

**AN INVESTIGATION OF THE MORPHOPHONOLOGICAL ADAPTATION OF
BORROWINGS FROM ENGLISH TO KURIA LANGUAGE**

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**A Research Thesis Submitted to Egerton University Graduate School in Partial
Fulfillment of the Requirements for the Degree of Master of Arts in English Language
and Linguistics of Egerton University**

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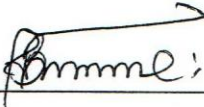
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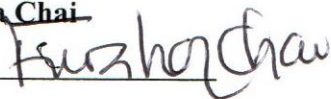
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October 2010

DEDICATION

This work

is dedicated to

Pastor and Mrs. Phaniel Roswe

who gave me all that I hold dear to me.

ACKNOWLEDGEMENTS

I give all glory to God for the success of this work. It's a dream that is sometimes difficult to believe that it came true. He saw me through thick and thin.

I can hardly boast that this final product is my personal accomplishment; I owe so much to those who sacrificed and devoted their time to guide me through the whole process.

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ABSTRACT

This study set out to investigate the morphophonological processes that loan words from the English Language go through to adapt into Kuria Language since the two are very different in their morphological and phonemic inventories. The fact that words borrowed from English to Kuria undergo some adaptation and modification and are used as if they were Kuria words motivated this study. In addition to this, though studies have been conducted on Kuria as a language, nothing is known yet about the processes that English loan words go through to fit in the Kuria sound system. The study therefore examined the morphophonological structure of loan words both in English before borrowing takes place and in Kuria after borrowing has occurred. It identified and described the phonetic changes that loan words from English go through to fit into Kuria system of speech. Thereafter, it described the processes that come into play in word restructuring and formulated the rules involved. The study was guided by the Natural Generative Phonology as its theoretical framework. Purposive and random sampling procedures were used to get the sample of Kuria speakers from the population of those who practice the selected domains in Ntitaru Division of Kuria East District. The data for the study was an inventory of sixty loan words from English which are used in Kuria. These were drawn from the fields of education, religion, health, the police force, motor vehicle mechanics and the domestic domain. Data were collected using focus group discussions and recorded on an audio tape-recorder. Loan words were written in gloss and then transcribed using the IPA symbols; this was in preparation for morphophonological analysis which was done using the generative framework. From the findings it was revealed that Kuria employs such processes as resyllabification, sound epenthesis, sound deletion and substitution to customize English loan words into its lexical inventory. These processes are employed to break the syllable structures and vowel sequences found in English words but are not acceptable in Kuria, and to nativise consonant clusters and other sounds not permitted in Kuria language. No single word maintained its initial form when borrowed from English to Kuria. This study will contribute to linguistic scholarship. By drawing examples from Kuria language, the study will be an addition to the repertoire of knowledge on morphophonemics, specifically morphophonological adaptation of loan words.

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CHAPTER ONE

INTRODUCTION

This chapter covers the introduction part to this study. It is divided into different sections which include: the background to the study, the statement of the problem, objectives, hypotheses, justification of the study, scope and limitation of the study and lastly the definition of terms.

1.1 Background to the study

Kuria Language.

Kuria language is spoken in the south western part of Nyanza Province of Kenya along the Tanzania border by the Abakuria people. The Abakuria are part of the Bantu group of Languages. Languages closely related to Kuria are Kisii, Luhya and Kikuyu. According to the last population census (2009), the Abakuria number around 255,000 (in Kenya) this being a quarter of their population, three quarters live in Tanzania.

According to Stafford (1967), Kuria has four dialects: Iregi, Nyabasi, Bukira and Bugumbe. These dialects have a high mutual intelligibility such that their lexical and phonological features are treated as being the same. Today the Abakuria practise a mixed economy involving Agriculture, livestock rearing with a few of them being found in diverse professions and vocations.

English Language

English belongs to the West Germanic branch of the Indo-European group of Languages (Grimes 1996). English first came to Kenya through the Christian missionaries and traders. It was also used by British colonialists. With mass education after independence English took a new importance and the former colonial power took pains to maintain its cultural and hence its economic and political influence by sending books to Kenya and sponsoring local students and visitors to Britain (Sifuna 1990). English soon became the official language of Kenya used in instruction throughout the education system. It also became the language of regional communication in East Africa thus setting a fairly standard cycle of borrowing.

Kuria and English have been in contact since the coming of missionaries and colonial administration. English being the strongest international *lingua franca* and the only world language of politics, entertainment, and technology (Crystal, 1997), is viewed to be the most

prestigious language on earth and promptly a donor language (Trask, 1996). In agreement with Trask's ideas above, are other scholars who have argued that the language of numerically and culturally more dominant people are more likely donors in lexical borrowing while the less prominent groups are more often borrowers (Scotton & Okeju 1972). This is true with the English Kuria situation where Kuria borrowed from English which did not borrow from Kuria because it had less prestige.

Following colonization, the Abakuria were exposed to extensive contact with western science, technology, military, religion and education. This began what was to be a much greater period of borrowing that continues to date. When the Ominde Commission (1964) recommended the use of English as a language of instruction from primary level of education onwards, massive borrowing of lexical items from English occurred as learning of English became formal. This was exacerbated by the need for new knowledge and the opportunities that English language had to offer. Due to interaction with the missionaries and colonial administrators, the Abakuria borrowed a lot of western items of material culture and values for which they did not have words in their language; hence, the borrowing of lexicon for the new phenomena became inevitable.

The borrowed words have since become part and parcel of the Kuria sound and lexical system, and are used in a nativised form such that, some of the Kuria speakers use the words without realizing that they were once English words. In addition, English and Kuria languages have different phonemic inventories and morphological structure. For instance, Roach (1991) notes that English has twenty one vowels; twelve pure and nine diphthongs while Cammenga (1994) reports that Kuria has seven vowels which double to fourteen due to lengthening. Secondly, English and Kuria Language have different phonological features; in Kuria, a word can begin with the velar nasal sound [ŋ] as Mwita (1996) notes, while in English language, this is not possible. Cammenga (ibid) reports that, the plural marker of regular nouns in Kuria language is in word initial position, while in English it is in word final position. This study therefore identified the various processes that make it possible for English loan words to fit into Kuria speech system despite the two languages' structural differences.

1.2 Statement of the problem

Although several studies have been conducted on Kuria phonological and morphological aspects such as tone, tense and aspect, reduplication of nouns, verbs, and adjectives, the morphophonological adaptation that English loan words undergo to fit into Kuria speech system have not been investigated prior to this research. There has been a

dearth of research information on the changes that occur during nativization of the loan words yet Kuria and English language have had contact for over a century. The basic questions are: What are the processes involved during the adaptation of English words into Kuria language? On what morphophonological rules are they anchored?

The researcher set to find answers to the questions on what determines the phonological shape of the loan words, what determines the choice of Kuria speakers to substitute, or delete incoming foreign segments. After the analysis the researcher was in a position to account for the various ways in which Kuria handles incoming segments that are totally alien to its phonological system, after which the principles which offer reliable predictions as to whether Kuria will opt for substitution, deletion or devoicing of foreign segments in a given case were established.

1.3 Objectives of the study

The objectives of this study included;

1. To identify the phonetic changes of words borrowed from English and used in the Kuria language.
2. To describe the processes which guide the adaptation of English loan words to fit into the Kuria sound system.
3. To establish the principles underlying word adaptation from English to Kuria.

1.4 Hypotheses

In this study the following assumptions were made;

1. Words borrowed from English to Kuria language undergo phonetic changes.
2. English loan words go through certain morphophonological processes to adapt into Kuria sound system.
3. The processes involved in adaptation of loan words from English to Kuria are governed by finite principles.

1.5 Significance of the study

The importance of the study of loan word phonology in helping to understand the internal phonological system of a language cannot be overstated. Studying borrowing processes helps to reveal interesting structural features of the target language. Since the source language forms are structurally illformed, from the perspective of the target language speakers, and since there may be several potential ways to shape the forms to satisfy minimal

target language norms, the precise way in which loan words are reshaped provide valuable clues to deep seated phonological and morphological patterns of the target language.

It is in this regard that this study throws more light on the internal phonological system of Kuria based on the assumption that the perception and rendition of foreign sounds is based on the internalized grammar of Kuria speakers. This will provide better understanding of the grammar of this language. This study is important in that it contributes to linguistic scholarship in the area of cross linguistic morphophonemics. It also enables scholars and even Kuria speaker-learners to understand Kuria structure. Apart from that, the study augments the existing body of knowledge on language contact, borrowing and morphophonemic integration of loan words, both by analysis and exemplification. The results will have implications for scholars interested in African languages' development, historical and comparative linguistics, and in the phonological adaptation of loan words by recipient languages. In explaining the integration of English words into Kuria, the study sheds more light on the processes of language contact and borrowing. It also provides an insight into the factors that motivate morphological and phonological changes in many languages.

1.6 Scope and limitation

Kuria language has words borrowed from many languages but the focus of this study was on the words of English origin only. Sixty loan words of English language origin were drawn from the domains of education, health, religion, police administration, motor vehicle mechanics and the domestic domain. The choice of these six fields was based on the argument that, the most easily borrowed words belong to forms of discourse referring to technology, words for exotic concepts or ideas, objects, phenomena, and aspects that are formal, new and somehow strange to the borrowing language (Hock, 1986). Only the noun class was considered because, nouns are used to refer to the basic aspects of human life. They are therefore, invariably prone to borrowing, whereas function words like pronouns and prepositions, are usually not borrowed (Haugen, 1969).

There were many challenges encountered during the research period. First, borrowing being a complex phenomenon involves transmission, at various times by various speakers, of different lexical items; there were some sounds found in English which had no corresponding sounds in Kuria therefore great care had to be taken to ensure that there is no incorrect conclusion that is made concerning adaptation. This, coupled with the fact that it was difficult

to get reading materials because Kuria language has not been extensively studied and therefore not so much has been written about this language, proved a great challenge to the researcher. The researcher however drew from knowledge acquired in the study of other languages and made appropriate analogies. Secondly there was fighting and unrest between two clans in the divisions where the study was to be conducted, hence presenting a challenge to the researcher and her assistants.

1.7 Definition of terms.

The definitions of operational terms given here are as per how the terms were used in this study.

1. **Allomorphs:** Refer to the alternative manifestations of the same morpheme which vary in shape and pronunciation according to their conditions of use but meaning remains the same. For instance, the prefix in 'input' can be realized as [in] or [im].
2. **Borrowing:** The natural process through which a language adds new words to its lexicon by copying these words from another language.
3. **Integration:** Is the assimilation of regularly used foreign items to the patterns of the receiving language, at the phonological or morphological levels.
4. **Loan words:** Words borrowed from one language and incorporated into another. Also referred to as borrowings.
5. **Morphemes:** Grammar (grammatical) categorization and arrangement of forms of language in relation to meaning specifications and the environment or position of attachment within linguistic continua. For instance, in 'buses' or 'buns', -es and -s signal an identifiable meaning from the roots 'bus' and 'bun'.
6. **Morphophonemics:** Is an interface between morphology and phonology, i.e. the way through which morphological structure and phonemic variation are linked. It also deals with the phonemic differences between allomorphs of the same morpheme.
7. **Nativization:** Is the process whereby foreign words from one language are incorporated into another usually with phonological and morphological modifications so as to be congruent with the latter's phonological and morphological paradigms.
8. **Phoneme:** Refers to any one of the set of smallest distinctive features in sounds of a language that distinguish the meaning of one word from another.

9. Segments: These are the vowels and consonants of a language i.e. the specific sounds found in a specific language.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

This chapter reviews the existing literature in relation to this study in order to find a perspective on the most recent research findings related to this topic. Currently there is no work in print that deals exhaustively with borrowing in Kuria. What exists in literature on Kuria language is Cammenga's (1994) work which lists the Kuria sound system. The work however does not examine the morphophonological adaptation of loan words. There is however a lot of literature on the phenomenon of borrowing and loan words in general. The literature was divided into two sections. Section one critically examined the studies done on language contact and borrowing, morphophonological integration of loan words, and studies done on Kuria language. The second section presented the theoretical framework that informed this study.

2.1.1 Language contact and borrowing

Thomason & Kauffman (1991), study borrowing, which they view as the incorporation of foreign features or words into a group's native language by speakers of that language. They observe that the borrowing language is maintained but it is changed to some extent by the addition of the incorporated features. Invariably, in a borrowing situation, the first elements to enter the borrowing language are nouns. Thomason & Kauffman (1991:57) also observe that, "the borrowing of a word from one language to another requires some form of phonological and morphological adaptation." This is relevant to this study because it implies that nativization of the new elements makes them pronounceable according to the rules of the borrowing language. The two scholars agree with other scholars' argument that, for lexical borrowing to take place a contact situation between two languages involved is required (Eichhoff 1980). Thomason's study is related to the current study since both are concerned with borrowing of words from one language to another. However the current study goes deeper since it examines the strategies put in place by the receiving language to make the loans fit into its structure.

Borrowing is an attempted reproduction, in one language, of patterns previously found in another (Haugen, 1950). The donor need not be giving away the loan and does not consent it, the recipient need not repay it. The borrower must stand to benefit in some way

from the transfer of linguistic material. This gain may be social because speakers borrow from a prestigious group or it may be linguistic i.e. a speaker may find a word to refer to a borrowed item, object, value or a phenomenon, new information or technology. Speakers may have to refer to some unfamiliar concept for which they have no word in their own language. For instance, when one group of speakers borrows an object or concept from another, its name tends to come along. However, there are cases when a language borrows even while it already has a word. For instance, the English word 'handbook', (originally 'manual'), was borrowed from French which had borrowed it from Latin. This study differs from Haugen's because it deals with the morphophonological adaptation of loan words while Haugen deals with the sociolinguistic circumstances of the phenomenon.

Many researchers agree that the term borrowing is misleading semantically since it implies that the source language relinquishes a form in lending it to the borrowing language which is expected to return it later (Hockett 1958, Weinrich 1963, Knappert 1970, Asher & Sympson 1994).

Holmes' (2001) is an explication of the restructuring of borrowings into the Maori language system. His study gives an example of the Hebrew case noting that, words borrowed into Hebrew language are often integrated and nativised to fit into its structure, for instance, the loan word "bank checks" in Hebrew *check-im* uses the Hebrew plural suffix – *im*. In studying Maori, Holmes (ibid) notes that a word like 'komihana' which is borrowed from the English word 'commission' is adopted to fit the Maori sound system. [h] is substituted for [ʃ]. [h] is the usual fricative substitution for most sibilants and in the above Maori word, it has been used instead of [ʃ]. The final vowel [a] has been inserted in the borrowed word to fit the Maori sound structure. There is always a vowel since Maori is a language in which all syllables end in vowels, therefore words change in the following manner; 'treaty'-*tiriti*, snake-*hineke*, plough-*parau*, biscuit-*pihikete*'(p 32). Holme's work is related to this study since for the two studies, the borrowings are words used to name foreign and exotic concepts, values, and objects and both look into how the borrowings are nativised to make them pronounceable in the borrowing language.

There are several reasons advanced to explain why languages borrow from one another. Hockett (1958) identified prestige as one of the reasons for borrowing. He argues that people emulate those they admire. The same motive is advanced by Weinrich (1963).

Borrowing words because of prestige is common because a prestige language is presumably spoken by people of wealth and power, so access to that language would be advantageous to a borrower for personal advancement (Hill and Hill, 1986). The need filling motive is another reason whereby a language borrows in order to find words for new objects, concepts and places. This is because it is easier to borrow an existing term from another language than to create one (Langacker 1972, Hockett 1958).

Hock (1986) observes that, languages borrow from others in order to widen their functions in the fields of literacy, religion, politics, military science and technology. It is also noted that, the easily borrowed words are the ones used in referring to technology, exotic phenomena, values, ideas and linguistic aspects requiring definite observation. It is indicated that English words *nation, inflation, machine, engines, atom* which have been borrowed from French refer to phenomena that were strange to the English speakers. Once a word is borrowed, it is modified such that its original features may be changed to the phonetic features of the borrowing language. The speakers of the borrowing language have to ensure that the words fit in their language's system because the two languages differ in their structures. Hock calls this morphophonemic nativisation. He concludes that it's nouns that are heavily borrowed. This study dealt with the fields of education, health, religion, motor vehicle engineering, police administration, and the domestic domain.

In resolving phonotactic difficulties, Basington (1981) offers preliminary evidence from the borrowing case in Marshallese. He observes that Marshallese has borrowed from German, Japanese and English. His study is concerned with the borrowing of consonant sounds from English. The borrowed words are naturalized into Marshallese through processes like epenthesis, deletion, feature adjustment and metathesis. For instance; 'stamp becomes *jiitaam*, trump becomes *turum*, while milk becomes *milik*'. Though he studied borrowings from English, his study dealt with phonological processes only and concluded that Marshallese employs a whole gamut of processes of modification.

On the type of linguistic items likely to be borrowed, Bynon (1977) discusses the lexical items that are open to borrowing. He notes that generally the open classes: nouns, verbs, and adjectives that are more readily borrowed than the closed classes (pronoun, conjunctions and prepositions). He notes that nouns are the most borrowed everywhere because most of the borrowed words are the names of new objects and materials.

From her studying Scottish Gaelic, Dorian (1992) points out that most of the borrowings are words for concepts that are not traditional, e.g. words that relate to buildings, clothes, sports, food available for purchase (as opposed to food gathered or hunted in the bush), technology, and schooling all of which are borrowed from English along with the concepts that they represent. For instance; '*puluku*' for 'cow' is from English 'bullock', while '*makiti*' for 'gun' is from English 'musket'.

Once borrowing has taken place, the words undergo phonological adaptation. The phonological level is the one that is mostly affected because, borrowed words undergo morphophonemic reconstruction. Hyman (1970) writing on the role of borrowing in the justification of grammars, posits that sounds are borrowed on the basis of phonemic approximation. Supporting Hyman's (1970) argument, Kaye (1979) claims, using Yoruba loan words in Nupe, that the target language borrows a foreign phoneme as an underlying form then allows it to undergo phonological rules to yield a phonotactic form which differs from the phonetic form in the source language. Again using English loan words in Spanish, Kaye further argues that loan forms are actually reshaped to conform to the deep phonotactic constraints in the Target language.

Hansford & Hansford (1989), Katamba (1987) and Mwhaki (1998) all argue for the notion of concreteness in loan phonology where the loanword nativization process is derived from the surface structure and not the underlying structure. In an article on borrowed words in Chimbungu, they argue that foreign phonemes are directly mapped onto corresponding native phonetic forms. Katamba and Rottland (1987), working on syllable structure in English loans in Luganda, also argue that English loan phonemes are mapped onto the nearest phonetic forms in Luganda.

Mwhaki (1998), writing on English loan words in Gikuyu, also concludes that phonological adaptation involves replacement of phonological properties of the source language with the equivalent elements in the target language. She maintains that the target language substitutes the most similar native sound, for any foreign segment not in the target language. The process of phonological integration of loan words in Kuria can clearly be explained from the concrete integration approach. The data collected clearly support the view that foreign phonemes are directly mapped onto corresponding native phonetic forms.

Weinreich (1968) reports that, phonemes [p,f,v] are treated as [p] when borrowed from English to Warlpiri because, Warlpiri does not have [f] and [v] sounds in its lexicon. Thus, borrowed words have to conform to its structure. He further claims that a morpheme is likely to be borrowed the less bound it is. Other studies show that content words (nouns) which are the least bound, are borrowed more than verbs and adjectives, which are also borrowed more than function words (Andrew, 1999).

Langacker (1967) notes that, languages change in time due to linguistic interaction. Borrowing therefore affects the phonological structure of the borrowing language, and in most cases the borrowed word has to fit in the phonology of the borrowing language. For instance; the word 'rendezvous' which is borrowed to English from French, is pronounced with /r/ from English style and the first /e/ is not nasalized though French speakers nasalize it. This makes the word sound like an English one. Langacker (ibid) also supports the fact that borrowing depends on the perceptions of prestige, for example; though English borrowed from French, French did not borrow from English because it was viewed as less prestigious.

According to Rommaine (1994) borrowing results from colonial and political conquest of speakers of one language by those of another. For instance colonial administration by British and Germans in East Africa led to many words being borrowed into African languages. Rommaine further identifies two types of loan words: the phonologically similar word in the donor language and the borrowing language i.e. the transliterated loanword which is used in the borrowing language with the closest possible sound to the borrowing language and uses its morphophonology. For instance, Chinese 'baibai' is identical to the English 'bye-bye' and is used in the same context. Secondly the calque/translation/loanshift in which case the borrowed term consists of a foreign form and meaning but adopts native morphophonology. For example, Chinese *yaogun* can be translated 'shake+stone' with the meaning of English based 'rock and roll' music style. Rommaine's work was very vital to the current study because she gave the reasons why borrowing takes place.

Loan words are open to modification, both on entering the language and with time (Sankoff, 1984). It is the flexibility of form and meaning of the loan words that enables them to adapt easily to the structure of the borrowing language. On the other hand, the process by which a foreign word becomes a loan word is gradual (Bloomfield, 1933). True loan words

are phonologically, morphologically and grammatically integrated into the host language (Brumfit, 1982). Stenson (1993) recognizes two levels of borrowing: adjusted borrowing, where the word adapts to the structural criteria of the host language, and pure borrowing where the word retains its native feature. This study considers adjusted borrowing as a means to investigate cross linguistic fusion. Katamba (1994) distinguishes between direct and indirect borrowing: indirect borrowing is when for instance, language E receives a loan word from language A by way of language B, C or D. Direct borrowing is when the loan word is transferred directly from language A to B. Such loan words are easier to identify and confirm and they are the focus of this study.

Once borrowed, the words can go through three levels of linguistic integration. First, the words can be used but retain their foreign phonology. Secondly, words can be partially integrated into the borrowing language, or words can be fully integrated and become indistinguishable (Andrews, 1999). However sometimes a borrowed word may never become fully nativised (Katamba, 1994), and occasionally the loan word will affect the borrowing language itself (Bloomfield, *ibid*). Sankoff (*ibid*) measured the degree of integration into the borrowing language by frequency of use, native synonymy and replacement and speakers' acceptability.

2.1.2 Morphophonemic integration of loanwords

Hoffman (1991) observes that, once a word has been introduced into the borrowing language, it has to follow the linguistic patterns of the host on both phonological and morphological levels, to an extent that the users are unaware of its foreignness. For example in Egyptian Arabic the word '*munawra*' from **manoeuvre**, '*warsa*' from **workshop** and '*musiika*' from **music** underwent integration so that their foreignness is unnoticed and monolinguals use them without an urge to find an alternative for them.

According to Smeaton (1973), integration is the assimilation of regularly used foreign items to the patterns of the receiving language, at the phonological or morphological levels. To adapt to the phonological patterns of the borrowing language, loan words undergo processes of sound alteration, addition, omission, and shifting due to the inherent sound patterns of the language. They also adapt to the morphology of the receiving language in that they go into their noun class system according to their meaning, lack of an overt prefix of a particular class or the phonological shape of the initial syllable of the loan word. Their

morphological structure is changed to achieve harmony with the established predominant pattern and root system of the receiving language. For example in some languages consonant clusters may not occur in syllable initial position and vowels do not occur in word initial position, others have tri-, yet others have quadri- consonantal root systems (Keshk, 1995).

When producing a loan word, speakers attempt the closest proximation to the model because the source language and the receiving language's phonological patterns do not correspond identically. Speakers have to exercise sound alteration because either the phonemes do not exist in their language, or there are more than one possible phonemic realizations for one sound. For example /p/, a phoneme in many source languages but only an allophone of /b/ in many receiving languages is normally replaced by its voiced counterpart /b/ in words like *protein*, *police*, *diploma* and *pipe* (El-sheikh, 1977). In Egyptian Arabic /V/ is an allophone of /f/ (its voiceless counterpart,) or /b/ (its plosive counterpart), thus it will be replaced by /f/ in words like 'villa', 'vitamin', and 'valve'. The affricates /dʒ/ and /tʃ/ are not found thus they are replaced by their fricative counterparts /z/ and /s/ in words like 'jeep', 'chips' and 'march'.

Hassan (1979) notes that, vowels in loan words undergo substitution or lengthening due to their absence in the receiving language. For instance the French vowel /eu/ is rendered as /ee/ for *chauffeur* (sofeer) or as /oo/ in *docteur* (doctoor) when borrowed into Egyptian Arabic. Vowels are also lengthened when they are in a stressed syllable. For example there is transformation of /o/ into /oo/ in such words as *galoon* for "gallon", *saloon* for "salon". Sometimes no two vowels are allowed in succession without being intruded by a consonant (Smeaton, *ibid*). In other cases there is consonant doubling, called gemination. In such a case loan words undergo gemination to approximate the receiving language's patterns. One such pattern is CVCVCVCCV as in *karamella* from 'caramel', *fanella* from 'funnel' (Jamal: 2001).

During borrowing of English words into Brazillian Portuguese, numerous phonological processes take place and several phonological changes occur. Naim (1998) reports that although non pharyngealized consonants occur in Beirut Arabic, when consonants are borrowed from Italian and French they are pharyngealized whenever they occur preceding long low vowels; this is due to the distinction that speakers make between the vowels in these foreign words and the local /a/ that occurs after pharyngeals.

Paradis and Lacharite (1997) studied French loanwords in Fula, a language spoken in Mauritania and Senegal. They found out that the loanwords adopted foreign phonological sequences according to what they call repair strategies which include, breaking up French consonant clusters by cluster simplification or vowel insertion and denasalization of French nasals. Paradis (1995) found similar patterns in French loanwords found in Kinyarwanda and English loanwords in Quebec French.

According to Holden (1972) there are systematic segmental and suprasegmental alterations in loan words. Such changes are rule governed in the view of the canons of the borrowing languages' phonology and morphology. Changes may range from assimilation, dissimilation, metathesis, elision, to doubling or replacing of one or more segments of the original. In addition, El-Sheikh (1977) remarks that Arabic speakers often change the condition of a word from what it was in the foreign language by assimilating to Arabic those letters that are not Arabic and replacing a letter though it occurs in Arabic by another one. He adds that, to be adapted to the borrowing language some loan words undergo deletion as a morphophonemic process. Deletion may involve initial, medial or final segments or syllables, and may include even the clipping of a part of a word or a member of a compound word.

The process of remodeling loanwords in order to conform to the receiving language's word paradigms involves vast changes in the structure of the loanword including segmental and vowel changes, metathesis, elision, addition and modification of stress patterns (Sahib, 1987). Some loanwords are morphologically naturalized and may undergo a process of derivation in line with the receiving language's derivational patterns in inflectional affixes (Holden, *ibid*). Holden further notes that modifications may be sanctioned by the receiving language's phonotactics and morphological paradigms. Most morphophonemic adaptations are regular and consistent.

Bakari (1982) studied the morphophonology of Swahili dialects spoken in Kenya. He uses Natural Generative Phonology. By studying processes like insertion and vowel lengthening, he concludes that phonological processes help to preserve the original language. The study is important because it leads to an understanding of the processes in the reconstruction of loan words which this study aims at describing.

Sure (1993) in his paper 'Grammatical and phonological integration of English loan words in Dholuo' reports about integration of words into another recipient language at grammatical levels. But he does not look at the processes that are at work during adaptation. Such processes will be considered in this study. Sure (ibid) credits borrowing as the one way through which natural languages develop. He reports that borrowing involves adoption of a foreign word and transforming it to fit the new language. He adds that borrowed words acquire the characteristics of the new system to enable them participate effectively; that is, they undergo a kind of assimilation and nativisation.

Aswani (2002) studies the phonological reconstruction of English loan words in Kiswahili. He notes that there are phonological and sound changes that occur when words are borrowed from English to Swahili. He further notes that phonological nativization makes borrowed words usable by rendering them pronounceable. The introduction of loan words into the lexicon of a language constitutes external linguistic change thereby calling for phonological restructuring in order to maintain the preferred phonological structure. His work is related to the current study in that both deal with borrowings from English. However the present study was somewhat different in the sense that it looked at the morphophonemic processes while Aswani's only investigates the phonological level.

2.1.3 Studies on Kuria language.

A few studies exist which provide a good picture of the main characteristics of the Kuria segmental phonology. Outstanding among these is Cammenga's (1994) which has been a work of depth and insight in this study. Most of the descriptive generalizations upon which this study is based are drawn from his work.

Cammenga (1994), studied Kuria phonology and morphology. He gives an inventory of the Kuria consonants and vowels. This study indicates that, there are seven vowels in Kuria which double to fourteen due to lengthening, with seven contrasting qualities occurring in long and short pairs. This study used Cammenga's (1994) study as the basis for the formalization of Kuria structure.

Mwita (1996) gives the Kuria noun classification. He observes that, like other Bantu languages, Kuria uses affixes extensively. Each noun belongs to a class which is indicated by a prefix on the noun. Plurality or singularity is indicated by a change of the prefix. He further notes that, Kuria has a syllable structure whereby consonants, vowels and units of length

combine to form syllables which in turn combine to form words. In Kuria, there are several types of syllables found i.e. V, CV, VV, CVV, CCV. The common syllable type is CV i.e. a consonant followed by a single vowel. Like Cammenga (1994), Mwita's work represents a formalisation of an aspect of Kuria structure.

Chacha and Odden (1998) studied tone prediction in Kuria, he observes that Kuria is a tonal language and that tone is phonemic in Kuria; however they are not concerned with borrowing which is of focus in this study. On the other hand, Maitaria (2001) looks into reduplication of Kuria nouns, verbs and adjectives. His is yet another study on Kuria that does not focus on borrowing. Though studies have been conducted on Kuria language, no study has specifically been conducted on borrowing specifically on morphophonemic reconstruction of English loanwords into Kuria. The current study is therefore a vital addition to the information on this language.

2.1.3.1 A description of Kuria language.

The role of this description is to provide non Kuria speakers with information about how the results in this study were arrived at. The description covers Kuria sound segments: vowels and consonants and also covers the noun class which was the focus of this study.

Kuria is a language spoken by Abakuria of the North West region of Nyanza province; it belongs to the Bantu language group and as other Bantu languages, uses affixes extensively. Each noun belongs to a class which is indicated by a prefix on the noun. Plurality or singularity is indicated by a change of the prefix. Kuria is made up of open syllables i.e. type CV (consonant-vowel) as seen in nouns such as *mokogoti* (last born), *musubati* (daughter). Almost all words end in a vowel because closed syllables of CVC type are not permissible; even a situation which seems to contain the CCV type, the last syllable must end with a CV structure, as in *makonge* (sisal), or *mogondo* (garden). This is important when words are imported from English or other non Bantu languages; they have to be transformed to fit the sound patterns of Kuria. For instance, a word like 'school' borrowed from English is transformed into /isukuru/ whereby /i/ is a prefix and /su-ku-tu/ follow the CV syllable type. Therefore, the English [sk] has been broken up by inserting an epenthetic /-u-/ ; /-u-/ has also been added at the end of the word to ensure the word fits into that structure.

2.1.3.2 Kuria phonology

This section identifies consonants and vowels in Kuria language.

1. Kuria Consonants. The consonants segments of the Kuria sound system are as set out in the table below (Cammenga, 1994). Below the table is a representation on the orthography and an example of the consonants' occurrence in words.

All consonants in kuria can appear in word initial position but none can occur in word final position. The semi vowels [w, j] occur as consonants in Kuria and are capable of being followed by vowels and diphthongs. For example, in /ijane/ 'iyane' (mine). No word ends in [j] or in a voiced plosive; therefore in loan words most consonant sequences lose the final consonant when they are being adapted into the Kuria sound system.

Table 2.1: Kuria consonants

	Place			
Manner	Bilabial	Alveolar	Palatal	Velar
Stops	/mb/	/t/ /nt/ /nd/		/k/ /ŋk/ /ŋg/
Affricates			/tʃ/ /ntʃ/	
Fricatives	/β/	/s/ /ns/		/ɣ/
Nasals	/m/	/n/	/ɲ/	/ŋ/
Flaps		/ɾ/		
Glides	/w/		/j/	

Source: Cammenga, (1994)

Kuria language has twenty consonants in total. These consist of thirteen pure consonants and seven nasalized compounds.

These consonants form building blocks in word formation as seen below.

Orthographic Representation	IPA Symbol Representation	Examples
th	[t]	thatha(father)

k	[k]	omothoka(motocar)
nt	[nt]	enthange (tank)
nk	[ŋk]	eŋkonge(sisal)
ng	[ŋg]	ubukongu (difficulty)
nts	[nts]	entsera(path)
nd	[nd]	gendia(drive)
mb	[mb]	gomba(barren)
b	[β]	baba (mother)
ch	[tʃ]	chochera (rain)
s	[s]	sokoro (grandfather)
g	[ɣ]	gooko (grandmother)
w	[w]	weitho (home)
m	[m]	mooka (next year)
n	[n]	omona (child)
ny	[ɲ]	iny'ongo (pot)
ng'	[ŋ]	eng'era (buffalo)
r	[ɾ]	rioba (sun)
y	[j]	iyane (mine).

Among these consonant phonemes, [w] and [j] are positional variants of the vowels /u/ and /i/ respectively. The two sets of sounds are in complementary distribution with the glides occurring before vowels, and the high vowels occurring before consonants or at the end of words; for example:

- (1) eγekeβi-knife
 ekerio-greetings

Also, the voiced stops [b], [d], and [g] only occur as allophones of the voiced continuants /β/, /τ/, and /γ/ respectively, when these are preceded by a nasal (Cammenga 1994). Thus, [b, d, g] and [β /τ/ /γ] are in complementary distribution.

- (2) /Nβaane/ → [mbaané] 'comrade'
 /NtaikeNta/ → [ndaikéenda] 'I praise myself'
 /eNkaNγa/ → [eNkááŋga] 'sheet'

The prenasalized stops included in the above example are made up of a nasal-obstruent sequence. In this study, it is assumed that such a sequence constitutes a single prenasalized consonant. I submit that the two consonants of the sequence fall within one syllable since (a) words can begin with a nasal followed by a consonant (b) words cannot end in a nasal (c) from native speaker intuitions, it is clear that the syllable division comes before the nasal.

Here are examples;

(3) /ekeɾaŋβo/ → [kéráá.mbó] ‘dam’

/Ntimaro/ → [ntí.máɾo] ‘name of place’

/eNtset a/ → [ee.ntséɾa] ‘path’

/iNkio/ → [íí.ŋkjo] ‘morning’

The voicing dissimilation (k → γ and Nk → ŋg) in the first two examples in (3) above has commonly been referred to as Dahl’s law². It is a common feature of Kuria phonology.

Example; ŋkjo – morning

Ntsera – path

1. **Kuria Vowels.** There are 7 vowels in Kikuria which double to 14 due to lengthening with seven contrasting qualities occurring in long and short pairs.

Table 2.2: Kikuria vowels

Short Vowels	Front Unrounded	Central	Back Rounded
High	i		u
Mid High	e		o
Mid low	ɛ		ɔ
Low		a	
Long Vowels			
High	ii		uu
Mid High	ee		oo
Mid Low	ɛ ɛ		ɔɔ
Low		aa	

Source: Cammenga (1994)

These vowels are the main constituents in word formation with many forming prefixes in nouns while forming word ends too.

All Kuria vowels can occur word initially as pre-prefixes and word finally. It therefore follows that they can as well occur syllable initially and finally according to Greenberg (1978: 455).

“...distributional constraints and boundary phenomena that occur at word boundaries often occur at syllable boundaries as well.”

Examples of the Kuria vowels are given below with their brief description and use in words.

/a/ this is an unrounded open low vowel. It is near the cardinal vowel number 4, [a].

It is used in words such as;

[amantʃe] amanche-water

[amato] amato-leaves

/e/ this is an unrounded mid high front vowel. It is close to cardinal number 3, [e].

It is used in words such as;

[ekemoɾi] ekemori-calf

[entʃeta] enchera-path

/i/ this is an unrounded high front vowel. It is close to cardinal vowel 1, [i].

It is used in words such as;

[irihita] irihitha-gate

[itʃinkwe] ichinkwe-firewood

[itiŋi] ithinyi-animal

/o/ this is a rounded mid high back vowel. It is close to cardinal number 7, [o].

It is used in words such as;

[obota] obotha-bow

[mokoɾo] mokoro-old

[ɾioβa] rioba-sun

/u/ this is a rounded high back vowel. It is close to cardinal vowel number 8, [u]

It is found in words such as;

[uruku]	uruku-death
[umukungu]	umukungu-woman
[kuta]	kura-cry

/ɛ/ this is a mid low front unrounded vowel. It is close to cardinal number 3, [ɛ].

It is found in words such as;

[mβanɛ]	mbane-comrade
[niyurɛ]	nigure-i heard

In most cases its used word finally.

/ɔ̄/this is a mid low back rounded vowel. It is close to cardinal number 6, [ɔ̄]

It is found in words such as;

[ɔ̄ŋɛ]	ong'e- u give me
[ɛsɔ̄kɔ̄]	esoko- respect

Table 2.3 Vowel Length:

Long vowels can be either phonemic or derived.

	Front unrounded	Central	Back rounded
High	ii		uu
Mid high	ee		oo
Mid low	ɛ ɛ		ɔ̄ ɔ̄
Low		aa	

Source: Cammenga, 1994

The seven Kuria vowels double to 14 due to vowel lengthening. Vowel lengthening is indicated by doubling of the same vowel.

Vowel lengthening is phonemic in that it brings about a different meaning.

Examples;

- [i – ki – βíta] little finger
- [i – ki – βííta] plastic container
- [tumá] sew

[tuumá] jump

[nará] be acquainted with

[naará] wind around something

Long vowels are derived: phonemic long vowels are not the only source of long vowels in Kikuria. Another way by which vowel length arises is by compensatory lengthening.

Thus, vowels are predictably long in the following two environments;

- a) Before prenasalized stops
- b) After a glide formation has occurred

a) Vowel lengthening before prenasalized stops.

In many Bantu Languages, vowels are lengthened if they occur before prenasalized stops. Such lengthening is found in Kikuria (Cammenga, 1994) and in Luganda, this can be formulated as V – [+long]/ - NC.

Example.

Underlying	Surface	Gloss
/ niNɣeno/	Nyiingeno	now
/ moNto/	moontho	person

2.1.3.4 Kuria Syllable Structure.

Consonants, vowels and units of length combine to form syllables which in turn combine to form words. In Kuria Language, there are several types of syllables found ie. V, CV, VV, CVV. The common syllable type is CV i.e a consonant followed by a single vowel.

Example.

nigure	[niyure]	I have heard
buya	[βuja]	well

2.1.3.5 Kuria nouns

The noun forms in Kikuria canonically consist of a pre-prefix, class prefix and a stem. The pre-prefix vowel is always a copy of the class prefix vowel, as in; /v1 – cv1/. The following are examples of Kuria nouns in singular and plural. They have pre-prefixes and prefixes and are numbered.

Class	Pre-prefix	Class prefix	Example	Gloss
1	O	mo	omontho	person
2	a	βa	aβantho	people
3	o	mo	omotho	tree
4	e	me	emethe	trees
5	i	ti	itiyi	egg
6	a	ma	amayi	eggs
7	e	ye	eyntho	thing
8	i	βi	iβintho	things
9	e	βa	eβatha	duck
10	i	tʃi	itʃiβatha	ducks
11	o	to	otoβayo	hedge
12	i	tʃi	itʃimβayo	hedges
13	a	ya	ayatʃuβa	small bottle
14	u	yu	uyutʃuβa	big bottle

The pre-prefix is always the initial vowel in nouns. But it is sometimes deleted through the process of vowel elision. Represented by the rule;

V → /Ø/ [S[noun-

This rule deletes the initial vowel in nouns when they are used in sentence initial position.

Examples;

aβamura-young men

βamura βae βayakwa- his young men died

itina-name

tina teene tendayotebi- I won't tell you my name

2.1.4.1 English Consonants

As with the work in the Kuria section, this section merely summarises the phonological parameters of English. The first section covers consonants while section two deals with vowels. English has a total of twenty four consonants including two semi Vowels. The following is an inventory of English consonants typically found in different varieties of English. There is a difference between English and Kuria in that where as English does not have prenasalised consonants, Kuria has.

Table 2.4 English consonants

Manner/Place of Articulation	Voice/Voiceless	Symbol	Examples
Obstruents			
a. Stops			
Bilabial	Voiceless	[p]	happy, tap
	Voiced	[b]	bit, rubber, lob
Alveolar	Voiceless	[t]	Hit, writer
	Voiced	[d]	Dip, ride
	Voiced flap	[ɾ]	Writer, rider
Velar	Voiceless	[k]	Looking, tick
	Voiced	[g]	Game, dog, muggy
b. Affricates			
Palatoalveolar	Voiceless	[tʃ]	chuck, butcher, catch
	Voiced	[dʒ]	jug, lodger, fridge
c. Fricatives			
Labiodental	Voiceless	[f]	Fun, loafer, stuff
	Voiced	[v]	very, liver, dive
Dental	Voiceless	[θ]	thin, frothing, death
	Voiced	[ð]	then, bathe
Alveolar	Voiceless	[s]	sin, icing, fuss
	Voiced	[z]	zoo, rising, booze
Palato-alveolar	Voiceless	[ʃ]	ship, lasher, lush
	Voiced	[ʒ]	treasure, rouge

Glottal	Voiceless	[h]	Hop
Velar	Voiceless	[x]	Loch
Sonorants	All are voiced		
Nasals			
Bilabial		[m]	man, tummy, rum
		[n]	nod, runner, gin
		[ŋ]	drinker, thing
Liquids			
Alveolar lateral		[l]	long, mellow
Alveolar liquid		[r]	run, very
Glides			
Palatal		[j]	yes, yellow
Labial velar		[w]	with, woo

Source: Davenport (2005)

2.1.4.2 Vowels in English Language

The English vowel inventory consists of vowels and diphthongs (Gimson 1980, Ladefoged 1982, Roach 1993, Jensen 1993). There are twelve vowels, eight diphthongs and five triphthongs; all vowels are typically voiced. There is a three term classification for them; the height of the tongue from the articulators, the horizontal distance, and the attitude of the lips. Thus they are referred to in terms of height, backness and rounding.

At some point, though, two vowels differ in length. For instance, a colon (:) placed after the vowel indicated that it is long.

Table 2.5 English Vowels

Description	Symbol	Example in words
High front vowels	i:	See
	ɪ	Sit
Mid front vowels	e:	Pet
	ɛ	Bed
Low front vowels	æ	Rat
	a	Mary

Low back vowels	ɒ	Father
	ɑ	calm, dog
Mid back vowel	o:	Goat
	ɔ:	bought, cause
High back vowels	u:	Shoe
	ʏ	Put
Central vowels	ə	Mother
	ɜ	bird, nurse
	ʌ	cup, luck

Source: Davenport (2005)

2.2 Theoretical framework

The theoretical framework that was adopted for this study is Natural Generative Phonology (NGP). NGP is part of the Generative Phonology (GP) which began with Noam Chomsky's effort to describe the morphophonemics of Modern Hebrew. NGP was developed in the 1970s by Vennemann and Stampe to examine the features and the natural character of segment classes and the processes that apply to them. This theory was chosen because it enables the analyst to make concrete predictions about sounds of natural languages (Hooper, 1976). NGP also looks at phonology with full recognition of morphology. The theory examines the interface between these two levels of linguistic study. NGP came up as a solution to the abstractness of generative phonology, which was incapable of grasping what is natural and universal; NGP therefore focuses on the relationship between abstract underlying representations and surface structures, i.e. derivations, rules, alterations and underlying forms.

The primary Tenets of NGP are;

1. The true generalization condition
2. The no ordering condition
3. The strong Naturalness condition

These three ensure that NGP operates within a number of principles. One of them states that a form that is posited as an underlying form ought to have surface manifestations, if it is to be accepted as a correct form.

The true Generalization condition emphasizes that the rules that native speakers formulate about their language relate surface forms to other surface forms and so such rules cannot be abstract. This implies that NGP allows neither abstract segments nor abstract rules in morphophonemics. Word final phonation through insertion of vowels in Kuria language would be perfectly accepted as a process in NGP since it expresses a true generalization; that all word finals are made of vowels.

The No-ordering condition restricts extrinsic ordering of rules so that the rules apply sequentially and to any form that meets their structural descriptions. The No-ordering condition came in handy because this study formulated phonological rules to explain the changes in sounds when loan words enter Kuria. It was of value in this study especially in examining the morphophonemics of borrowed words in Kuria by posing that when a certain condition has been met then a certain rule has to apply, and special rules or parts of rules always apply before the general rules.

The strong naturalness condition requires that there be a relationship between the underlying and surface forms. This direct correspondence between forms showed the changes that are taking place. NGP holds that, the phonological representation of the lexicon, and the idiosyncratic phonetic properties of the morpheme be related in a non arbitrary way. This was an important condition in the comparison of loan words in Kuria from English written in gloss and when phonetically transcribed.

In NGP, there are a number of rules which are deemed very important for this study. The first category of rules refers to phonetically motivated rules. These take into account only phonetic information in their environments, such as syllable boundaries. These rules are not only natural but also universal, they are regular and productive; they apply whenever their structural description is satisfied. They consist of natural rules such as assimilation rules, strengthening and weakening rules. For example as Hyman (1975; 156-161) reports, such rules include the tendency of velar non continuants to palatalize before high front vowels. For instance, in a word like 'gill', the velar non continuant sound /g/ is likely to palatalize when it comes before a high front vowel /i/, in English. These rules were useful in identifying the morphophonemic rules that the English loan words abide by to fit into Kuria.

The second category of rules is called the morphophonemic rules. They take into account morphological and syntactic information such as morpheme boundaries, morpheme classes, and lexical categories and they are language specific. For example, the regular morpheme marker for the plural in the English language is in word final position as in 'bags' with 's' denoting the plural. In Kuria, the plural morpheme marker is in word initial position as /itsibagi/ with the /itsi/ in the initial position denoting the plural.

The third category of rules in NGP is that of Via rules. These rules relate one lexical item to another without having to claim that one is derived from the other. They express phonological relations between lexical items. For example; /aj/, -/i/ relating the words 'divine' and 'divinity'. The forms 'divine' and 'divinity' are entered in their full form in the lexicon and assumed to be linked by the Via-rule above. Hooper (1976) reports that the forms related by Via rules are entered as separate items in the lexicon and the rules exist to show that there is some relationship in the two terms although there can be no claims that one is derived from the other.

The fourth category is that of word formation rules which specify what morphological elements can constitute a word and the nature of arrangement within the word. These rules were used in explaining the word formation processes that the loan words from English to Kuria undergo in order to be integrated into Kuria lexicon.

Finally, the fifth category is that of syllabication rules. These rules assign syllable boundaries to the phonological string or sequence. These came in handy when looking at the syllabic modifications that take place when loan words are nativised into Kuria lexicon.

CHAPTER THREE

METHODOLOGY

This chapter is divided into two parts; data collection and data analysis. The data collection part examines the research design, the area of study, the population, the sample size, sampling procedures and the data collection tools. Data analysis covers the procedure for analysis, phonological and morphological analysis.

This study was conducted in two steps, the first step involved collecting words of English origin that have been borrowed and are used in Kuria language, while step two involved finding out the processes through which they are nativised to fit into Kuria structure after which rules were formulated.

3.1 Research Design

The research design adopted for this study was descriptive survey whereby the researcher went to the field and collected data from the subjects, after which she analysed and described the findings. The subjects were native Kuria speakers who were drawn from six different fields of occupation.

3.2 Data Collection

The data required for this study was an inventory of words of English origin that are used in a native form by Kuria speakers in their day to day interaction. A list of sixty English words that have been borrowed into Kuria, was collected from six domains namely; education, religion, health, domestic life, the police force, and motor vehicle engineering. The domains were selected due to their exotic and formal nature which renders them more receptive to loan words. The words were from the noun class only; this is because nouns are used to refer to basic aspects of human life, and are, therefore invariably prone to borrowing whereas function words like pronouns and numbers, are usually not borrowed. The borrowings were collected in the field where each of the domains is practised. This enabled the researcher to reduce the cost of having to transport respondents to a common place and to ensure that the usages were authentic to the domain of usage.

3.1.1 Area of study

The study took place in Ntimaru Division, Kuria East District. Kuria East District borders Kuria West to the North, Transmara District to the South, and Tanzanian Republic to the East. The district was chosen because Kuria, the native language, is widely used. Kuria East is made of two divisions: Ntimaru and Kegonga. Either of these would have yielded the required results. However, Ntimaru was chosen rather than Kegonga because it is in an urban setting and hence provided easy access to the places where the domains are being practiced, whereas Kegonga is more of a rural setting.

3.1.2 Population.

The target population consisted of native Kuria speakers who practice in the six fields of occupation in Ntimaru Division of Kuria East District. This enabled the researcher to realize a representative group of the native Kuria speakers. From this, a sample was selected. It's from this sample that the loan words were got in the form in which they are used in Kuria language.

3.1.3 The sample and sampling procedure

The study made use of thirty subjects; five subjects were selected from each of the six domains. The key factor employed was that they were Kuria native speakers. The researcher employed both random and purposive sampling procedures to select the sample from the population. Purposive sampling enabled the researcher to get the cases with the required information as stated in Mugenda and Mugenda (1999). It also enabled the selection of the specific places where the domains are practised. Within each of these locations, simple random sampling was employed in getting the actual subjects. This was done by assigning numbers to the subjects in the domain in each of the specific places where a particular domain was being practised, and picking the numbers randomly. Each subject was given equal chance to be part of the sample as shown in the table below.

Table 3.1: Sample selection design.

Domain	Number of subjects	Place of practice
Education	5 teachers	Kwibanacha primary school
Health	5 health workers	Ntimaru health centre
Religion	5 worshipers	Matare SDA church
Police administration	5 policemen	Ntimaru police post
Motor vehicle engineering	5 mechanics	Ntimaru garage
Domesticity	5 hotel attendants	Ntimaru Sadaams hotel
Total; 6 domains	30 subjects	6 places

The places were selected purposively because the subjects were deemed to have the required data. The five subjects in every domain were enough to give the required data.

3.1.4 Instruments.

Data was collected by use of focus group discussions and tape recording. The two tools were selected because Kikuria has not been extensively studied, therefore it was realized that the required data could not be found in books but with people in their workplaces.

3.1.4. 1 Focus Group Discussion.

Six focus groups were formed. Each consisted of five members from the same domain. The participants were informed of the time and place of group session prior to the focus group discussion. They were briefed on the importance of their contribution to the research. During the group discussions, participants sat around a table, a move which helped to ease interaction. The researcher performed the role of focus group moderator guiding the proceedings and dealing with group dynamics. In each session, members were asked questions and given time to discuss them according to their domain. For example; the subjects drawn from the education domain were asked questions from the education sector only. There were five questions per domain, and each session lasted for two hours.

3.1.4. 2 Tape Recording

Each discussion session was tape recorded to capture details which were later retrieved, transcribed and analysed. Tape recording ensured an accurate and reliable storage

of data which was later retrieved easily. It also ensured that proper transcription according to articulation is arrived at.

3.2 Data analysis

The taped material was later replayed, and the loan words in the data collected were identified through a systematic comparison of the lexical items occurring in English and Kuria. Identification of the loan words was aided by the fact that there is a difference between Kuria and English; the two are not related nor did they share any cultural experience before the coming of missionaries and British colonialists. If a word used in Kuria showed reference and correspondence to an English Language item then it was a loan word. Once the loans were identified, they were written down in gloss both in English and in Kuria. Thereafter, the loan words and their English equivalents were transcribed into phonemic form using the International Phonetic Association (IPA) symbols.

3.2.1 Procedure for data analysis.

Once transcription had been done, analysis took place in two ways;

3.2.2 Phonological analysis

Focus was on phonemes and their phonemic properties i.e. place, manner of articulation and voice. The differences in the borrowings initially in English language and after adaptation has taken place were identified, the changes were highlighted and the processes involved were described. Thereafter, the rules involved were formulated, described and presented.

For instance; the word 'vest' which is borrowed into the domestic domain took this procedure.

English	gloss	Kuria	gloss
/vest/	vest	[eβesiti]	eβesiti

From the above;

- (a) The voiced labio-dental fricative /v/ has been realized as the voiceless bilabial fricative /β/ the rule will therefore be [v→β]/ V-V.
- (b) There is vowel /e/ insertion; nouns in Kikuria have a pre-prefix, and for the loan word 'vest' to fit into this system it had to acquire this characteristic to become [eβesiti].

(c) Kuria takes the syllable type cv i.e. every consonant is followed by a vowel. This is not so in English. Thus, the loan word ‘vest’ became ‘eβesiti’ to be adopted into Kuria structure.

3.2.3 Morphological analysis

The words were broken into morphemes and roots for morphological analysis. Attention was on singular and plural morphemes, thus focus was on number to determine the changes that the loan words go through once in Kuria to mark plural and singular. This was done with emphasis on Kuria morphological rules. Any word formation processes involved in the changes that loan words undergo were considered.

For example; the noun vest which falls in class nine/ten of Kuria noun classification (Mwita, 1996) took this shape;

English		Kuria	
Singular	plural	singular	plural
vest	vest-s	eβesiti	e-tʃi -βesiti

From the above;

The morpheme -s that marks number in English occurs at word final position while in Kuria it, -tʃi-, is at the initial position after the pre-prefix e-, therefore, the loan word takes the Kuria structure by having the Kuria morpheme conjoined to it.

CHAPTER FOUR
DATA PRESENTATION AND ANALYSIS

This chapter presents the results of the study. It presents the sound changes that take place when loan words from English are being adapted into the Kuria system of speech and an analysis of these changes.

4.1 Data Presentation

Sound changes

This section shows the changes that take place when words borrowed from English are used in Kuria language. The first part presents the consonantal changes, while part two shows the vocalic changes. In each case, there is the English transcribed form then the gloss form, after which there is the Kuria transcribed form and the Gloss form.

4.1.1 Consonantal changes

Linguistic systems and their phonetic inventories vary. English has some consonants not found in Kuria thus when English words are borrowed into Kuria, such consonants are dropped or they undergo changes and adopt Kuria consonants to fit into the Kuria sound system. The data is presented under the domains studied.

Motor vehicle Mechanics

English	Gloss	Kuria	Gloss
/gləuv/	glove	[iyutoβu]	igurobu
/tʃeɪndʒ/	change	[itʃentʃi]	ichenchi
/reɪdiətə/	radiator	[eretita]	erethitha

In motor vehicle mechanics most sounds have undergone substitution with the voiced consonants in English words being substituted for voiceless sounds in Kuria. For instance

[β] for [v]

[tʃ] for [dʒ]

[t] for [d]

Domestic

English	Gloss	Kuria	Gloss
/tai/	tie	[etaje]	ethaye
/trei/	tray	[eturɛji]	ethureyi

In this case, there are consonantal and vowel changes that have taken place

For instance there are some vowels that have been substituted for Kuria consonants.

For instance; [j] for [i], in the above words.

Education

English	Gloss	Kuria	Gloss
/sku:l/	school	[isukuru]	isukuuru
/kla:s/	class	[eketasi]	ekerasi
/dIgrI/	degree	[itiyiti]	ithigiri
/dʌstə/	duster	[etasita]	ethasitha

Here the changes include the breaking of the consonant clusters and inserting a vowel in between two consonants, as in;

sk becoming **suku**

gr becoming **giri**

st becoming **sita**

kl becoming **kera**

Health

English	Gloss	Kuria	Gloss
/wɔ:d/	ward	[ewoti]	ewothi
/lɪnɪmənt/	liniment	[irimenti]	irimenthi

In this case we have final vowel insertion in cases where there were no vowels. For instance;

/d/ becoming ti

/t/ becoming ti

Police administration

English	Gloss	Kuria	Gloss
/stɔ:/	store	[isitoto]	isithoro
/rikru:t/	recruit	[itikirutu]	irikiruthu
/sel/	cell	[eseti]	eseri
/pistɔ:l/	pistol	[iβisitori]	ibisithori

Here, there are initial vowel insertions where there were no vowels initially. For instance;

/r/ becoming iri

/s/ becoming isi

Religion

English	Gloss	Kuria	Gloss
/gaun/	gown	[eŋgauni]	eŋgauni
/sækrɪmənt/	sacrament	[esekarameni]	esekarameni
/pa:stə/	pastor	[omobansita]	omobasitha

In this domain there is consonant nasalisation where none existed before.

For instance;

/g/ becoming /ŋg/

/s/ becoming /ns/

4.1.2 Vowel changes

Motor vehicle mechanics

English	Gloss	Kuria	Gloss
/gləʊv/	glove	[iguɾoβu]	igurobu
/tʃeɪndʒ/	change	[itʃentʃi]	ichenchi

In this case diphthongs in English words have been substituted for single vowels in Kuria. As in;

/əʊ/ becoming [o]

/eɪ/ becoming [ɛ]

Domestic

English	Gloss	Kuria	Gloss
/skɜ:rt/	skirt	[eseɣeti]	esegethi
/glɑ:s/	glass	[iyɪɾasi]	igirasi

Here, long vowels in English words have been shortened when these words are adapted into Kuria language.

For instance;

/ɜ:/ becoming [ɛ]

/ɑ:/ becoming [a]

Education

English	Gloss	Kuria	Gloss
/kɒlɪdʒ/	college	[eɣotetʃi]	egorechi
/ru:lə/	ruler	[ɪɾuta]	irura

In this domain vowels in English words are being substituted with others in the Kuria form.

For instance;

/i/ becoming [ɛ]

/ə/ becoming [a]

Health

English	Gloss	Kuria	Gloss
/hɒspɪtəl/	hospital	[isiβitati]	isibithari

In this domain, some vowels are deleted completely and in their place others inserted or left blank.

For instance;

/o/ has been deleted.

Police administration

English	Gloss	Kuria	Gloss
/stɔ:/	store	[isitoro]	isithoro
/krəʊn/	crown	[iɣirani]	igirani
/rikru:t/	recruit	[itikirutu]	irikuruthu
/pistɔl/	pistol	[iβisitorɪ]	ibisithori

In this case, vowels are inserted word medially where there were only consonants in the English word.

For instance;

/i/ between /s/ and /t/

/i/ between /r/ and /k/

/əʊ/ becoming [a]

4.2 Data analysis.

English and Kuria languages have different phonetic constructions. In English it is easy to distinguish voiced from voiceless sounds but in Kuria there are sounds that take the position of both voiced and voiceless English counterparts. Natural languages have predictable phonetic alternations between sounds which occur under specific conditions determined by the environment that the sounds occur. The changes are a central part of what native speakers know about their language and are caused by some phonological processes.

Thus in this chapter the processes that cause changes when English words are borrowed into Kuria language are presented and changes that result from them are characterised by means of rules. Natural Generative Phonology came in handy because it is the identification of such changes and processes behind them, the formulation of rules to capture them that is the main thrust of NGP. The changes occur whenever the phonetic environment is met. For instance, in English the words 'pad' and 'bad' can be distinguished from each other due to the voicing contrast of the initial bilabial obstruents represented by [p] [b] yet in Kuria the voiceless bilabial fricative [β] is used for both the voiced and voiceless sounds thus making it possible for the changes to take place whenever a word is borrowed from English to Kuria and has the two sounds as shown below.

English	Gloss	Kuria	Gloss
/bænd/	band	[eβendi]	ebendi
/pa:stə/	pastor	[omobansita]	omobasitha
/pɪstɔ:l/	pistol	[iβisitorɪ]	ibisithori
/pləstə/	plaster	[oβorasita]	oborasitha
/opəreɪʃn/	operation	[oβotesoni]	oporesoni
/baɪrəʊ/	biro	[eβeɪrɔ]	ebeiro
/zɪp/	zip	[isiβu]	isibu
/bʌs/	bus	[eβasi]	ebasi

From the above data it is clear that the words that have been borrowed from English to Kuria undergo some changes.

That a sound in a loan word lacks in Kuria language does not stop the borrowing, instead the word is borrowed but nativised to fit the sounds found in Kuria language, hence the sounds [p] and [b] have taken their Kuria equivalent [β].

Vowel and consonant word endings

In Kuria language words end in vowels but this is not the case in English where we have up to three consonant combinations at the end of a word as in *coughs*. When a word with such combinations is borrowed into the Kuria system it has to drop the consonant endings and adopt a vowel as shown below;

English	Gloss	Kuria	Gloss
/bæptɪzəm/	baptism	[εβatɪso]	ebathiso
/ʃɜ:t/	shirt	[esati]	esathi
/sæ/ɡaʊn/	gown	[egauni]	egauni
/sækrɪləmənt/	sacrament	[esekarameni]	esekarameni
/ɡɜ:d/	guard	[omoyati]	omogathi
/tʃo:k/	chalk	[itʃoki]	ichoki
/wɜ:d/	ward	[ewoti]	ewothi

Plural marking

Other phonetically and morphologically influenced changes occur in pluralization of singular words borrowed from English. In English the plural marker occurs in word final position while in Kuria it occurs in word initial position. A plural English word has to undergo changes to fit into the system whenever it is borrowed into Kuria as shown below;

English		Kuria	
Singular	plural	singular	plural
vest	vest-s	eβesiti	i-tʃi -βesiti

From the above;

The morpheme -s that marks number in English occurs at word final position while in Kuria it, -tʃi-, is at the initial position, therefore, the loan word takes the Kuria structure by having the Kuria morpheme conjoined to it.

CHAPTER FIVE

DISCUSSION OF FINDINGS

Introduction

This chapter is devoted to discussing the research findings of this study. It analyzes the phonological and morphological nativisation of English loans in the Kuria Language. The preceding chapter (Chapter Four) discussed the phonological and morphological changes of English Loan words in Kuria, in particular the sound adaptation.

This current chapter therefore, handles phonological and morphological processes that account for phonological and morphological adaptations from the loaner language (English) into the receiving language (Kuria). This is because for English words to be accepted into the Kuria linguistic environment, they have to conform to certain stringent phonological and morphological constraints. The chapter has two sections, namely, phonological and morphological patterns. Each section is again further divided into manageable sub-sections.

The phonological section comprises the following sub-sections; Resyllabification, Epenthesis/insertion, sound substitution and sound deletion. The morphological section has the following sub-sections: handling of nouns and plurality and singularity in loan words. The phonological section entails looking at how native speakers use phonological rules to handle complex structures, thus nativising English words to suit Kuria phonological rules. It also accounts for the handling of consonant clusters and segments not recognized in Kuria.

The morphology section involves the handling of noun prefixes and pluralization. In handling the phonological and morphological processes (accounting for nativisation of English words entering into the Kuria language), the generative rules adopted (as already been demonstration in chapter three), P-rules, MP-rules and word formation rules come in handy. Since the discussion is interlanguage, analysis adopts the 'input-output' approach. In this regards all words with English phonology and morphology are an input to be processed in the Kuria environment and the result is the output.

5.1 Phonological Nativisation

This section, of Chapter Five, handles how different sound systems, from English to Kuria are manipulated to account for the way Kuria speakers articulate English loans. Since no two languages share the same phonological system, this indicates that English phonological system is bound to be different from the Kuria phonological inventory. As a result, specific phonological processes are discussed, that account for how first language Kuria speakers adapt English loans into their language, without necessary breaching their language rules.

5.1.1 Resyllabification

This is a process of reorganizing the syllable tiers (CV and segment tiers) from the English pattern to a pattern acceptable by the Kuria phonology. Kuria accepts CV syllables while English recognizes CVC, CCV and other syllable structures. This implies that nativisation of English loans in Kuria entails reorganization of tiers that characterize English syllables to suit the Kuria syllable typology. Resyllabification entails handling complex clusters for instance /CCV/ not recognized in Kuria. As an example, the English word “change” [tʃeɪndʒ] has an onset consonant (tʃ) plus vowel segments (VV) plus a consonant coda (ndʒ) hence regarded as having a monosyllabic (CVC) structure. This syllable is characteristic of the English language because of the presence of the coda. This coda is not acceptable in Kuria because there are no CVC syllabic word patterns. Thus a word like ‘change’ has to under reorganization for it to adapt into the Kuria structure. Kuria accepts CV syllabic patterns as shown below;

“esathi”	[esati]
“emasini”	[emasini]
“isipu”	[isiβu]
“imisa”	[imisa]

The CV in Kuria is characterized by an onset and a simple nucleus such a syllable has no coda as demonstrated above. This implies that the final segment (rightmost) is a vowel and not a consonant.

Resyllabification is therefore a complete process that entails reorganization of the English syllable structures, to enable words fit into the Kuria structure. This is achieved by adopting nativisation processes of breaking consonant clusters and segments not recognized

in Kuria. English has both simple and complex syllable nucleus. Simple nuclei contain pure vowels as in /spun/ “spoon,” while complex ones contain either diphthongs or triphthongs as in ‘ground’ “point’ “pound.” Kuria on the other hand does not have such patterns. Therefore while the simple nucleus is permissible in Kuria the complex one is not. In this regard, words of English origin which have complex peaks are therefore resyllabified to fit into Kuria structure as follows;

English	Gloss	Kuria	Gloss
/gləuv/	glove	[iguroβu]	igurobu
/tʃeɪndʒ/	change	[itʃentʃi]	ichenchi
/gaun/	gown	[egawuni]	egawuni
/tai/	tie	[etaje]	ethae

In the word sacrament /sækrləmənt// the /Iə/ (double vowel sequence) is broken and in its place the single vowel [a] inserted as shown below;

English	Gloss	Kuria	Gloss
/sækrləmənt/	sacrament	[esakarameni]	esakarameni

In summary therefore, when English words, with complex peaks, (in particular diphthongs and triphthongs) are loaned to Kuria, the complex peaks are broken.

5.1.2 Epenthesis

Epenthesis is a phonological process with which sounds were dealt with in Kuria. Crystal (1997:45) defines epenthesis as the “intrusion or insertion of an extra sound, medially or finally in a word.” In Kuria there is vowel epenthesis during adaptation of loan words of English origin. In the following sections, epenthesis of different sounds is discussed.

5.1.2.1 Epenthesis of /i/

The vowel /i/ is epenthesised to break the consonant clusters in English loan words as demonstrated below.

English	Gloss	Kuria	Gloss
/glɑ:s/	glass	[iyitasi]	igirasi

/trei/	tray	[etireji]	ethireyi
/sku:l/	school	[isukuru]	isukuru
/kla:s/	class	[ekerasi]	ekerasi

The above changes were also accompanied by the epenthesis of the vowel [i] at the end of words since Kuria does not allow coda consonants at the end of the syllable. The input in this process was English words like “cell”, “clinic” “liniment”, “class,” “ward”.

English	Gloss	Kuria	Gloss
/kla:s/	class	[ekerasi]	ekerasi
/klɪnɪk/	clinic	[ɣitɪnɪki]	giriniki
/wɔ:d/	ward	[ewoti]	ewothi
/lɪnɪmɛnt/	liniment	[itɪmeni]	irimeni]

The introduction of a new CV – pattern changes the English CVC typology to a CV typology, which is acceptable in Kuria.

5.1.2.2 Epenthesis of the palatal approximant [j].

In order to break diphthongs and triphthongs, not necessarily having [+ round], [+ back], [u], the alveo–palatal [j] is epenthesised. To nativise English words with such complex peaks, breaking the diphthongs and triphthongs is done. The rule that supercedes all processes is that epenthesis of the alveo-palatal approximant is done when there is a V element that has the same feature configurations with the glide [j].

The scenario of /i/ for /oi/ accepts epenthesis of the glide [j] between [o] and [i] vowels occurring in sequence. The vowel /i/ and the glide [j] have the following feature values: [j]/ [i]: [+ sonorant], [-round] .The glide [j] thus demonstrates similar feature configurations with the vowel [i] that is why it is inserted where /i/ could also be. Epenthesis of the alveo-palatal in the environment where there is a diphthong breaks the double vowel sequence as demonstrated below;

English	Gloss	Kuria	Gloss
/tai/	tie	[etaje]	ethae

/trei/	tray	[etureji]	ethureyi
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The above examples demonstrate breaking diphthongs by inserting the alveolar palatal approximant [j]. The general pattern is that [j] can be preceded by [i] as in /ai/,/ei/,/oi//ui/. The glide is also epenthesized when it is preceded by the vowel /i/ as in /iə/,/ie/, /ia/ and /iu/.

English	Gloss	Kuria	Gloss
/trei/	tray	[etureji]	ethureyi
/skwea/	square	[isikeja]	isikeya
/gia/	gear	[iyija]	igiya

By breaking diphthongs, the study demonstrates how CVC syllabic words (English) are changed to CV syllabic (Kuria) words. This is because Kuria does not recognise CVVC or monosyllabic words that have vowel sequences and the insertion of the glide [j] enables the breaking of diphthongs to make it easy for words to adapt into the Kuria language.

5.1.3 Phonological processes to handle consonant clusters

Vowels were epenthesised by Kuria speakers to deal with the English consonant clusters. Vowel epenthesis is the insertion of a vowel into the word with consonant segments. Vowel epenthesis was intended to satisfy the syllable structure of the Kuria language. In other words, vowel epenthesis occurs together with resyllabification process. The English loans do not conform to the syllable structure of the Kuria language because the English language has consonant clusters whilst Kuria does not.

Kuria language does not recognize consonant clusters but rather complex (CC) or consonants that are co-articulated in a CC sequence. Kuria only recognizes consonants in a CC sequence articulated as a unitary segment. Kuria regards a unitary treatment of consonant segments by considering double consonants to be one complex consonant rather than a cluster of consonants. If words that are borrowed from English have CC clusters, then there should be co-articulations for them to be recognized in Kuria (homorganic or adjacent elements). If a CC sequence exists articulated from positions far apart, then there ceases to be co-articulation but these are rather referred to as clusters. This means that Kuria does not

recognize non co-articulation of CC, without a vowel in between them. This is a phonotactic constraint that restricts cluster consonants in Kuria.

Loans (with clusters) therefore do not conform to the syllable structure acceptable in Kuria. When English words are borrowed into the Kuria phonological environment, vowel epenthesis is done to come up with phonologically acceptable words. There are generally three types of vowel epenthesis applied to English loans that are entering into the Kuria inventory to deal with unacceptable consonant clusters and these are initial, ‘mid word’ and ‘Paragogic’ vowel epenthesis.

5.1.3.1 Word Medial vowel epenthesis

‘Mid-word’ vowel epenthesis is defined as “the insertion of vowels in the middle of a word”. This was done to break the English cluster consonants that are not acceptable in Kuria. This is demonstrated by the illustrations that follow:

Epenthesis of the central vowel [a]

In the examples below, the consonant sequence is broken because it is not acceptable in Kuria. Vowels are then epenthesized mid word and others paragogically as shown.

English	Gloss	Kuria	Gloss
/dIgrI/	degree	[itiyiti]	ithigiri
/klInIk/	clinic	[iyitiniki]	igiriniki
/fræktʃə/	fracture	[uβutayitʃa]	uburagicha
/rikru:t/	recruit	[itikututu]	irikuruthu

Epenthesis of the back vowel [o].

The rule is that [o] can be inserted in harmony with the preceding or proceeding vowel or consonant or both, as exemplified by the word /opareiʃn/ “operation,” [oβotesoni] “oporesoni”

In this illustration the epenthetic vowel [o] is in harmony with both the vowels and the consonant [p], since they are both labial. The other vowels in the word have the feature [+labial], hence [o] becomes the only applicable epenthetic vowel. The epenthetic vowel [o] is therefore, in harmony with the preceding [o], the proceeding vowel [o] and bilabial [p].

The insertion of [o] alters the syllable structure from the CVC to CV acceptable in Kuria. The closed English syllable changes to the acceptable open CV Kuria syllable. The introduction of the vowel [o] brings in the concept of open syllables, a characteristic of the Kuria language. In general, vowel epenthesis on English words creates open syllables.

Epenthesis of the back vowel [u].

Vowel /u/ is inserted in the consonant cluster /bl/ or [pl] this is because vowel [u] and consonants [b] and [p] are labial. The resulting constructions are shown below;

/plastə/	plaster	[uβurasita]	uburasitha
/blankeit/	blanket	[uβurengeti]	uburengethi
/fræktʃə/	fracture	[uβurayitʃa]	uburagicha

Other examples of epenthesis in loan words

Kuria speakers use vowels [i] [o] [u] in between consonant clusters since Kuria does not allow consonant sequence. Examples are shown below;

Examples are given below;

English	Gloss	Kuria	Gloss
/hosptəl/	hospital	[isiβitari]	isibithari
/bæptɪzəm/	baptism	[eβatiso]	ebathiso
/sku:l/	school	[isukuru]	isukuru
/pa:stə/	pastor	[omobasita]	omobasitha

The insertion of the various vowels changes the English syllabic structures CVC to CV. In other words the change is interpreted as resyllbification from a CCV /sk/ to a CVCV /suku/ type. This entails changing the word from a closed English syllable to an open Kuria syllable.

Paragogic vowel epenthesis

Paragogic vowel epenthesis is vowel insertion at the end of a word. This means that the epenthetic vowel becomes the last segment of a segmental tier in a word. English words have closed syllables /CVC/ whilst Kuria has open syllables [CV]. This means that the Kuria syllable is exclusive of the coda, as already been established in previous chapters. Epenthesis

of this nature (paragogic) is done to open closed syllables, in the same way and manner in which vowel epenthesis at the middle of a word opens closed mid-word syllables. The only difference is that paragogic epenthesis handles codas in general. This is highlighted by the following few selected examples:

/net/	net	[eneti]	enethi
/tɛlviʒn/	television	[etɛtɛβisoni]	etherebisoni
//pəreid/	parade	[ɛβatɛti]	ebarethi
zip/	zip	[isiβu]	isibu
/baɪbl/	bible	[ɛβaiβo]	eibaibo

Vowels inserted above are [u], [o] and [i]. Vowels [a] [e] and [i] are inserted preceded by a coronal consonant.

Example, [t] in

“plaster” [oporasitha]

“pastor” [omopasitha]

A coronal is defined by Crystal (1997:94), as a sound “produced with the blade of the tongue raised from its neutral position. Sounds that are described as coronal are alveolar, dental and alveo – palatal. The articulation of these sounds is opposed to labial and velar consonants that are produced with the tongue in its natural position [-cor].

Initial vowel addition

English words borrowed into Kuria language with a consonant at the initial position have a vowel being inserted before the consonant to fit into Kuria prefixation rule structure.

The data below illustrates this;

English	Gloss	Kuria	Gloss
/laʊrɪ/	lorry	[erori]	erori
/petrɔɪ/	petrol	[ɛβetɛtoti]	ebetherori

Insertion Predictability

The best predictor for the choice of the epenthetic vowel is the place of articulation of the consonant preceding to the epenthetic vowel position. In the example of the word 'team' [itimu] for example, the epenthetic vowel [u] immediately follows a labial phonetic environment, [labial + u]. This means that the epenthetic vowel, [u], and the preceding onset consonant, [m], have a similar 'place of articulation' [labial], hence similar features.

The above phonological principles account for the various paragogic vowel epenthesis processes that occur with the English loans during nativisation. The introduction of a vowel at the end of a word also results in the creation of new CV syllables. Simple peaks also appear at the end of words rather than the coda. This means that the English CVC syllable structure is changed to CV, which is recognized in Kuria. English words that enter into the Kuria language therefore undergo vowel epenthesis to be acceptable in the Kuria linguistic environment.

Consonant epenthesis/ insertion

When borrowing takes place, some consonants are inserted where none existed before in their original English language form. This is done to make the borrowings adapt into the CV kuria syllable structure. The commonly inserted consonant is the palate- alveolar glide [j].

Examples are shown in the data below;

English	Gloss	Kuria	Gloss
/giə/	gear	[eyeja]	egeya
/tai/	tie	[etaje]	ethaye
/skuea/	square	[isikeja]	isikeya
/stɔ:/	store	[isitoro]	isitoro
/kə/	car	[ekata]	ekara

5.1.4. Handling Sounds not recognized in Kuria

There were certain sounds existing on English loans that were not recognized in Kuria. Two approaches were adopted to handle this problem, namely substitution and deletion.

5.1.4.1 Sounds deletion

Deletion can be defined as the removal of a sound as opposed to epenthesis which is insertion.

Consonant deletion

Loan words coming into Kuria language may introduce unacceptable consonant clusters which may be considered marked by the native system. Kuria makes such structures conform to the native system through processes like deletion. Consonant deletion is a linguistic process that manipulates the whole segment and the whole feature matrix. Deletion involves a consonant becoming \emptyset (zero). It is totally eliminated from its original position and not replaced by any other. Sounds that undergo deletion are those that do not occur in Kuria sound system. For instance the /h/ sound in English is normally deleted from words borrowed into Kuria as shown below;

English	Gloss	Kuria	Gloss
/hɒspɪtl/	hospital	[isɪβɪtari]	isibithari

In other cases deletion occurs in word final position, this is done to remove the coda structure in English and introduce the coda-less Kuria structure, as shown below;

English	Gloss	Kuria	Gloss
/sækrɪəmənt/	sacrament	[esakvɾamɛnɪ]	esakurameni
/lɪnɪmənt/	liniment	[ɪɾɪmɛni]	irimeni
/mɪsəl/	missal	[ɪmɪsə]	imisa

Vowel Deletion

Vowel deletion occurs when English words are borrowed into Kuria language, because of the differences in sound inventories between the two languages. Some vowels are deleted word medially while others are deleted word finally. The most affected categories are those that occur as diphthongs or triphthongs. Such vowels take the syllable form CVV or CVVV. Since Kuria has no triphthongs; and since most syllables occur in CVCV forms, such structures are broken down and the words are customized to acquire the Kuria syllable structure.

The data below shows this:

English	Gloss	Kuria	Gloss
/rɛɪdɪɛɪtə/	radiator	[ɛɾɛtɪtə]	erethitha

/bairəu/	biro	[eβejito]	ebeiro
/skuea/	square	[isikeja]	isikeya
/sækrləmənt/	sacrament	[esakarameni]	esakarameni

From the above data, several vowels have been deleted. The general rule states that, a vowel is deleted when it appears in sequence with another vowel. Thus instead of having two vowels in a sequence only one remains. However there are cases when a vowel is deleted when it precedes another for example;

English	Gloss	Kuria	Gloss
/rɛɪdiɛɪtə/	radiator	[ɛɾɛtita]	erethitha
/bairəu/	biro	[eβejito]	ebeiro

5.1.4.2 Sound substitution

Substitution refers to the replacement of one linguistic item by another at a particular place in a structure. Segments that were not recognized in Kuria were replaced by those that were recognized. One characteristic of Kuria language is that most sounds are voiceless and there is little pairing in terms of the glottis' characteristics. On the contrary, except for nasals, [m, n, ŋ], liquids [r, l], glides [j, w], all of which are voiced and the voiceless glottal fricative [h], English has both voiced and voiceless sounds which are paired into phonological oppositions. For instance, the voiced bilabial stop [b] is paired with its voiceless counterpart [p], /s/ with /z/, /v/ with /f/ /g/ with /k/ and others.

Since voiceless sounds in Kuria do not have their voiced counterparts, when borrowing occurs, English words with voiced sounds have these sounds being substituted for the voiceless ones. It is notable that, there are other sounds in English which are not found in Kuria, in such a case those sounds are substituted for those close to them in terms of characteristics. There were two ways in which substitution is done, in the process of nativising English loans entering into Kuria. These are consonant and vowel substitution.

Consonant Substitution

Substitution is done to replace English consonants that do not exist in Kuria. There were a number of English consonants that do not exist in Kuria, examples are, [p][b][h].

The English [p] is substituted for the Kuria [β.] This is because both are bilabials, as a result they can substitute each other. They are regarded as equivalent. The words change in the following way;

English	Gloss	Kuria	Gloss
/bʌs/	bus	[εβasI]	ebasi
/kʌbəd/	cupboard	[εγαβatI]	egabathi
/baɪbl/	bible	[εβεIβO]	ebaibo
/baɪərʊv/	biro	[εβεIτO]	ebeiro

The English voiceless bilabial stop /p/ also changes to the voiceless bilabial fricative [β] when the words are borrowed into Kuria as shown in the following examples;

English	Gloss	Kuria	Gloss
/petrəl/	petrol	[εβετετοI]	epetherori
/zɪp/	zip	[IsIβv]	isipu
/pəreɪd/	parade	[εβatetI]	eparethi

Substitution also takes place when both the voiced labiodental fricative /v/ and its voiceless counterpart /f/ are replaced with the voiceless bilabial fricative [β] as shown by these examples;

English	Gloss	Kuria	Gloss
/fræktʃə/	fracture	[uβutaɣitʃa]	uburagicha
/fo:mjulə/	formula	[oβomura]	obomura
/gləʊv/	glove	[ugutoβu]	ugurobu

When English words bearing the voiced palatoalveolar affricate sound /dʒ/, are borrowed into Kuria, they have the sound being substituted for the voiceless palatoalveolar affricate /tʃ/, as shown below;

English	Gloss	Kuria	Gloss
/gæɾədʒ/	garage	[eɣɛɾɛtɛʃi]	egerechi
/kɒlɪdʒ/	college	[eɣɔɾɛtɛʃi]	egorechi

When English words with the voiceless palatoalveolar fricative /ʃ/ are borrowed into Kuria, the /ʃ/ sound is substituted with the voiceless alveolar fricative [s] as shown in the following data;

English	Gloss	Kuria	Gloss
/məʃɪn/	machine	[emasini]	emasini
/ʃɜ:t/	shirt	[esati]	esathi

/s/ is also used whenever a loan word has the voiced alveolar fricative /z/ as shown below;

English	Gloss	Kuria	Gloss
/zɪp/	zip	[isiβu]	isibu

Substitution of English [z] for Kuria [s] was done in every case. [z] is replaced by [s] whenever loan words with the voiced alveolar fricative enter Kuria. Considering the principle of feature values, the two /s/ and [z] share similar features. The features are [+alveolar] and [+cor.]. This makes it possible for Kuria speakers to choose [s] in the place of the English /z/ which does not exist in their language.

English words with the voiced alveolar stop /d/ sound have it being substituted for a voiceless alveolar /t/ sound as shown by the data below;

English	Gloss	Kuria	Gloss
/di:kən/	deacon	[umutiɣoni]	umuthigoni
/gɜ:d/	guard	[omoyati]	omogathi
/dɪgrɪ/	degree	[itiɣiti]	ithigiri
/kʌbɔ:d/	cupboard	[ekabati]	ekabathi
/reɪdiətə/	radiator	[ɛɾɛtita]	erethitha

English words with the alveolar liquid /l/ have it being substituted with its alveolar liquid counterpart /ɾ/, as in the examples below;

English	Gloss	Kuria	Gloss
/pɪstəl/	pistol	[iβisitoti]	ibisithori
/dʒeɪl/	jail	[itʃeta]	ichera
/sel/	cell	[eseti]	eseri

Substitution of consonants not recognized in Kuria, with the Kuria equivalents is not done randomly but rather systematically. The major consideration being that substitution is only possible among consonants that share similar distinctive features. For instance The English /l/ for Kuria [ɾ]. The English [l] is not recognized in Kuria linguistic environment and is therefore substituted for [ɾ] which shares similar features existing in the Kuria sound inventory.

Since the trill /r/ is a liquid and produced at the alveolar ridge, it follows that its close substitute in the Kuria environment is the liquid [ɾ] which is also an alveolar sound. Both /r/ and [ɾ] are voiced consonant sounds; hence [ɾ] is used to substitute the English liquid /r/. The alternation of /r/ and [l] is a common cross-linguistic feature.

Vowel substitution

Vowels were substituted in the same manner as consonants, substituting those in the English language that are not recognized in the Kuria language. The major challenge was that English has many vowels that include monophthongs, diphthongs and triphthongs, whilst Kuria has only seven simple vowels which were to be equated to all those in the English language. This is illustrated by the following demonstrations

English /au/ for Kuria [o]

This was primarily because the English diphthong /au/ is not acceptable in Kuria. It was realized that the vowels that are made to substitute each other must share similar feature values. The diphthong /au/ and the vowel [o] are both [-high], [+ back]. This applies to all vowel substitutions done during nativisation. To handle vowels not existing in the Kuria

inventory, Kuria native speakers adopt the substitution processes to come up with acceptable sound segments.

Examples

/laʊrI/	lorry	[erori]	erori
/gləʊv/	glove	[iyitobu]	igirobu
/laʊrI/	lorry	[erori]	erori

English /əʊ/ for Kuria /o/

The diphthong /əʊ/ and the vowel [o] are both [-high], [+ back]. This applies to all vowel substitutions done during nativisation. To handle vowels not existing in the Kuria inventory, Kuria native speakers adopt the substitution processes to come up with acceptable sound segments.

/gləʊv/	glove	[iyitobu]	igirobu
/krəʊn/	crown	[iyitoni]	igirani

From the above data the English diphthong /əʊ/ is substituted by the single back mid vowel /o/.

English /ɛi/ for Kuria /ɛ/

English words with the diphthong /ɛi/ have it substituted for /ɛ/ when borrowed into Kuria as shown below;

English	Gloss	Kuria	Gloss
/tʃɛɪndʒ/	change	[itʃentʃi]	ichenchi
/treɪ/	tray	[etureji]	ethureyi
/pəreɪd/	parade	[ɛβateti]	ebarethi
/dʒɛɪl/	jail	[itʃeta]	ichera

English /I:/ for Kuria [i]

The English vowel [I:] is replaced by the Kuria [i] because the two vowels have similar features, they are high front vowels. Examples are given below;

English	Gloss	Kuria	Gloss
/dI:kən/	deacon	[umutiɣoni]	umuthiɣoni

/məʃɪn/	machine	[emasini]	emasini
/grɪs/	grease	[iyitisi]	igirisi

The rule is that sounds sharing similar features can substitute each other.

English /a: / for Kuria [a]

These two, /a: / and [a], are realized as [- high], [- front], [- back] and these similar feature values made it possible for the vowel [a] to be used in the place of the English vowel /a:/ in the Kuria linguistic environment. However, the English vowel [a] is longer than the Kuria, examples are shown below;

English	Gloss	Kuria	Gloss
/glɑ:s/	glass	[iyitasi]	igirasi
/kla:s/	class	[ekerasi]	ekerasi

English /ʌ/ for Kuria [a]

English loan words with the open mid front vowel /ʌ/ have it substituted for the open low front vowel [a]. This is because the two share similar features. The data below presents this;

English	Gloss	Kuria	Gloss
/bʌs/	bus	[eβasi]	ebasi
/klʌtʃ/	clutch	[iyiratʃi]	igirachi
/nʌt/	nut	[enati]	enathi
/dʒʌg/	jug	[ititʃɔgi]	irichagi
/dʌstə/	duster	[etasita]	ethasitha

English /ə/ for Kuria [a]

English words with the relatively short vowel called the schwa sound [ə], which occurs in unstressed syllables have it substituted for the open low front vowel /a/, as shown from the data below;

English	Gloss	Kuria	Gloss
/fræktʃə/	fracture	[uβutayitʃa]	uburagicha
/kænsə/	cancer	[eyansa]	egansa
/plastə/	plaster	[oβotasita]	oborasitha
/pəreɪd/	parade	[eβateti]	ebarethi
/məʃɪn/	machine	[emasini]	emasini

This rule states that the schwa [ə] sound is substituted with the open low front vowel [a] whenever it occurs in English loan words.

English /æ/ for Kuria [a]

Words with the open low front vowel /æ/ have the vowel being substituted with the open low front vowel /a/, as seen in the data below;

English	Gloss	Kuria	Gloss
/gæɾədʒ/	garage	[eyeretʃi]	egerechi
/kænsə/	cancer	[eyansa]	egansa
/fræktʃə/	fracture	[uβutayitʃa]	uburagicha
/bænd/	band	[eβendi]	ebendi
/sækrɪəmənt/	sacrament	[esekarameni]	esekarameni
/bæptɪzəm/	baptism	[eβatiso]	ebathiso

The rule is that, the open low front vowel /æ/ becomes the open low front vowel /a/ whenever it occurs in loan words.

The above examples demonstrate how the English vowels were handled by the Kuria speakers to make English words fit into the Kuria phonological inventory. The general trend found was that the substitution was not done randomly but rather systematically. The underlying principle was that those vowels that shared similar feature values could substitute one another.

5.2 Morphological Nativisation

The previous section handles phonological processes that account for various sound changes in English loans that enter into the Kuria linguistic environment. The current section (Morphological) discusses the morphological processes that account for morphological changes from the English system to suit the Kuria grammar in the process of lexical adaptation. This entails analysing how nouns change morphologically from the English linguistic environment into the Kuria environment.

According to the Lexical Phonology and Morphology Theory, morphological changes are at three levels, namely, the base-word, vowel level and affix or suffix level. The first level is characterized by base- words, followed by vowel alteration and the third level is characterized by a higher order morphological processes, affixation and suffixation. Stages two and three are characterized by derivational morphology, whilst level one is simple baseword morphology. It is stage three that is considered in this study.

Simple baseword morphology refers to the breaking down of a word into its immediate constituencies. Though the discussion is basically morphological, the discussion will marry phonology and morphology. This study therefore, uses both phonological and morphological principles in handling morphological units, more specifically nouns.

5.2.1 Handling Nouns

English is a language that is characterized by a base-word morphology which is different from that of Kuria. Kuria is generally a prefixal language while English is both a prefixal and suffixal language. However, the way these two languages represent the syllables of the prefixes and suffixes differ, since Kuria has a CV pattern whilst English has CVC. Noun words entering into Kuria are prefixed (CV) in order to make them acceptable grammatically. This is because all Kuria nouns have prefixes.

5.2.2 Singularity and Plurality markings in Kuria Loan nouns

English loan words go to their respective noun classes when borrowed into Kuria language. However before this happens they have to undergo some changes to adapt into the manner of articulation and characteristics of the Kuria nouns. Kuria nouns are grouped into different classes. Each class starts with a prefix which is preceded by a pre-prefix.

English and Kuria languages have differences in number markings. In Kuria number is marked word initially, while in English number markings occur word finally in regular nouns. In Kuria, usually it is the prefix that marks singularity and plurality, while in English regular nouns number is marked word finally while there are different markings on other forms of nouns. For instance the morpheme *-s* that marks number in English occurs at word final position while in Kuria, the number marker, for instance *-tʃi-*, is at the initial position, therefore, when borrowed, the loan word takes the Kuria structure by having the Kuria morpheme conjoined to it. The description of Kuria word classes and the possible English loan words that fit in these classes is given below; the classes occur in form of twos for instance, 1/2, 3/4 until classes 13 and 14 which occur on their own.

5.2.2.1 Class	Pre-prefix marker	Prefix marker
1/2	{o}-{a}	{mo}-{ba}

This is the first class in Kuria noun description. Nouns in this class take the **o-mo** prefix in their singular form and the **a-ba** in the plural form. Most nouns in this group usually refer to the collective nouns that refer to different categories of human beings, for instance the young, the old, the aged and even the dead, names of people practicing in different professions, names of country nationals, and character traits. To fit in this class, English loan words have to acquire the **o-mo** prefix in their singular and **a-ba** in plural forms; otherwise they are nativised to fit in a different group.

Example

Kuria	English
omonto-abanto	(person-persons)

Examples of loan words that fit into this group are presented below;

Singular

English	Gloss	Kuria	Gloss
/gɜ:d/	guard	[omoyati]	omogathi
/pɒlɪsmən/	policeman	[omobotisi]	omoborisi

/pa:stə/	pastor	[omobasita]	omobasitha
/di:kən/	deacon	[omotiɣoni]	omothigoni

All the words given above, as output, have two things in common. The first thing being that they all have a monosyllabic prefix [mo-] of class 1 and the second thing being that they are all singular in reference. This therefore made the word qualify to be a noun base-word in Kuria, characterized by a noun prefix and a noun stem.

Plural

The Kuria native speakers insert the prefix [ba] substituting the English /s/ to come up with plural form of noun based words in Class 1. The inserted prefix [ba-] is a monosyllabic prefix, denoting nouns in class 2. These are human beings, who at least are two in number

English	Gloss	Kuria	Gloss
/gɜ:dz/	guards	[abagati]	abagathi
/polismən/	policeman	[ababorisi]	ababorisi
/pa:stəz/	pastors	[ababasitha]	ababasitha
/di:kən/	deacon	[abathigoni]	abathigoni

5.2.2.2 Class	Pre-prefix marker	Prefix marker
3/4	{o}-{e}	{mo}-{me}

Nouns in this class take the **o-mo** as the prefix in singular form and **e-me** as a plural prefix marker. In Kuria language, nouns in this class refer to non living objects, parts of the body, some kinds of foods and and some names of trees. When words are borrowed from English to Kuria, they acquire this characteristic for them to fit in this group.

Example

Kuria	English
Omote-emetete	(tree-trees)

Examples of borrowed words that fit in this class are shown in the data below;

Singular

English	Gloss	Kuria	Gloss
/mautəka:/	motorcar	[omotoya]	omothoka

Plural

English	Gloss	Kuria	Gloss
/mautəka:z/	motorcars	[emetoya]	emethoka

5.2.2.3 Class

Pre-predix marker

Prefix marker

5/6

{i} - {a}

{ti} - {ma}

Nouns in this class take the **i-ti** prefix in singular form and the **a-ma** in plural form. This class constitutes nouns that refer to naturally occurring phenomena like physical features, but English loan words referring to different phenomena are nativised to fit in this group too.

Example

Kuria	English
itigena	stone
amagena	stones

Examples of loan words that fit into this class are given below.

Singular

English	Gloss	Kuria	Gloss
/rikru:t/	recruit	[itikuɾutu]	irikuruthu
/d3ɛl/	jail	[ititʃeta]	irichera
/pistɔl/	pistol	[itiβisitorɪ]	iribisithori
/skuea/	square	[irisikeja]	irisikeya

Plural

English	Gloss	Kuria	Gloss
/rikru:ts/	recruits	[amakurutu]	amakuruthu
/d3ɛllz/	jails	[amatʃeta]	amachera
/pistɔlz/	pistols	[amaβisitori]	amabisithori
/skueaz/	squares	[amasikeja]	amasikeya

5.2.2.4 Class	Pre-prefix marker	Prefix marker
7/8	{e}-{i}	{ye}-{βi}

This class has nouns taking the prefix **e-ye** or **i-yi** in singular form and **i-βi** in plural forms.

Most nouns here refer to tools and instruments used in Kuria language. Those tools which were not initially in Kuria lexicon but were borrowed from English, acquire this characteristic for them to fit in this noun class otherwise they are nativised to fit in a different group.

Example

Kuria	English
eyekeβi	knife
iβikeβi	knives

Examples of loan words that fit into this class are presented in the data below;

Singular

English	Gloss	Kuria	Gloss
/klʌtʃ/	clutch	[iyitatʃi]	igirachi
/klɪnɪk/	clinic	[iyitiniki]	giriniki
/krəʊn/	crown	[iyitani]	igirani
/kla:s/	class	[eketasi]	ekerasi

Plural

English	Gloss	Kuria	Gloss
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/kɪlʌtʃɪz/	clutches	[iβitʌtʃi]	ibirachi
/kɪlɪnɪks/	clinics	[iβitɪniyi]	ibiriniki
/krəʊnz/	crowns	[iβitʌni]	ibirani
/kla:sɪz/	classes	[iβitʌsi]	ibirasi

5.2.2.5 Class	Pre-prefix marker	Prefix marker
9/10	{e}-{i}	{βa}-{tʃi}

Nouns in this class take the vowels 'e' and 'i' as the pre-prefixes in singular forms while the tʃi is used as a plural prefix marker. Whenever a word is borrowed from English, it has to acquire this characteristic for it to fit into this group. If not possible for it to fit here, it goes to a different class.

Example

Kuria	English
eβata	duck-
itʃiβata	ducks

Loan words that fit into this class are presented in the data below.

Singular

English	Gloss	Kuria	Gloss
/bʌs/	bus	[eβasi]	ebasi
/pəreɪd/	parade	[eβatɛti]	ebarethi
/fɑ:məsi/	pharmacy	[eβamasi]	ebamasi
/bæptɪzəm/	baptism	[eβatɪso]	ebathiso

Plural

English	Gloss	Kuria	Gloss
/bʌsɪz/	buses	[itʃiβasi]	ichibbasi

/pəreɪdz/	parades	[itʃiβatɛti]	ichibarethi
/fɑ:məsi:z/	pharmacies	[itʃiβamasi]	ichibamasi
/bæptɪzəmz/	baptisms	[itʃiβatɪso]	ichibathiso

5.2.2.6 Class	Pre-prefix marker	Prefix marker
11/12	{e}/{i} (n)	{-tʃi} (n)

In this class most nouns begin with ‘e’ or ‘i’ vowels. Nouns borrowed from English have to acquire the ‘e’ or ‘i’ as a pre-prefix marker for them to fit into this class.

Example;

Kuria	English
engebo	cloth
ichingebo	clothes

Loan words which fit into this noun class include the ones given below;

Singular

English	Gloss	Kuria	Gloss
/korəs/	chorus	[ekorasi]	ekorasi
/sækriɪmənt/	sacrament	[eseɣarameni]	esekarameni
/gaun/	gown	[eɣauni]	egauni
/saliu:t/	salute	[esetuti]	eseruthi

Plural

English	Gloss	Kuria	Gloss
/korəsɪz/	choruses	[itʃikorasi]	ichikorasi
/sækriɪmənts/	sacraments	[itʃiseɣarameni]	ichisekarameni
/gaunz/	gowns	[itʃiɣauni]	ichigauni

/sal <u>i</u> :ts/	salutes	[itʃiseruti]	ichiseruthi
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5.2.2.7 Class	Pre-prefix Marker	Prefix marker
13	{a}/{i}(n)	{ɣa}/{tʃi}(n)

In class 13 of the Kuria Nouns, ‘a’ or ‘i’ forms the pre-prefix marker while ‘ɣa’ or ‘tʃi’ forms the prefix marker, the two precede a noun. Nouns here are described in terms of their size with more emphasis on the tiny or small size as shown below;

Kuria	English
agasogisi	small pair of socks
obosoyisi	small pairs of socks
ichuba	bottle
ichichuba	bottles

Other examples from the data are presented below.

English	Gloss	Kuria	Gloss
/sɑks/	socks	[itʃisoyisi]	ichisogisi
/zips/	zips	[itʃisiβu]	ichisibbu
/ʃɜ:ts/	shirts	[itʃisati]	ichisathi
/ru:ləz/	rulers	[itʃituta]	ichirura
/tʃo:ks/	chalks	[itʃitʃoki]	ichichoki

5.2.2.8 Class	Pre-prefix marker	Prefix marker
14	{u}	{ɣu}

The 14th noun class has the ‘u’ as the pre prefix marker and ‘ɣu’ as the prefix marker. Nouns in this class are described in terms of their size. Huge or big size is emphasized here. For instance;

Kuria	English
uguchuba	big bottle-
amachuba	big bottles

Other examples from the data include the following;

Singular

English	Kuria diminutive	Kuria superlative
jail	[urutʃeta]	[uɣutʃeta]
choir	[urukuaja]	[uɣukwaya]
gown	[oroɣauni]	[oɣoɣauni]
band	[oroβendi]	[oɣobendi]

Plural

English	Kuria diminutive	kuria superlative
jail	[uβutʃeta]	[amatʃeta]
choir	[uβukuaja]	[amakwaya]
gown	[oβoɣauni]	[amagauni]
band	[oβoβendi]	[amabendi]

The thirteen and fourteenth classes contain prefixes that denote the size of the noun. Nouns in Kuria language are grouped as small size, normal size and big or huge size.

Nouns in small size are introduced by the pre-prefix /a/ and the prefix /ga/ in singular and /u/ (pre-prefix) as well as /bu/ (prefix) in plural, as shown by the data below.

agachuba -small bottle

ubuchuba -small bottles

Sometimes o-bo can be used for the plural pre-prefixation and prefixation respectively.

As in;

gakebi -small knife

obokebi -small knives

However, size was not considered during data collection because it was beyond the scope of this study which only considered number.

From the above data, in Kuria, singularity and plurality occur in word initial position of the borrowed word. This is in contrast with English language where the plural marker occurs in word final position in regular nouns.

5.3 General rules

From the data discussed above the following general rules are formulated. It is noteworthy here that these rules can apply crosslinguistically, the key determining point will be that the lending language has the same features as English while the borrowing language has a similar structure as Kuria.

Rule 1: Syllable reorganization

English loan words with the syllable structures CVC, CCV have this structure being reorganized to the Kuria CV; CVCV structure through resyllabification. This is a process of reorganizing the syllable tiers from the English CVC, CCV to a pattern acceptable by the Kuria phonology. Resyllabification entails handling complex clusters for instance /CCV/ not recognized in Kuria.

Rule 2: Peak breaking

When English words, with complex peaks, (in particular diphthongs and triphthongs) are loaned to Kuria, the complex peaks are broken to fit into Kuria structure as follows;

English	Gloss	Kuria	Gloss
/gləʊv/	glove	[iyutoβu]	igurobu
/tʃeɪndʒ/	change	[itʃentʃi]	ichenchi
/gaʊn/	gown	[eɣawuni]	egawuni
/taɪ/	tie	[etaje]	ethae

Rule 3: Vowel epenthesis

When English words with the CCV, CCCV structure are borrowed into Kuria language they are customized by inserting vowels between consonants.

Examples;

English	Gloss	Kuria	Gloss
/saks/	socks	[itʃisoyisi]	ichisogisi
/treɪ/	tray	[etureji]	ethureyi

/kla:s/	class	[ekerasi]	ekerasi
/plastə/	plaster	[uβurasita]	uburasitha

The English loans that do not conform to the syllable structure of the Kuria language because of the consonant clusters have the clusters being broken and vowels being inserted in between the CC clusters.

Rule 4: Initial vowel insertions

All English words borrowed into Kuria language with a consonant at the initial position have a vowel being inserted before the consonant to fit into Kuria pre-fixation rule structure.

For instance

/gla:s/	glass	[iyirasi]	igirasi
/saks/	socks	[itʃisoyisi]	ichisogisi
/telIvi3n/	television	[etereβisoni]	eterebisoni
/dʒʌg/	jug	[iritʃayi]	irichagi
/ʃɜ:t/	shirt	[esati]	esathi
/trei/	tray	[etureji]	ethureyi
/net/	net	[eneti]	enethi

Rule 5: Sound deletion

English loans that contain sounds which were not recognized in Kuria have these sounds being deleted completely. Examples; In Vowel deletion, the general rule states that, a vowel is deleted when it appears in sequence with another vowel. Thus instead of having two vowels in a sequence only one remains

As in;

English	Gloss	Kuria	Gloss
/pəreid/	parade	[eβareti]	ebarethi

/krəʊn/	crown	[iγitani]	igirani
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In consonant deletion, sounds that undergo deletion are those that do not occur in Kuria sound system. For instance the /h/ sound in English is normally deleted from words borrowed into Kuria as shown below;

English	Gloss	Kuria	Gloss
/hɒspɪtl/	hospital	[isɪβɪtati]	isibithari

Rule 6: Sound substitution

Segments that were not recognized in Kuria were replaced by those that were recognized.

English	Gloss	Kuria	Gloss
/bʌs/	bus	[εβasɪ]	ebasi
/kʌbəd/	cupboard	[εγαβatɪ]	egabathi
/baɪbl/	bible	[εβεɪβo]	ebaibo

In Vowel substitution, it was realized that the vowels that are made to substitute each other must share similar feature values. The diphthong /au/ and the vowel [o] are both [-high], [+back]. This applies to all vowel substitutions done during nativisation. To handle vowels not existing in the Kuria inventory, Kuria native speakers adopt the substitution processes to come up with acceptable sound segments.

Examples

English	Gloss	Kuria	Gloss
/laʊrɪ/	lorry	[εtotɪ]	erori
/glauv/	glove	[iγutoβu]	igurobu
/laʊrɪ/	lorry	[εtotɪ]	erori

Rule 7: Noun prefixation

Noun entering into Kuria are prefixed (CV) in order to make them acceptable grammatically. this is because Kuria is generally a prefixal language while English is both a prefixal and suffixal language. For instance;

English	Gloss	Kuria	Gloss
/g3:d/	guard	[omoyati]	omogathi
/polismən/	policeman	[omobotisi]	omoborisi
/pa:stə/	pastor	[omobasita]	omobasitha
/di:kən/	deacon	[omotiyoni]	omothigoni

Rule 8: Plural markings

English loan words adapt to the Kuria morphological structure by dropping the final position plural marker and having the initial position marker attached to them. For instance the morpheme **-s** that marks number in English occurs at word final position while in Kuria, the number marker, for instance **-tʃi-**, is at the initial position, therefore, when borrowed, the loan word takes the Kuria structure by having the Kuria morpheme conjoined to it.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

In this section a summary of the study results and their implications is presented. The section also contains the conclusion and recommendations based on the study and the field experience.

6.1 Summary

In summary, English and Kuria languages differ widely in terms of their phonemic inventories and morphological structure. As a result, Kuria speakers customize borrowed words from English language in different ways for them to fit into their sound system. The main reason why borrowing took place is because the Abakuria borrowed western aspects of material culture and values from the English speakers who were viewed to be more powerful and their language more prestigious because of the opportunities it had to offer in the colonial and post colonial set up in Kenya.

Since Kuria speakers did not have words for the borrowed items, they borrowed the English words too. These words have since been nativised to fit into Kuria sound structures through different adjustments on the sound segments; the consonants and the vowels. Such changes are governed by various processes and have been formalised through rules in this study. This study has shown that though languages are never the same, when two different languages are in contact, one can borrow words from the other and the loan words are nativised to become part and parcel of the borrowing language and be used as if they were part of its lexicon.

6.2 Conclusion

This study was based on the linguistic area of language contact and borrowing. It was found out that a determinant of adaptation of loan words is the structural difference between English and Kuria. Kuria allows no consonant clusters in its syllable structure, for instance, as opposed to English which permits up to four consonants. Therefore in analysing strategies used by Kuria to nativise foreign consonant clusters it is clear that the language employs several processes: resyllabification consonant and vowel epenthesis/ insertion, deletion, addition of final vowel, breaking of consonant clusters and others as discussed in chapter five.

The major areas of study which were presented in the objectives of the study included an investigation on: whether words borrowed from English language to Kuria undergo morphophonemic changes and if so, to find out if these changes were based on morphophonemic rules that are stipulated in the Natural Generative Phonology theory which was the theoretical framework for this study.

The hypotheses of the study are confirmed because it has been discovered that, when English loan words are borrowed into Kuria language, they undergo morphophonemic changes as presented in chapter four. It was also found that these changes were governed by morphophonemic rules as shown in chapter five.

The structural differences between English and Kuria language as presented in the literature review (chapter two) formed the basis of changes analysed in this study. The two languages have differences in vowel and consonants structure, and also in word formation. Thus, it is concluded that there are consonant and vowel changes whenever borrowing takes place from English to Kuria language. The consonantal changes observed include: consonant substitution, deletion, strengthening and nasalisation, while the vowel changes include: vowel substitution, deletion, insertion and lengthening. No single word maintained its initial form when borrowed from English to Kuria Language both in Singular and plural forms.

The findings validate the position already taken by other scholars and researchers who have done historical and comparative studies in different languages. Researchers such as Arlotto (1972) report that, words undergo changes from donor languages to fit into recipient languages because of the differences that accrue between the two languages. On his part Hock (1986) observes that a loan word is nativised to fit into the receiving language and thus be used like other words in it. In view of the aforementioned, the objectives of this study as stated in chapter one were achieved while the hypotheses were confirmed to be true.

6.3 Recommendations.

It is recommended that more studies be conducted on the phonology and morphology of Kuria language using modern theories of morphophonemic description. This is because during the study it was realized that very few studies have been conducted on Kuria language and none has been on language contact and borrowing.

It is also recommended that further studies focus on the other aspects such as size and gender modifications in borrowed words, because this study only focused on number modifications.

This study focused on the segmental changes only. That is, the sound changes that occur when words are borrowed from English to Kuria language; much emphasis was put on the segmental level. It is recommended that further studies deal with the supra-segmental and auto-segmental changes that take place during borrowing of words from English to Kuria language.

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APPENDIX 1: FOCUS GROUP GUIDE

RESEARCH ON ENGLISH LOAN WORDS IN KURIA LANGUAGE

SECTION 1

- a) Languages spoken:

- b) Are there any English words used in Kuria?

- c) If yes, give two examples; i)-----

 ii)-----

SECTION 2

a. Motor vehicle engineering

- i. When you have a car breakdown, how do you deal with it?
- ii. What must you check first?
- iii. Do you take your work to be as any other type of work?
- iv. How do other people view you and your work?
- v. What challenges do you face in your daily activities?

SECTION 2

b. Education

- i. What advice can you give to those who do not take their children to school?
- ii. How can you advise your pupils on the importance of studying with a goal of joining college or university?
- iii. What challenges do you go through as a class teacher and in school in general and what makes you proud of your work?
- iv. Do you always complete the syllabus in time? If not what do you do about it?
- v. Do your pupils view mathematics as a difficult subject? If so, why, and what can you do to change their attitude?

SECTION 2

c. Domesticity

- i. Which is the commonly eaten meal in your premise? How is it prepared?
- ii. What sort of entertainment do you give to your customers?
- iii. Why is it important to maintain cleanness in your premises?
- iv. What measures do you put in place to ensure that the place is always clean?
- v. What challenges do you face in your day to day activities?

SECTION 2

d. Health

- i. What are the common diseases that you encounter in this health centre?
- ii. How do you attend to emergency cases like; snake bites, dog bites
- iii. Do you have VCT services? What is the response of people to such services?
- iv. How do you handle people with terminal diseases like cancer, HIV?
- v. Do you face any challenges in your work? Which ones, and how do you overcome them?

SECTION 2

e. Police Force

- i. Give the daily program of a police officer
- ii. Comment on the allegations that the police force is a corrupt sector
- iii. What is the importance of putting on uniform in the forces?
- iv. Why are women few in the police force compared to men?
- v. What challenges do you face in your work?

SECTION 2

f. Religion

- i. How did you become a follower of the denomination you are in?
- ii. Can the church help to solve the problems that face our nation? If so, in what ways?
- iii. Do you think there should be leadership in the church? Why?
- iv. Should there be entertainment in the church? Of what kind?
- v. What challenges do you go through as a believer?

APPENDIX 2: TRANSCRIBED DATA

1. Singular forms

a) Domesticity

English	Gloss	Kuria	Gloss
/zip/	zip	[isiβu]	isibu
/sk3:rt/	skirt	[eseγeti]	esegethi
/kΛb3d/	cupboard	[ekaβati]	ekabathi
/gla:s/	glass	[iyitasi]	igirasi
/sɔks/	socks	[itʃisoyisi]	ichisogisi
/telɪvi3n/	television	[eteteβisoni]	eterebisoni
/tai/	tie	[etaje]	ethae
/dʒʌg/	jug	[iritʃayi]	irichagi
/ʃ3:t/	shirt	[esati]	esathi
/trei/	tray	[etureji]	ethureyi
/net/	net	[eneti]	enethi

b) Education

English	Gloss	Kuria	Gloss
/pəreid/	parade	[eβareti]	ebbarethi
/sku:l/	school	[ʃisukutu]	isukuru
/kla:s/	class	[eketasi]	ekerasi
/bairəu/	biro	[eβeito]	ebeiro
/kolidʒ/	college	[eγoteʃi]	egorechi
/ru:lə/	ruler	[ituta]	irura
/fo:mjələ/	formula	[eβomuta]	ebomura
/dɪgrɪ/	degree	[itiyiti]	ithigiri
/tʃo:k/	chalk	[itʃoki]	ichoki

/dʌstə/	duster	[etasita]	ithasitha
/skweə/	square	[isikeja]	isikeya

c) Health

English	Gloss	Kuria	Gloss
/opəreɪʃn/	operation	[oβotesoni]	oporesoni
/klɪnɪk/	clinic	[ɪyɪrɪnɪki]	igiriniki
/hɒspɪtəl/	hospital	[isiβɪtati]	isibithari
/kænsə/	cancer	[eyansa]	egansa
/pləstə/	plaster	[uβurasita]	uburasitha
/temprətʃə/	temperature	[etembetʃa]	etembecha
/fræktʃə/	fracture	[uβurayitʃa]	uburagicha
/wɔ:d/	ward	[ewoti]	ewothi
/lɪnɪmənt/	liniment	[ɪrɪməni]	irimeni
/fɑ:məsi/	pharmacy	[eβamasi]	ebamasi

d) Police administration

English	Gloss	Kuria	Gloss
/stɔ:/	store	[ɪsɪtɔtɔ]	isithoro
/krəʊn/	crown	[ɪyɪrɪni]	igirani
/rɪkrʊ:t/	recruit	[ɪrɪkrʊtʊtʊ]	irikuruthu
/gɜ:d/	guard	[omogati]	omogathi
/sel/	cell	[eseti]	eseri
/pɒlɪsmən/	policeman	[omobɔtisi]	omoborisi
/pɪstəl/	pistol	[ɪβɪsɪtɔtɪ]	ibisithori
/saliu:t/	salute	[esetuti]	eseruthi

/dʒeɪl/	jail	[itʃera]	ichera
/bænd/	band	[eβendi]	ebendi

e) Religion

English	Gloss	Kuria	Gloss
/baɪbl/	bible	[eβaiβo]	ebaibo
/gaʊn/	gown	[eɣauni]	egauni
/sækrɪəmənt/	sacrament	[esekarameni]	esekarameni
/di:kən/	deacon	[umutiɣoni]	umuthiyoni
/kwaɪə/	choir	[ikuaja]	ikwaya
/pa:stə/	pastor	[omobasita]	omobasitha
/bæptɪzəm/	baptism	[eβatiso]	ebathiso
/mɪsl/	missal	[imisa]	imisa
/kɒrəs/	chorus	[eɣorasi]	ekorasi

f) Motor Vehicle Mechanics

English	Gloss	Kuria	Gloss
/məʃɪn/	machine	[emasini]	emasini
/laʊrɪ/	lory	[etoti]	erori
/gləʊv/	glove	[igutoβu]	igurobu
/tʃeɪndʒ/	change	[itʃentʃi]	ichenchi
/bʌs/	bus	[eβasi]	ebasi
/klʌtʃ/	clutch	[ɪɣɪtatʃi]	igirachi
/kɑː/	car	[ekara]	ekara
/giə/	gear	[eɣeja]	egeya
/petrɔɪl/	petrol	[eβetɛtoti]	ebetherori
/gærədʒ/	garage	[eɣetɛtʃi]	egerechi

/nʌt/	nut	[enati]	inathi
/grɪ:s/	grease	[iɣɪtisi]	igirisi
/rɛɪdiɛɪtə/	radiator	[erɛtita]	erethitha

2. Plural forms

a) Motor vehicle mechanics

English	Gloss	Kuria	Gloss
/məʃI:nz/	machines	[itʃimasini]	ichimasini
/ləʊrIz/	lorries	[itʃirori]	ichirori
/gləʊvz/	gloves	[itʃiyuroβu]	ichigurobu
/tʃeɪndɪz/	changes	[itʃitʃentʃi]	ichichenchi
/bʌsɪz/	buses	[itʃiβasi]	ichibasi
/klʌtʃɪz/	clutches	[itʃiyɪtʃatʃi]	ichigirachi
/kɑ:z/	cars	[itʃikata]	ichikara
/giəz/	gears	[itʃiyɛja]	ichigeya
/petrəl/	petrol	[itʃiβetɛtɔti]	ichibeterori
/gærədɪz/	garages	[itʃiyɛtɛtʃi]	ichigerechi
/nʌts/	nuts	[itʃinati]	ichinathi
/grɪ:z/	grease	[itʃiyɪtɪsi]	ichigirisi
/reɪdɪɛtəz/	radiators	[itʃitɛtita]	ichirethitha

b) Domesticity

English	Gloss	Kuria	Gloss
/zɪps/	zips	[itʃisiβu]	ichisibbu
/skɜ:rts/	skirts	[itʃiseɣɛti]	ichisegethi
/kʌbɔɪdz/	cupboards	[itʃikaβati]	ichikabathi
/glɑ:sɪz/	glasses	[itʃiyɪtasi]	ichigirasi
/sɒks/	socks	[itʃisoɣisi]	ichisogisi
/telɪvɪʒnz/	televisions	[itʃitɛtɛβisoni]	ichiterebisoni
/taɪz/	ties	[itʃitaje]	ichithae
/dʒʌgɪz/	jugs	[amatʃayi]	amachagi

/ʃɜ:ts/	shirts	[itʃisati]	ichisathi
/treiz/	trays	[itʃitureji]	ichitureyi
/nets/	nets	[itʃineti]	ichinethi

c) Education

English	Gloss	Kuria	Gloss
/pəreɪdʒ/	parade s	[itʃiβateti]	ichibarethi
/sku:lz/	schools	[itʃisukutu]	ichisukuru
/kla:si/	classes	[iβitasi]	ibirasi
/baɪrəʊz/	biros	[itʃiβejito]	ichibeiro
/kolɪdɪz/	colleges	[itʃiγoteti]	ichigorechi
/ru:ləz/	rulers	[itʃituta]	ichirura
/fo:mjʊləz/	formulas	[itʃiβomuta]	ichibomura
/diɡri:z/	degrees	[itʃitiyiti]	itʃithigiri
/tʃo:ks/	chalks	[itʃitʃoki]	ichichoki
/dʌstəz/	dusters	[itʃitasita]	ichithasitha
/skweəz/	squares	[itʃisikeja]	ichisikeya

d) Health

English	Gloss	Kuria	Gloss
/ɒpəreɪʃnz/	operations	[amaβotesoni]	amaboresoni
/kli:niks/	clinicz	[iβiyitiniki]	ibigiriniki
/hɒspɪtəlz/	hospitals	[itʃisiβitari]	ichisibitari
/kænsəz/	cancers	[itʃiyansa]	ichigansa
/pləstəz/	plasters	[amaβurasita]	amaburasitha
/temprətʃəz/	temperatures	[itʃitemβetʃa]	itʃitembecha
/fræktʃəz/	fractures	[itʃiβurayitʃa]	ichiburagicha

/wɔ:dz/	wards	[itʃiwoti]	ichiwoti
/lɪnɪmənts/	liniments	[amətɪmənti]	amarimenti
/fɑ:məsɪz/	pharmacies	[itʃiβamasi]	ichibamasi

e) Police administration

English	Gloss	Kuria	Gloss
/stɔ:z/	stores	[itʃisitoro]	ichisithoro
/krəʊnz/	crowns	[iβiγitani]	ibigirani
/rikru:ts/	recruits	[amakurutu]	amakuruthu
/gɜ:dz/	guards	[aβaγati]	abagathi
/selz/	cells	[itʃiseri]	ichiseri
/pɒlɪsmen/	policemen	[aβaβotisi]	ababorisi
/pɪstɔlz/	pistols	[itʃiβisitoti]	ichibisithori
/saliu:ts/	salutes	[itʃiseruti]	ichiseruthi
/dʒeɪlz/	jails	[itʃitʃeta]	ichichera
/bændz/	bands	[itʃiβendi]	ichibendi

f) Religion

English	Gloss	Kuria	Gloss
/baɪblz/	bibles	[itʃiβeiβo]	ichibaibo
/gaʊnz/	gowns	[amagauni]	amagauni
/sækrɪləmənts/	sacraments	[itʃisekarameni]	ichisekarameni
/di:kənz/	deacons	[aβatiyoni]	abathiyoni
/kwaɪəz/	choirs	[itʃikuaja]	ichikwaya
/pa:stəz/	pastors	[aβaβansita]	ababasitha

/bæptɪzəmz/

baptisms

[itʃɪβatɪso]

ichibathiso

/mɪsɪlz/

missals

[itʃɪmɪnsə]

ichimisa

/kɒrəsɪz/

choruses

[itʃɪkɒrəsi]

ichikorasi

Other Examples of English Loan words used in Kuria language

English	Gloss	Kuria	Gloss
/hʌŋə/	hunger	[ɛaŋa]	eang-a
/waið/	wire	[ewaja]	ewaya
/mæp/	map	emaβu	emabu
/vautʃð/	voucher	eβotʃa	ebocha
/trækta/	tractor	[itirayita]	ithiragitha
/ja:d/	yard	[ijati]	iyathi
/vitamin/	vitamin	[iβitamini]	ibithamini
/skɜ:t/	skirt	[isiyeti]	isigethi
/tʃek/	cheque	[itʃeki]	icheki
/bəlun/	ballon	[eβaruni]	ebaruni
/kɜ:d/	card	[ɛɣate]	egathe
/peə/	pair	[eβeja]	ebeya
/ləuri/	lorry	[ɛroti]	erori
/plɔt/	plot	[oβoroti]	oborothi
/dʒæm/	jam	[itʃamu]	ichamu
/dip/	dip	[itiβu]	ithibu
/piktʃə/	picture	[iβitʃa]	ibicha
/reidiə/	radio	[ɛretio]	erethio
/rʌbəz/	rubber	[itʃiraβa]	ichiraba
/tɔtʃi/z/	torches	[itʃitotʃi]	ichithochi
/fail/	file	[eβairi]	ebairi
/bu:ts/	boots	[itʃiβuti]	ichibuthi

/stu:lz/	stools	[itʃisuturu]	ichisuthuru
/nets/	nets	[itʃineti]	ichinethi
/vests/	vests	[itʃiβesiti]	ichibbesithi
/verandə/	veranda	[oβotanda]	obboranda
/sprɪŋ/	spring	[isiβtɪŋgi]	isibiringi
/switʃz/	switches	[itʃswitʃi]	ichiswichi
/fius/	fuse	[iβisi]	ibisi
/bonet/	bonnet	[eβoneti]	ebbonethi
/huks/	hooks	[itʃhuku]	ichihuku
/koilz/	coils	[itʃikoti]	ichikori
/blanket/	blanket	[oβorengeti]	oborengethi

APPENDIX 3: MAP OF THE RESEARCH AREA

