sentence the verb is just a normal action word where the action has no added information, while in the reduplicated sentence we noted that the verb portrays an action that is done repeatedly or for a longer period of time. The verbs used in the examples follow the MDT view that, morphological doubling requires a double insertion of morphological constituents or subconstituents which have a similar semantic description. This is illustrated in the following examples;

**91. a. Partial reduplication**



**b. Full reduplication**



The inputs ritana /ritana/ (teach) and tonga /tɔnga/ (touch) share a semantic meaning with their outputs ritaritana /ritaritana/ (teach repeatedly) and tongatonga /tɔngatɔnga/ (touch repeatedly). However, the reduplicated words have some added information in this case showing that the action is done repeatedly.

**4.3.7 Reduplication to transfer class or meaning**

Reduplication to transfer meaning or class happens when the rootword and the reduplicated word do not share a meaning after reduplication, at the same time it can happen when the rootword and the reduplicated word are not in the same class. Reduplication in this case results into formation of new words. This sort of reduplication is different from pseudoreduplication because in this case the rootwords actually exist in the language, which is not the case with pseudoreduplication. The following examples show the reduplication that brings transfer of meaning and class.

## Transfer of class:

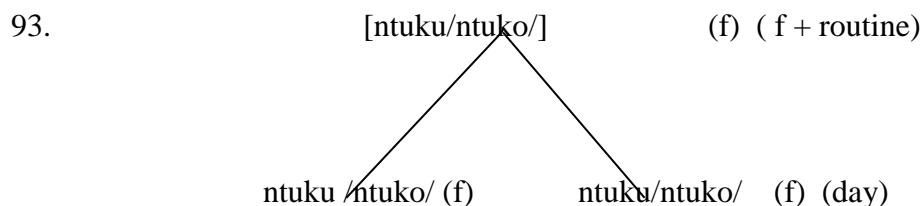
### 92. Rootword

- a. Ntuku – a day (noun)
- b. Mweri – a month (noun)
- c. Ngara – roasted and burnt dry maize cob (noun)

### reduplicated word

- ntukuntu – daily ((adverb)
- mwerimweri – monthly (adverb)
- ngaragara – lie facing down (verb)

From the examples above the rootwords do not share a similar class with the reduplicated word. At the same time their meanings are different. For instance, while ntuku /ntuko/ is in the class of nouns the reduplicated form ntukuntu /ntukontuko/ is an adverb although in the first two examples the meanings are related the classes are different. The examples also follow the MDT view that the construction involves two morphological constituents or subconstituents which have a similar morphosemantic description as shown in the following examples;



## Change in meaning

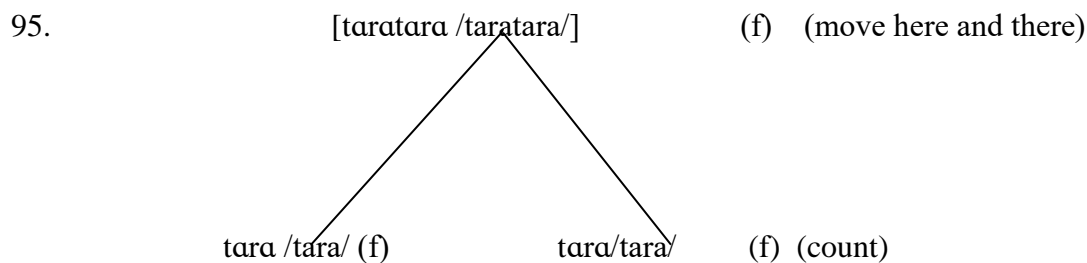
### 94. Rootword

- a. Ina - sing (verb)
- b. Nthande - spark (noun)
- c. Tara – count (verb)

### reduplicated form

- inaina – tremble (verb)
- nthandathande - a seed from a tree (noun)
- taratara – move here and there (verb)(negative connotation)

From the above examples, the rootwords share a class they do not share meaning. Actually the meanings do not relate in any way. However, they follow the view of Inkellas and Zoll (2005) that, while there is no necessary uniformity in the types of semantic function associated with the outcome of morphological doubling, there is uniformity in the inputs. This is illustrated in the following example.



#### 4.4 PSEUDO REDUPLICATION

Pseudoreduplication refers to the reduplication of words that does not necessarily bring forth any grammatical function. Novotna, in a study of Swahili reduplication found out that, there are a great number of words in Swahili which consist of one or more than one reduplicated syllables; however, there is no reduplication present in these cases. These lexical items represent a single morpheme and therefore neither expressions containing half of the elements (reduplicant) nor the underlying form (rootword) exist Novotna 2000: 66. This is referred to as pseudoreduplication.

Novotna further states that, as a result of this fact, it is almost impossible to establish a certain pattern, which clarifies the nature of the lexical items concerned. He gave some examples in Swahili that do not exhibit any connection (semantic or formal) with other words i.e words that might be considered as the original form if any. For instance; *felefele* means an inferior kind of millet however, *fele* does not in any sense represent any kind of millet whether inferior or superior. Other examples that were given in this study included;

96.

- a. Bisibisi - screw driver
- b. Chacha – ferment
- c. Fudifudi – face downwards.

Novotna established that it is possible to detect a few semantic fields and lexical items which seem to be denoted by means of by means of ‘pseudoreduced’ forms quite frequently; he gave examples of fields like zoology and botany among others.

Similarly, in Kimeru, pseudo-reduplication occurs in different words that are found in some classes as will be discussed below.

However, these words do not have any meaningful connection with any underlying element that forms the said reduplicant as will be explained below.

97. For instance; the word ‘gati-gati’ means in the middle or at the centre, this word however has no connection with the word, ‘gati’ which in this case seems to be the rootword ‘Gati’ means a small item e.g. a small chair.

The following examples show some words that are pseudoreuplicated in Kimeru;

**98. Pseudoreuplicated words.**

- a. Kunukunu..... (Restless)
- b. Tang’atang’a..... (Stagger)
- c. Mutaratara ..... (Programme)
- d. Taratara ..... (Move here and there)
- e. Gacagaca ..... (Instability/confusion/chaos)
- f. Ngaragara ..... (Lie down facing up)

From the examples above we established that, these Kimeru words looked as if they were reduplicated, this is because it seemed that there were two words which were used to make up one word that was reduplicated. However, we noted that if we divided these words to what seemed to be the root word and the reduplicant then we would not have any reduplicated word because there were no syllables that qualified to be inputs of the given words. For instance; *gacagaca* means chaos; however, when we took the rootword to be *gaca /ɣasa/* and the reduplicant to be *gaca /ɣasa/* we found out that these words do not have any lexical meaning in Kimeru language.

Therefore, these words cannot be put together to form any reduplicated word like *gacagaca /ɣasaɣasa/* because the words do not exist in isolation. The same case applies to other examples. Therefore, clearly this is a case of Kimeru pseudoreduplication. We also found out that pseudo-reduplication is common in the class of nouns; common and proper nouns which fall mostly in the categories of creatures, plants and people and can be easily be mistaken for reduplication. Therefore, we gave further examples to show pseudoreduplication in Kimeru. We divided them into creatures, plants and people.

**99. Pseudoreplication in Creatures:**

- a. Kiumbumbu.....Chameleon
- b. Gikirakiri .....Cricket
- c. Ntetema.....Termites

**100. Pseudoreplication in plants**

- a. Nyanya..... ‘Tomato’
- b. Mpempe .....Maize
- c. Munyugunyugu ..... ‘Black-jack’
- d. Muthandathande..... A type of a tree

**101. Pseudoreduplication associated with people**

- a. Ng’arang’ari.....tonsils
- b. Karakara .....palate
- c. Munyanya ..... A loved one
- d. Baba ..... Father

**102. Other examples of pseudoreduplication**

- a. Gukengakenga .....shiny
- b. Ngorogoro ..... ‘Thunder’

From the above examples of pseudoreduplication we found out the syllables in these words only seemed to be reduplicated some fully like karakara /karakara/ others partially like mutaratara /motaratara/ but reduplication did not actually occur in any of these words.

At the same time, we noted that, these words that are pseudoreduplicated were not supported by any of the MDT tenets discussed in chapter one of this research project which account for morphological doubling. Therefore, we concluded that pseudoreduplication is different from reduplication because there are no words or part of the words that are doubled to give any reduplicated form of a word. Pseudoreduplication is an autonomous component of Kimeru language.

#### 4.5 Reduplicated Phrases (Common Kimeru expressions)

We noted that there are some phrases in Kimeru which are always used together. They are or they seem to be reduplicated but are also joined by the conjunction (na) ‘and’. The following examples show the phrases in Kimeru which are always reduplicated.

##### 103. Reduplicated words in phrases.

- a. Kenya na Kenya ..... Forever and ever
- b. Miaka na miaka ..... forever and ever
- c. Miaka na miaka ..... Year in year out
- d. Mugongo na mugongo ..... generation to generation
- e. Migongo na migongo ..... Generations to generations
- f. Magita na magita ..... Times and again
- g. Tene na tene..... A long time ago

Mostly used when starting oral narratives. For instance; Tene na tene kwari na mukuru (a long time ago there lived an old man)

- h. Rimwe na rimwe..... Once in a while/ not always
- i. Rugono na rugono ..... (Marking end of a narrative)

For instance; ‘Rugono na rugonorwathirira au!’ (... and that is the end of my story.)

We noted that these phrases have been used in Kimeru for a long time and that some of them have a religious connotation like *kenya na kenya* and *miaka na miaka* (forever and ever) which are used when ending most of prayers. Others are used in oral narratives. For instance, at the starting (tene na tene) meaning a long time ago and (rugono na rugono) marking the end of the story. These words are always used together but we noted that they are not really reduplicated because of the presence of the conjunction. At the same time, these phrases are not supported by any of the MDT tenets discussed earlier in the first chapter of this research project. Although these phrases have a lot of likeness to reduplication they remain to be just cases of repeated words in phrases and not reduplicated words.

#### **4.5 Conclusion**

In this chapter, we discussed the functions of reduplication in Kimeru. We found out the following functions of reduplication in Kimeru; for emphasis, for comparison, for commanding or cautioning, for pluralization, estimating distance, act of doing something repeatedly or for a longer period of time and for transfer class or meaning of words. We also introduced the subject of pseudoreduplication; first we looked at Swahili pseudoreduplication by Novotna 2000 giving relevant examples. Later on we looked at pseudoreduplication in Kimeru and found out pseudoreduplication is a common feature in Kimeru common nouns, we later gave relevant examples from words associated with creatures, plants and people. We found out that pseudoreduplication is not an aspect of reduplication and established that it as an independent concept.

We further focused on Kimeru phrases that always come in pairs and appear reduplicated. They are always used as a pair to convey a certain message. Some of those words were shown to fit in only some contexts. For instance, when ending or starting an oral narrative. Of interest we noted that pseudoreduplication and the reduplicated expressions used in Kimeru are not supported by any of the MDT views that we had discussed earlier in chapter one of this research project. This confirmed that both are different from reduplication and that they exist in isolation.

## **5.0 CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATION**

### **5.1 Introduction**

This final chapter presents a summary and conclusion to the study. The study was about reduplication in Kimeru using Morphological Doubling Theory. The study set four objectives that guided data analysis. It was the goal of the researcher to establish the place of reduplication in Kimeru open categories of speech. In this chapter, the research findings are briefly discussed and conclusion made in relation to research questions, objectives and hypotheses. Recommendations for further research on the issues arising from this current research are also made.

### **5.2 Summary and conclusions of the findings**

Chapter two of this study revealed that Kimeru has seven vowels both high and low vowels. At the same time the study established twenty three consonants including nine prenasalised consonant in the Kimeru Imenti dialect. This chapter also portrayed Kimeru has seven parts of speech both open and closed classes.

Chapter three established reduplication as a morphological process in Kimeru. Total and partial types of reduplication were discussed in details in this chapter. This chapter further focused on the analysis of morphological reduplication on the open categories of speech. This was based on the Morphological Doubling Theory. The examples given in this chapter portrayed both partial and total reduplication both of which are common in Kimeru language. In most examples analysed both the base and the reduplicant corresponded semantically. Agreeing with the MDT view that morphological doubling results from a double insertion of a morphological constituent or subconstituent which have a particular semantic description.

In chapter four, reduplication established certain semantic effects in Kimeru. This chapter further portrayed several functions of reduplication in Kimeru language. The study identified that the semantic function of a reduplication construction is sometimes determined by the context in which it is uttered. This is because some reduplicated words in Kimeru can only be understood in certain contexts. Chapter four also provides an analysis on pseudoreduplication in Kimeru. The chapter further gives examples of pseudoreduplicated words in Kimeru establishing that pseudoreduplication differs from reduplication. This chapter also established that there are kimeru phrases that are always in pairs.



According to chapter four these phrases can be mistaken for total reduplication; however, the chapter presents this as a case of repetition of words in a phrase and not reduplication. The study also noted that these Kimeru expressions are not supported by any MDT views that we discussed earlier in chapter one of this project.

### **5.2.1 On the Hypotheses**

1. Reduplication occurs in all the open grammatical categories of speech in Kimeru.
2. Reduplication reflects different functions in Kimeru.
3. Pseudoreduplication is an independent aspect of language in Kimeru.
4. Reduplication is a morphological process supported by Morphological Doubling Theory (MDT)

This study sought to show which of the hypotheses has been validated or which has been rendered invalid by the research findings. The first hypothesis was validated. It was established that the four open categories of speech studied in this research project portrayed reduplication. Different types of open categories of speech acquired both full and partial reduplication. This confirms that reduplication is a common feature in the open categories of speech in Kimeru.

The second hypothesis was validated. It was established that reduplication reflects different functions of Kimeru words. Reduplication in Kimeru resulted in change of meaning of different words and in some cases change of class altogether. Therefore, reduplication affects the semantic value of words in Kimeru language. According to Inkellas and Zoll (2005) morphological doubling can be used to extract meanings ranging from iconic to idiomatic ideas to doubling that is as a result of semantically contentful construction.

The third hypothesis was validated. It was established that pseudoreduplication was not a concept of reduplication in Kimeru language. Pseudoreduplication existed as an independent aspect of language in Kimeru. Although pseudoreduplicated words seemed reduplicated, they did not have a base nor a reduplicant and overall did not portray any characteristics of reduplicated words. At the same time pseudoreduplication was not supported by the Morphological Doubling Theory which accounted for reduplicated words in Kimeru language.

The fourth hypothesis was validated. It was established that reduplication is a morphological process supported by the Morphological Doubling Theory. The study defined reduplication as a morphological process in which the rootword or the stem of a word or even the whole word is repeated exactly or with slight alteration. In chapter three and four the study presented relevant examples of reduplicated words in Kimeru which were supported by various views of Morphological Doubling Theory. Reduplication is supported by the MDT view that morphological doubling results from a double insertion of a morphological constituent or subconstituent which meets a particular morphosemantic description and that reduplication involves bringing together two stems that meet the same morphosemantic description which may be having some phonological modification.

### **5.3 Recommendations**

This study dealt with morphological reduplication of Kimeru words using Morphological Doubling Theory. We recommend that more studies should be done on reduplication in Kimeru using different kinds of theories like phonological theories. We also felt that a study on phonological effect on morphological reduplication would be a fertile ground for a study in future.

A comparative study can be done in reduplication based on different dialects of Kimeru language. This particular study was based only on Imenti dialect and may differ slightly with the other dialects of Kimeru. Further research can be done on reduplication looking at all parts of speech; this study was based only on the open grammatical categories of speech. Finally, we would wish to recommend that more studies can be done in Kimeru especially in the field of Kimeru morphosyntax.

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# APPENDIX

## Introduction

This questionnaire is part of my research work in Linguistics at the University of Nairobi. It is based on reduplication of the Kimeru parts of speech. The questionnaire requires you to answer questions on reduplication and pseudoreduplication in Kimeru. The questions may take between 15 and 30 minutes to respond. You are requested to complete the questions in two weeks time. The questions are written in Kimeru with an English translation.

## Instructions

- The questions are based on Reduplication and pseudoreduplication.

*(Biuria bibi biegie mariitwa ja gwicokera)*

- You will only be required to use words and not sentences to answer these questions:

*(Uriendekana gutumira mariitwa na ti mistari gucokia biuria bibi)*

- You will be required to answer only the questions written in Kimeru

*(Uriendekana gucokia biuria biria biandiki na Kimeru aki)*

- There are 7 sections: labeled as A-G, answer all of them.

*Kuri na icunci mugwanja A-G, cokia biuria bionthe kiri tucigo tutu*

## Section A

### NOUNS

1. Riria kwaura na kwina ntaka ni iratu biriku muntu ekagira atigakinyange ntaka?  
*(When it rains and gets quite muddy, what type of shoes can one wear to avoid being muddy?)*

2. Thugania riria kuri na rweni, ni sauti iriku tuumba kwigua ithingatene na rweni?  
*(Think about lightning, what sound follows lightning?)*

3. Ugeeka gintu no kiriku iguru buru ria nyomba, uugaga inaa wikite gintu giki?  
*(If you put an item on the topmost part of the house, where will you say you have kept the item?)*

4. Cindano iria twana tuniini tumuntagwa kurigiria mirimo imingi ciitagwa atia?  
*(What do we call the injections that small children get to prevent them from getting different sicknesses?)*

5. Thugania, ukwona mbiti, na ureera antu batigwitikia, okabeera imbiyo yongwa woona nikenda beetikia?

*(Think that you have seen a hyena, but people cannot believe you. What exactly will you tell them that you have seen?)*

6. Thugania, matunda jabangi o kibango jathatu na ni ibango bibingi, ukauga matunda jaja jabangi atia?

*(Think about fruits, put in groups of three each, and there are many groups, in what order will you will say that the fruits are arranged?)*

7. Thugania, antu bagitonyaga nyomba bari bairi aki orimwe. Kuri na antu ikumi ndene ya nyomba, okauga baritonya atia?

*(Think that people are getting inside a house two by two. There are ten inside a room. In which order will you say that they are entering inside the house?)*

8. Antu ekumi kana nkuruki bari amwe, o muntu arina biara bing'ana bing'ana?  
*(If there are ten or more people in one place, how many fingers do each one of them have?)*

## **Section B**

### **ADJECTIVES:**

9. Antu bakari amwe bari na ukui bwa mithemba ithatu, ukauga wa mbere ni umukui, ukauga atia iguru ria ukui bwa uria umuthingatite ?  
*(There are three people of three different heights, if we say the first one is short, what will you say about the person who follows in shortness?)*
10. Ukethira antu baba bari na uraaja buting'anene. Ukauga umwe ni umuraaja, uria umuthingatite ukauga atia iguru ria uraaja bwawe?  
*(If these people have different heights in terms of tallness. If the first one is tall, what will you say about the person who follows in height?)*
11. Muntu akeeja thaa imwe cia utuku tuugaga akwija acereri. Akeeja thaa ijiri ukauga atia?  
*(If someone arrives home at 7p.m, we say he has arrived late. If he arrives at 8p.m what will you say about his arrival time?)*
12. Thugania thaani, mpakuri na cuburia; ikethira tukauga thaani ni ineene, tukauga atia iguru ria mpakuri tukimiguanithania na thaani?  
*(Think about a plate, a hotpot /dish and a sufuria; if we say that a plate is big, what will we say about a hotpot compared to the plate?)*
13. Kethira tukauga mpakuri ni iniini, tukauga atia iguru ria thaani tukimiguanithania na mpakuri?  
*(If we say that the dish is small what will we say about the plate compared to the dish?)*
14. Ikethira turiuga mpakuri ni imbarie tukauga atia iguru ria cuburia tukimiguanithania na mpakuri?  
*(If we say the hot pot is wide what will we say about the sufuria compared to the hotpot?)*



## Section C

### VERBS

15. Thugania mwana akithithia untu no buriku akaremwa na utikwenda kumuthithiria ni atia ukamwira ni kenda eta na mbere kugeria no aniini mbere ya umuthithiria?

*(Imagine a child trying to do something again but cannot accomplish and you don't want to do it for him/her what will you tell him/her so that they can try a little bit more before you help?)*

16. Thugania mwana akari nthiguru bubuthuku, na ni ukwenda okiira aniini ni kenda umukarithia nthi bwega. Ukamwira atia?

*(Think about a child who is seated in a wrong posture and you want him/her to sit up a bit so that you can assist him/her to sit upright, what will you tell him/her?)*

17. Ni ukwenda mwajie area irio biawe, indi atikwenda, arumite tuniini mono. Niatea ukwamwira ni kenda aruma no tungi tuniini?

*(Think about a sick person who does not want to eat, he has eaten a little of his food. What will you tell him/her so that he/she can eat a little bit more?)*

18. Thugania, gintu kiuririte nyomba antu bagagicwa na batigukiona, ni atia ukabeera kenda beta nambere gucua na wirigiuro bwa gukiona?

*(Think about people looking for a lost item in the house, what will you tell them so that they can continue looking for it with the hope of finding it?)*

19. Thugania, muntu niwe wekire gintu giki (19) na atikuririkana narea kiri, ni atia ukamwira ni kenda eeta na mbere kuthugania naria aagikiite?

*(Imagine that someone kept the item in (19). What will you tell him/her so that he/she can continue to think more about where he/she kept the item?)*

20. Bwitanitie na muntu njirene indi ukumutigiira. Ukamweera eje na mpwi ni kenda i?

*(If you are walking with someone and you suddenly leave him/her behind. Why would you tell him/her to hurry?)*

21. Ukoona kuru kana nyomoo ingi ikinunkira gintu kairi na kairi Ukauga niatia kuru ikuthithiria gintu kiu?

*(If you see a dog or any other animal smelling an item again and again. What will you say animal doing?)*

## **Section D**

### **ADVERBS**

22. Ukoona mwana akirijanga irio na ukoona taka agakorwa nibio ukamwira abateerie kuria irio biawe atia??

*(If you see a small child gulping food very fast and you think it might choke, how will you advise him/her to eat his/her food?)*

23. Ukeenda kuuga untu bugukarika ntuku inkai nthiru na utikugweta ntuku no iriku, ukauga iri bwakarikire?

*(If you want to say something happened a few days ago without mentioning the specific day, when will you say it happened ?)*

24. Thugania muntu uria ukuriungagira o rimwe kiumia, na ringi atikuriungire buru. Uugaga akuriungaira atia?

*(Think about someone who visits you once in a week, and othertimes he/she doesn't visit at all. What will you say about his visit? How do you describe his visits?)*

25. Riria muntu akuthuritie nkuruki ya kithimi uugaga uthuri atia?

*(If someone has made you extremely annoyed, how would you describe your anger?)*

## Section E

### PREPOSITIONS

26. Thugania; bukari mwenderethone na muntu, mwenderetho juu juri na antu bairi aki nawe muntu ungi akari kuraaja na tika kuri na kanya gakanene. Ukamwira atea ni kenda eeja akui na ugwe?

*(Imagine, you are sitting with only one person on a bench, there is a big space between the two of you. What will tell him/her so that he/she can move nearer to you?)*

27. Bukethirwa buri bairi mwenderethone na muntu uria ungi nagutintikite, ukamwira atea ni kenda aguitaitira?

*(On the same bench you are two of you but the other person is sitting so close to you. What will you tell them so that he/she can create more space for you?)*

28. Ukoona antu bathatu bakari nthiguru gitine kimwe umwe ruteere rwa urio na uia uungi ruteere rwa umotho, inaa wa bathatu ari gitine kiu?

*(If you see three people sitting on the same bench, if one is seated on the right and the other on the left, where is the third person seated?)*

## Section F

### PRONOUNS

29. Indiria ukwenda muntu eetikia ni ugwe uthithitie untu na ti muntu ungi ukamwira nuu uthithitie?

*(When you want someone to believe that you are the one who has done something and not anybody else, of whom will you tell him has done it?)*

30. Indiria woona muntu woneete tene mono ukauga atia ni kenda muntu eetikia niwe weene na tiungi?

*(If you see someone you haven't seen for so long what will you say in order to convince someone that this is the person that you had seen and no one else?)*

31. Indiria bukuuga ati ni babwi buthithitie untu buna na ti Muntu uungi buugaga atia?

*(If you want to say that you are the people responsible for a certain act and no one else, what do you say?)*

32. Ukoona nguu kana ng'ombe kana mburi iria yaurite. Uugaga atia kuonania niyo na ti ingi?

*(If you find an outfit, a cow or a goat that was lost and want to convince everyone that it is the one what will you tell them?)*

33. a. Ukenda muntu amenya niwe ukwiira untu na ti ungi tinga we, ukamwira urienda kwaria na u?

*(If you want someone to know that you are talking to none other but him. Who will you say that you want to talk to?)*

b. Bakethira bari babaingi, ukabeera atia?

*(If they are many, what will you tell them?)*

## Section G

### INTERJECTIONS

34. Mwana akenda gutongithia ruwaya rwa sitima na njara ciina ruuji uti akui. Ukamwira atia na mpwi ni kenda atikaringithie mbere ya utakinya kumutethia?

*(If a small child is almost touching electricity cables with wet hands what will you tell them to do before you reach there to help?)*

35. Ugekiirwa biakunyua gikombene mwanka bigetika na mwikiri atitegete ukamwira atia ni kenda atiga orio?

*(If someone is pouring a drink for you in a cup and it is already overflowing and the person serving is not looking, what will you tell him/her so that he/she can stop immediately?)*

Comments if any:

.....  
.....  
.....  
.....

Name of the interviewer

.....

Name of the person being interviewed

.....

Date

.....

I bwega mono niuntu bwa utethio bwaku.

*(Thank you so much for your help.)*