Phonological Processes in Chagga Nativized Lexemes Borrowed From Standard Swahili: A Chagga - English Comparative Study

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ABSTRACT

Linguistics as a present study, acts as an instrument towards promoting local languages. This recent study aims at studying some of phonological processes in Chagga language (Particularly Kibosho and Marangu varieties). Chagga is a Bantu language family spoken by Chagga people of Tanzania, south of Mount Kilimanjaro. Borrowing is the act of taking a word or a phrase from one language and used it in another language. The present study is carried out under Generative CV Phonology Theory, developed by linguists, Keyser and Clements in (1983). This theory strives to guide the present study on scrutinize phonological processes with their rules in Kibosho and Marangu varieties. The very study is the phonological type of study which employs qualitative method. The study employs Interview to observe the pronunciation by native speakers, voice note as linguistic variable need for homogenous resemblance of the uttered lexical items and the phonological processes. To answer study question one the study observes there are three major causes of phonological processes in Chagga as in English with very little variations namely: Phonological processes motivated by syllable structure rules [vowel insertion/ epenthesis], Phonological processes in Chagga language affecting syllable [consonant deletion] and Phonological processes motivated by phonemic reasons [cluster tolerance, feature change]. In adhering problem two the study has found similar phonological processes between English and Chagga with very little differences especially on phonemes which undergo the changes hence advocates for further analyses in local African and Asian languages to pursue a similar study or any nearly phonological study in order to preserve and promote local linguistics contents from ones native language.

Keywords: *Phonological processes, Nativazation, Phonological rules, Chagga languageI*

INTRODUCTION

Chagga is a Bantu language spoken by Chagga people of Tanzania, south of Mount Kilimanjaro. Chagga people are also called Wachaga, Jagga, Dschaga, and Waschaga (Mushi 2005). This language is categorized into Bantu language families, as an indigenous African; language spoken by the third largest ethnic group in Tanzania. Chagga people are traditionally living in the southern and eastern slopes of Mount Kilimanjaro, Mount Meru and near Moshi. Dialect continuum is a range of dialects spoken across some natural area that differ only slightly between neighboring areas, but as one travels in any direction, these differences accumulate such that the speech from opposite ends of the continuum is no longer mutually intelligible.

Chagga people descended from various Bantu groups who migrated from the east of Africa into the foothills of Kili-

manjaro. Linguistic evidence proves that the migration of these individuals predominantly came from the north and east of Kilimanjaro (Lema 1973). Lema claims that, after Chagga arrival the development of chiefdoms emerged whereby each of the overriding chiefdoms developed their speech traditions emerged was not a unified Chagga language but a variety of dialects of the same language. That is why these people have several dialects while they are all Chagga people, staying in the same geographical location. Though there are no clear proofs about how these people arrived at the foot of Mount Kilimanjaro, it is estimated that their arrival was gradually happened until they are fully established.

The Chagga phonemes have all parameters of Bantu languages specifically in its phonological features. Thereafter, comprehending Chagga phonological system particularly Kibosho and Marangu varieties act as a helpful language instrument for the research to make a deep analysis of Phonological Processes of Nativized words in Kibosho and Marangu dialects of Chagga from Standard Swahili. Through this the researcher observed which features are reassigned from Swahili to Chagga, and those which are not. The phonological parameters used to categorize vowels in Chagga language with its varieties are the same as those applied in English language which marks a similarities within a comparative study as: tongue height, tongue position and lip shape. In English language as well as Chagga language the tongue height parameter is concerned with raising part of the tongue involved when producing a vowel sound. Similarly to vowels, Chagga has the various consonant sounds in its phonemic inventory. Stops [/ p /, / b/, /t/, / d/ and / k/], nasals / m, n. ɳ and ŋ/ fricatives [/ f/, / v/, / s/, / ʃ/ and / h/], one affricate / ʧ/. Also the lateral / l / and the trill / r/ and /w and y/. In Chagga language especially in Kibosho variety glides cannot function as syllable nuclear without a vowel.

The phonological processes taking place on Chagga loanwords nativization are caused by different factors. Such factors are phonological processes that occur due to phonemic reason. Second, group of phonological processes is triggered by non-assimilation and assimilation rules. The third are the phonological changes that are motivated by Chagga PSSRs. Phonological processes motivated by syllable structure conditions as in English, also occur on Kibosho and Marangu varieties of Chagga loanwords in that the loanword adaptation or nativization at the phonological level is governed by syllable well-formedness in the RL. The phonological processes involved are aimed at realizing well-formed or permissible syllables in a given language. For example in Kibosho and Marangu varieties, the phonological processes include segment deletion, insertion and substitution. The study is restricted in analyzing Phonological processes that involved in Marangu and Kibosho dialects.

This study is brought about by the foundations of borrowing phenomenon as the word formation process. It is defined as the act of taking a word or a phrase from one language and used it in another language. Mwaliwa confer on levels of borrowing, as, pure or adopted borrowing and adjusted or adapted borrowing (2014). The concept of pure borrowing as a type of borrowing involves taking the word in the recipient language without making any structural alterations in the word whereas adjusted borrowing as a type of borrowing whereby the loanword undergoes significant structural changes when it gets into the recipient language. These two

categories of borrowing occur in all languages, depending on the structure of the languages involved. Furthermore asserts that pure borrowing will take place if the structure of the Source Language is similar to the structure of the Recipient Language. This study is guided by major two questions. The first question is: What are the phonological processes of loanword nativization in Marangu and Kibosho dialects of Chagga? The second question states that: What are the similarities and differences between Kibosho and Marangu varieties of Chagga and English in terms of phonological processes in lexeme nativization? These questions made the study to seek for the supporting theory which makes the easy grasp of the findings.

Study Objectives

This study aims to identify phonological processes involved in nativization in Marangu and Kibosho dialects of Chagga language. The study observes the stated phonological processes as used in English language and analyses if they exist and how they happen/used. In doing so, the study is limited only on phonological processes of nativized words specifically on vowel epenthesis, consonant deletion, cluster tolerance and feature change. This will derive some of English phonological processes and their realization in the two varieties of Chagga.

The second objective is describing the similarities and differences between English and Kibosho and Marangu dialects of Chagga language. This study is implicitly observing possible variations occur in between English loan words from different languages of the world and that of Chagga from Standard Swahili. The variation is explained in each process.

Study Significance

This study provides assistance to linguists with information that they may little have or never been aware of with view to phonological processes of nativized words. The study also is of, significant as it inserts knowledge to the continuing studies on the loanword phenomena in Bantu languages. It is expected that this study on nativization of Marangu and Kibosho dialects of Chagga language loanwords is an important source of information on African linguistic studies and it will add to scholarly knowledge through the use of 'CV' Phonology theory. It is a useful linguistic study for it emphasize on upgrading local contents.

The study also invites language scholars to engage in the use of smart instruments for data collection and by doing so one improves his/her techknowledge ability. The at hand study is believed of promoting local and Bantu language for it alert language users all over the universe to come up with the improvement of the same study and even rather related study. Chagga users get to know how their native language is of important on how they are to promote, protect and preserve their local linguistics studies.

THEORETICAL REVIEW

This study is carried out by Generative CV Phonology developed by linguists, Keyser and Clements 1983. This theory strives to guide the present study on scrutinize phonological processes with their rules govern in Marangu and Kibosho varieties. This theoretical framework provides a great and prominent significant role on a Bantu language analysis from north eastern part of Tanzania. Phonological environments refer to the surrounding sounds of a target speech sound, or target phone, in a word. The phonology environment of a

phone can sometimes determine the allophonic or phonemic qualities of a sound. Meanwhile phonological processes are prescribed ways of analyzing speech sounds of any language of human.

They are the patterns that young children, use to simplify adult speech. Generative CV-Phonology is a nonlinear model focused on the syllable structure that was developed by Clements and Keyser 1983. The theory grasps that many phonological rules only receive appropriate formulations regarding the syllable. Clements and Keyser affirm that a syllable is a phonological unit that plays a noteworthy role in determining the organization of segments in a language. Many phonological processes in language are motivated by the need to maintain the preferred syllable structure of the language.

The Generative CV Phonology model was built upon Kahn's 1976 theory of syllable representation. Kahn's model of the syllable has two tiers, to be exact the syllable line and segmental level. Clements and Keyser modified Kahn's model by introducing a third layer, known as CV tier to reconcile between the syllable tier and the segmental level. The CV line was introduced so as to tackle the shortfalls identified in Kahn's model. Clement and Keyser clarify that in his study Khan proposed to expand the notion of phonological representations assumed in such works as Chomsky and Halle's Sound Pattern of English, 1968 by introducing a new tier of representation involving strings of the symbol [s] representing the node 'syllable' (1983: 3). Hence the modification of Khan's notion was done.

METHODOLOGY

Method

This very study is a phonological study in Bantu language particularly Chagga language. The study employs qualitative method to scrutinize phonological processes of nativized loanwords in Kibosho and Marangu dialects of Chagga language, from Standard Swahili language. The well dexterity of (2009) with a total numbers of (201) data both verb inventory and noun inventory category, is of useful data source with current usage of the lexemes by the five prominent speakers of the two selected varieties of Chagga language. The studied areas provide at hand study with accurate information as the chosen respondents were of well informants three from Kibosho and two Marangu varieties of Chagga language.

The criterion used to select informants is the fact that the informants are Chagga speakers and of the two selected variety with standard Swahili ability. Not only native and active speakers were selected, but also aging was a prior factor for selecting respondents for analyzing the corpus with much wisdom and credibility to the linguistic knowledge for Bantu speakers. The at hand study employs interview technique for stimulating the knowledge on nativazation phenomenon towards respondents. The researcher employ voice note to acknowledge advancement of science as well as getting the pure utterance of lexemes from respondents. Furthermore he uses introspection linguistics data collection for lexeme categorizing.

In data presentation of the study, Firstly; the researcher discussed the phonemes of studied language in comparison with English language with its syllable structures and cluster. Then empir-

ical analysis is done to categorize collected corpus and arrange them systematically referring to their word classes as data 1 to be named appendix one (1) thus verbs, and data (2) two as nouns. This has softened the reduplication of contents. Secondly; Phonological processed words are sorted for instrumentalizing syllable structure that the researcher easily analyzes the collected data. Then the researcher phonetically runs the transcription for determining the phonological process. Then the study on phonological processes of nativized words from standard Swahili was verified by the help of the CV-Generative Phonology structure theoretical framework. Thus the foundation of the study is guided with the overview of this theory. The theory determines the results as when they co-occur one another. This phonological rule is used to test the collected data and the information provided by respondents.

DATA ANALYSIS

In this session the study observes the selected phonological processes that are frequently found in Chagga language particularly Kibosho and Marangu varieties. The processes include vowel epenthesis or also named vowel deletion, consonant deletion, cluster tolerance and feature change. All these are the phonological processes occurred due to the mentioned earlier reasons as far as linguistics is concern. The study simultaneously provide the answers to the second study question in each end of the discussed process for similarities and differences.

Vowel Epenthesis

This phenomenon deals with the insertion of vowel between two consonants or after a consonant in a syllable final position. The below example provide lexemes from Arabic language to standard Swahili with its transcriptions and the gloss of such lexemes. This is shown in data beneath;

Arabic Coding Formal Transcription	Swahili Coding	English Coding
1. Sebab /sa.ba.bu/	sababu	reason
2. Unwan /a.nwa.ni/	anwani	address
3. Adhuhr /a u.hu.ri/	adhuhur	trouble
4. Urs /a.ru.si/	arusi	wedding

The above data provide the vivid of what is referred to be phonological vowel epenthesis whereby some vowels undergo changes soon after been borrowed from Arabic language to Swahili. The process happens also for making native speakers of Swahili easier pronunciation of nativized lexemes.

In English language, epenthesis (insertion) is one of the PSSRs aimed at breaking up consonant clusters. This is a dominant process in any language in that segment clusters are disallowed in pronunciation as they make segmental sequence obscured. This process consists of four categories namely; vowel insertion, anaptyxis, prothesis and consonant insertion at the word middle position which are all found in English language lexemes. Insertion in Chagga involves anaptyxis and prothesis by inserting a vowel so that to have practically easy articulation. The infringement of practicality in the epenthetic segment in Chagga has no equivalent in the input. Vowel epenthesis in Chagga loanwords borrowed from Swahili may be explained in view of the variations in the syllable systems of both languages. There are different forms of vowel insertion occurring in the Chagga loanwords nativization: prosthesis and anap-

tyxis. Prothesis is motivated by morphological factors; while Anaptyxis is motivated by PSSRs in Chagga loanwords. Thirty words are absolutely a result of vowel insertion.

The study found that, in English epenthesis is often motivated by the need to make consonant contrasts more distinct. For instance in some English varieties such as Ireland, South Africa and Scotland vowels are inserted for breaking the cluster. For instance the English lexeme as, i.e. film. The study also observes that this category of insertion can be brought about by different means in which the major cause is said to be a non-standard pronunciation. For example: Lexemes, athlete, film. Thereafter this study declares that the same process done in Chagga language appeared to be done in English with the same rule. Observe the below English example:

i) Film → / ***filəm***/ [epenthesis due to dialect distinction]
ii) /*ath**a**lete*/ → athlete [epenthesis due to non-standard pronunciation]
iii) /*fil**u**m*/ → film [epenthesis due to non-standard pronunciation]

The second category in insertion is what in English referred to as anaptyxis. Anaptyxis is a phonological process where an extra vowel is inserted between two consonants. From field data it is seen that this process commonly takes place in Chagga nativized loanwords. Let us consider the following four derived data from the corpus whereby their phonological environment are as similar to those of English:

Swahili	**Chagga**	**Gloss**
a. Shtua	sutua	‘astound’ i)
b. Trekta	itirekita	‘tractor’
c. Shtuka	isutuka	‘be astound’
d. Boksi	ibookisi	‘box’

In fact data (a) and (b) above vowel is inserted between the consonants for the purpose of breaking the consonant sequences as well as to make easy for articulation. This process is therefore motivated by PSSRs which results in obtaining the preferred syllable structure in Kibosho and Marangu varieties of Chagga particularly, that is, CV. Explicitly a syllable gets inserted in between consonants in order for Chagga speakers particularly Kibosho and Marangu origin to have preferred syllable structure. To address problem three of the study the phonological rule derived in this process denotes that English anaptyxis is also adapted in Chagga nativized lexemes.

The third category that this study observes in insertion is prosthesis. Prosthesis is among English phonological process involving vowel insertion at word initial position. In English language, prothesis which is linguistically derived from post-classical Latin based on Ancient Greek [πρόθεσις] to mean placing before.`` Thus the study concludes that, it is the linguistics process that focuses on adding a sound or syllable in the word initial word position without changing the lexeme`s semantic category or it`s etymological structure.

It is observed that, in English language prothesis is highly utilized since Middle English and Old one by scholars like William Shakespeare and Edgar Alan Poe in poetic writing purposely on rhythmical manner and to raise emphasis. For instance Poe in English language literary text; the stanza states:

…``*Thus much let me **avow**, you are not wrong who deem*``…

The vowel **`a`** is inserted in the initial lexeme vow purposely to make literary piece more rhythmic by Poe. Shakespeare in his poetic writing he provided an example of English prothesis such in the following stanza saying;

ii) …``*Tearing of papers, breaking rings* ***a-twain****, storming her world with sorrows wind and rain*``…

The poet wanted to put more emphasis on his reading by inserting vowel **`a`** at lexeme `twain` purposely by the vowel insertion in the initial word position. Furthermore another Poe literary work is observed in the English stanza;

iii) …``*What though that light thro` storm and might so trouble from* ***afar***``...

The poet uses prothesis as vowel **`a`** for giving pace of rhythm. Thereafter English language uses mostly inserted vowel sound **/a/** for as its prothesis marker. Meanwhile this study claims that, in Chagga a high front vowel **/i/** gets inserted at the word initial position. For instance the below twelve stipulated Chagga lexemes nativized from Standard Swahili:

Swahili	**Chagga**	**Gloss**
a. Tawanya	itawanya	‘stretch’
b, Ua	iwa	‘flower’
c. Dirisha	itirisha	‘window’
d. GariI	kari	‘car’
e. Godoro	igodoro	‘mattress’
f. Shati	ishati	‘shirt’
g. Boksi	ibokisi	‘box’
h. Shone	ishona	‘stitch’
i. Basi	ibasi	‘bus’
j. Trekta	iterikita	‘tractor’
k. Shimo	ishimo	‘outlet’
l. Yai	iyai	‘egg’

At present study observes that in Chagga language a front high vowel /i/ is inserted at the word initial position as triggered by environment of different consonants/b/ ,/d/, /k/, /ʃ/ and /y/. The process is thus motivated by PSSRs which results in obtaining the preferred syllable structure in particularly the two varieties researched. Moreover, a front high vowel is inserted at the environment that is the result of succession of the two vowels taken from Swahili language.

1. i.e. Ua iwa ‘flower’

From the above data a high back vowel /u/ glides to /w/ so that to allow insertion of a high front vowel /i/. This is because in Chagga a succession of three vowels sound is not allowed.

The last and the fourth category of insertion discussed in this study is consonant insertion at the word middle position. As sound segments in English structure, consonant insertion in Kibosho and Marangu dialects of Chagga involves the insertion of a consonant between vowels to break a sequence of two vowels. This study observes that, not only vowels can be inserted but in English sometimes consonant can be attached at the middle of the syllable for the phonotactics reasons. Provided a prominent example in English language on the use of definite and indefinite articles [a, an]. In English language we can consider article ***`an`*** with consonant [n] to be useful in phonology of breaking the cluster of two vowels. Consider the following; [***a apple → an apple***]. The study observes three Chagga lexemes of this consonant insertion at the middle position.

Swahili	**Chagga**	**Gloss**
a. Jua	ruva	‘sun’
b. Suruali	suruvali	‘trouser’

Consonant Deletion

In this phonological process, some words violate consonants so as to respect the syllable structure of the Bantu

languages which is CVC. The process isi) done for that the lexemes adopt theii) word system of the target language. Ex-iii) amples are stipulated below;

Arabic Coding	Kiswahili Coding
Ammar	amiri
Budd	budi
Assubh	asubuhi
Formal Transcription	**English Coding**
/a.mi.ri/	begin
/bu.di/	alternative
/a.su.bu.hi/	morning

This is to say the nativized lexemes from Arabic language are experiencing consonant deletion phonological process for making phonotactics resemblance of the borrowed lexemes. The syllable structure of Bantu language influences the process to take place hereby speakers could easily utter the nativized words.

In English linguistics, a sound, such as a stress less syllable or a weak consonant, is not pronounced; for example, most American English speakers do not pronounce the phoneme [d] in lexeme "handbag", phoneme [n] in lexeme "condemn", and phoneme [k] in lexeme "know". Hence, it can be denoted as a process by which a sound present in the phonemic form is removed from the phonetic form in certain environments for ease of production. Thus there are three types of deletion in English and some Germanic languages: aphaeresis which is initial deletion as in English phrase ***[I am → I'm, I have → I've]*** or the initial loss of /k/ before /n/ as in ***know, knight***, syncope is formative internal deletion: the term is most frequently used with vowel loss, but some authors broaden it to consonants as well. This can be seen in American and British forms of certain lexemes:

/sɛkrɪtɛri/ vs. /sɛkrɪtrɪ/ → 'secretary'
'Sign '→ assign.

Meanwhile apocope is the loss of a final element as phoneme /t/ before a word beginning with another consonant in English language, ***' last time'***, also low stress words may lose their finals as in lexeme ***['and', 'of'].***

This study observed three categories of consonant deletion in Chagga namely; Apocope, syncope and aphaeresis as is stated in English language above. In chagga thereafter apocope is the deletion of a sound, usually a vowel at the word final position. In Chagga loanwords, Apocope affects syllables. Two syllables at the word final position are deleted as shown in the following example of Chagga loanwords.

Swahili	**Chagga**	**Gloss**
Chakula	chao	'food'

The first category to be discussed in here is syncope. As stated above on English likewise in Chagga language this process occurs when there is loss of a segment in the medial position of a word. This affects syllable in Chagga loanwords nativization especially in Kibosho and Marangu varieties which are the more standardized one. Hence Chagga language loss of a vowel appears at the central of the word, not from initial position, nor from word final position in rapid speech. Consider the following four extracted data from Chagga language found in this study:

Swahili	**Chagga**	**Gloss**
a. Kisu	'kyandu'	knife
b. Kikapu	'kkabu'	basket
c. Kijiko	'kliko'	spoon

Thus, a high back vowel is silent when preceded by a voiceless plosive velar

sound. For the study to adhere study problem two it discovered equal comparison between English and Chagga languages. The minor different is easily observed only on the deleted phonemes though the processes applied to both languages in their nativized lexemes.

Secondly, is the deletion in the initial position namely aphaeresis. In English; Aphaeresis is a phonological process in which a segment is deleted at word or syllable initial position as explained previously. This change occurs in six lexemes of Chagga language particularly Kibosho and Marangu varieties whilst loanwords from Standard Swahili are nativized. The following data as collected from field and written document show how sound segments are word initial position deleted.

	Swahili	**Chagga**	**Gloss**
a.	Baba	aba	'father'
b.	Kufa	fo	'to die'
c.	Kula	lya	'to eat'
d.	Kunywa	nna	'to drink'
e.	Nyumba	mba	'house'

Generally, in extract above the bilabial plosive / b/, velar plosive /k/, and nasal /ŋ/ in Chagga (Kibosho) is deleted in the process of nativization. From data b – e, the whole syllable get deleted in the environment of word initial position. To answer study question two thus, the study claims that the deletion of sounds at initial lexeme is both recognized in English and in Chagga nativized lexemes.

Thereafter to represent study question two, the study discovers that, a consonant sound gets deleted at the word initial position during nativization of words from Swahili in Chagga as sometimes occur in English nativized words from other languages.

Cluster Tolerance

There are few cases where recipient language maintains the cluster that was in borrowed language as stipulated in the below extract.

Arabic Coding	Kiswahili Coding
Izz	enzi
Unwan	anwani
Amr	amri

Formal Transcription	English Coding
/en.zi /	power
/a.nwa.ni/	address
/am.ri/	command

a.

As stated above the example provided are borrowed lexemes that abide with the rule of retaining their former state of phonetics. The change of the phonotactics are not emphasized in such lexemes from Arabic language shifted to Swahili. Thus there is a great retain of lexeme cluster as the words do not change their structure.

Chagga language as well as how English does, it admits consonant clusters as a phonological co-occurrence. Any English syllable can begin with a vowel, with one, two or three consonants. The study with scholars, observes that no lexeme in English begins with more than three consonants this means the maximum number of segments in the word initial consonant cluster is three. On the other hand, the study observes that, some of the loanwords from Standard Swahili were found to have retained consonant clusters in the borrowed Swahili words. Consider the following findings from Swahili to Chagga language with its gloss in English as taken from the corpus:

Swahili	**Chagga**	**Gloss**
a. Anza	ansa	'start'

b. Chumvi	shumbi	'salt'
c. Dhambi	sambi	'sin'
d. Chumba	shumba	'room'
e. Chemsha	shemsha	'boil'
f. Zungumza	sungumsa	'chat'
g. Vimba	imba	'swell'

The present study clearly observes that, the beneficiary language has tolerated the consonant cluster [mb], [mʃ], [mz] and [nz, ns] that are permissible in Chagga language. Cluster tolerance in Chagga language is generated by prestige as it overrules well-formedness. Although the beneficiary language has a means of adapting innovative words, sometimes not all syllables are changed; there is a high level of broadmindedness. Nonetheless, from the study it is observed that Chagga and Swahili languages are Bantu languages so it is likely to share some phonological features as words were found to have retained the phonotactics of the lending language.

Feature Change

Sometimes, features of the borrowed words like as observed in English language, are changed since it might happen that there are some phonemes that are in borrowed language but not found in the recipient language. If this happen, then it has to be changed to the nearest equivalent in the recipient language. The following are the examples where Arabic /q/ and /kh/ are realized as /k/ and /h/ respectively.

Arabic Coding	Kiswahili Coding
Waqf	Wakfu
Usquf	Askofu
Waqt	Wakati

Formal Transcription	English Coding
/wak.fu/	Religious endowment
/a.sko.fu/	Bishop
/wa.ka.ti/	Time

Afterward, Massamba states that in phonology of a language there are some natural processes which could not be found in every language (2010). He further argues that during the phonological processes a sound segment is made alike to behave more like a neighboring segment? In other words a segment may acquire features from a neighboring segment. The process may be whether progressive or regressive. Moreover, there also non assimilatory processes which could also occur in a language and it is very difficult to provide clear reason as to why they occur.

CONCLUSION

Summing up: To answer study question one the study observes there are three major causes of phonological processes in Chagga as in English with very little variations namely: Phonological processes motivated by syllable structure rules [vowel insertion/ epenthesis], Phonological processes in Chagga language affecting syllable [consonant deletion] and Phonological processes motivated by phonemic reasons [cluster tolerance, feature change]. In adhering problem two the study has found similar phonological processes between English and Chagga with very little differences especially on phonemes which undergo the changes hence advocates for further analyses in local African and Asian languages to pursue a similar study or any nearly phonological study in order to preserve and promote local linguistics contents from ones native language.

The scrutiny also shows that vowel epenthesis/prothesis is more common than vowel epenthesis/anaptyxis which made the study recognizes the little var-

iation with that of English. Supplementary the study instituted that for insertion processes in the two varieties only one vowel sound; /i/ is inserted in the word initial position during prosthesis process as well as anaptyxis in Chagga language in specific Kibosho variety.

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APPENDIX 1: THE INTERVIEW GUIDE QUESTIONS

a) Kindly point out some loanword you are aware of.

b) Assuming that you borrow a lexeme from a new language, do you encounter any language modification?

c) Kindly adhere to the following lexemes and inform me if they are etymologically from your variety.

d) Kindly with your own mother tongue pronounce the following lexemes.

APPENDIX 1: DIRECTORY OF NATIVIZED WORDS FROM SWAHILI IN CHAGGA- NOUN CATEGORY

s/n	Swahili	Chagga	Word categ-ory	Gloss
1	Apizo	apiso	N	curse
2	Adhabu	asabu	N	punishment
3	Bakuli	bakuri	N	bowl
4	Basi	ibaasi	N	car
5	Baba	papa	N	father
6	Binamu	binaamu	N	cousin
7	Blanketi	iblangeti	N	blanket
8	Boksi	ibookisi	N	box
9	Chai	shai	N	tea
10	Chafua	shafuo	N	make dirty
11	Chakula	chao	N	food
12	Chama	chaama	N	club
13	Chako	shako	N	yours
14	Cheka	seka	N	laugh
15	Chenza	ishenza	N	tangerine
16	Chokaa	shokaa	N	lime
17	Choroko	shoroko	N	green gram
18	Chubua	shubua	N	bruise
19	Chuma	shuma	N	iron
20	Chumba	shumba	N	room
21	Chumvi	shumbi	N	salt
22	Chupa	shuba	N	bottle
23	Chupi	shubi	N	underpants
24	Dagaa	dakaa	N	very small fish
25	Damu	samu	N	blood
26	Dawa	dava	N	medicine
27	Debe	ideve	N	tin
28	Debe	ideve	N	tin
29	Dhahabu	sahabu	N	gold
30	Dhamana	samana	N	guarantee
31	Dhambi	sambi	N	sin
32	Dharau	sarau	N	scorn
33	Dirisha	dirisha	N	window
34	Embe	imweembe	N	mango
35	Garama	karama	N	expenses
36	Gari	ikari	N	car
37	Godoro	ikodoro	N	mattress
38	Gunia	ikunia	N	sack
39	Iva	ira	N	ripen
40	Jembe	iyembe	N	hoe

41	Jicho	riso	N	eye (singular)
42	Jiko	riko	N	kitchen
43	Jina	rina	N	name
44	Jiwe	iwe	N	stone
45	Jua	ruva	N	sun
46	Kiatu	chaatu	N	shoe (singular)
47	Kijiko	kiliko	N	spoon
48	Kikapu	kikabu	N	basket
49	Kiporo	kiboro	N	food left – over
50	Kisu	kishu	N	knife
51	Kitanda	kitara	N	bed
52	Kufa	fo	N	to die
53	Kula	lya	N	to eat
54	Kunywa	nna	N	to drink
55	Macho	meso	N	eyes (plural)
56	Mate	mata	N	saliva
57	Maziwa	maruva	N	milk
58	Mburu	mburu/mbusi	N	goat
59	Mchawi	msai	N	witch
60	Mdogo	mdoko	N	younger
61	Meza	mesa	N	table
62	Mkopo	mkobo	N	credit/debit
63	Mlango	mwaango	N	door
64	Moto	modo	N	fire
65	Msitu	msutu	N	forest
66	Mvi	mfi	N	grey hair
67	Mvua	mfua	N	rain
68	Mwezi	mweeri	N	moon
69	Mwoga	mwoova	N	coward
70	Mzimu	mrimu	N	spirit of dead person
71	Mzinga	mringa	N	beehive
72	Mzungu	msuungu	N	white man
73	Nazi	nasi	N	coconut fruit
74	Nchi	nji	N	territory/country
75	Ndugu	nduku	N	brother
76	Ng’ombe	umbe	N	cow
77	Ngazi	ngasi	N	stair
78	Ngozi	ngosi	N	skin
79	Nguruwe	nguve	N	pig
80	Nguvu	ngufu	N	strength
81	Njaa	nshaa	N	hunger
82	Njaa	nshaa	N	hunger
83	Njia	nshia	N	path
84	Nyanya	nyaanya	N	tomato
85	Nyoka	njoka	N	snake
86	Nyonya	onga	N	suck
87	Nyuki	njuki	N	bee

88	Nyumba	mba	N	house
89	Nyundo	nundu	N	hammer
90	Nzi	insii	N	fly
91	Paka	baka	N	cat
92	Pakua	bakuo	N	serve
93	Pambana	bambana	N	struggle
94	Panga	ibanga	N	bush knife
95	Panga	ibanga	N	arrange
96	Papai	ibabai	N	pawpaw
97	Pera	ibera	N	guava
98	Pesa	besa	N	money
99	Pete	bête	N	ring
100	Picha	pisha	N	picture
101	Pilipili	bilibili	N	pepper
102	Pipa	ibiba	N	barrel
103	Povu	pofu	N	foam
104	Pua	mbua	N	nose
105	Shangazi	shangasi	N	aunt
106	Shati	ishati	N	shirt
107	Shimo	ishimo	N	hole
108	Shingo	singo	N	neck
109	Shule	sishuule	N	school
110	Shtua	sutua	N	astound
111	Suruali	suruvali	N	trouser
112	Tawanya	itawanya	N	strech
113	Tone	itone	N	drop
114	Trekta	itirekita	N	tractor
115	Ua	iwa	N	flower
116	Uchawi	usawi	N	magical
117	Uchungu	ushungu	N	bitterness
118	Ufagio	ufakio	N	broom
119	Ugali	ukari	N	gar
120	Ugonjwa	ugonshwa	N	illness
121	Upya	uiya	N	newness
122	Utelezi	utelesi	N	slipperiness
123	Utu	undu	N	virtue
124	Uwanja	uwansha	N	play ground
125	Uwezo	uweso	N	ability
126	Uzito	urito	N	weight
127	Viatu	fiatu	N	shoes (plural)
128	Vita	fita	N	war
129	Vitu	findo	N	objects
130	Watu	vandu	N	people
131	Wazimu	warimu	N	craziness
132	Yai	iyai	N	eggs
133	Zaka	saka	N	ten percent
134	Zamu	samu	N	shift

135	Mji	mri	N	homestead
136	Miaka	maka	N	year
137	Mwezi	meri	N	month
138	Mbegu	mbeu	N	seed
139	Ulimi	olumi	N	tongue
140	Pembe	ombe	N	horn
141	Jino	ihiho	N	tooth

APPENDIX 2: DIRECTORY OF NATIVIZED WORDS FROM SWAHILI IN CHAGGA - VERB CATEGORY

s/n	**Swahili**	**Chagga**	**Word category**	**Gloss**
1	Adhabu	asabu	V	punishment
2	Ambukiza	ambukisa	V	transmit
2	Meza	mera	V	swallow
3	Angaza	angasa	V	light
4	Anza	ansa	V	start
5	Chafua	shafua	V	make dirty
6	Chambua	shambua	V	clean
7	Cheka	seka	V	laugh
8	Chelewa	shelewa	V	delay
9	Chemsha	shemsha	V	heat
10	Chenga	sheenga	V	avoid by trickery
11	Chinja	shinja	V	butcher
12	Choka	shoka	V	tired
13	Chora	shora	V	draw
14	Chuki	shuki	V	hate
15	Chukiza	shukiza	V	displease
16	Fua	ifua	V	wash clothes
17	Fyeka	ifeka	V	slash
18	Koroga	koroka	V	stir
19	Kufa	fa	V	die
20	Kula	lya	V	eat
21	Kunywa	nywa	V	drink
22	Meza	mera	V	swallow
25	Nyima	ima	V	deny
26	Nyonya	onga	V	suck
27	Ogopa	ohova	V	fear
28	Pakua	bakua	V	dish up
29	Panga	ibanga	V	arrange
30	Pima	bima	V	measure
31	Pita	ida	V	pass
32	Saga	saha	V	grind
33	Shona	ishona	V	sew
34	Shutuka	ishutuka	V	startle
35	Tawala	tavala	V	govern

36	Tawanya	itavanya	V	spread
37	Tega	teka	V	set a trip
38	Tetemeka	itetema	V	tremble
39	Tua	itua	V	put down
40	Tuma	duma	V	send
41	Ua	waa	V	kill
42	Vimba	imba	V	swell
43	Vua	dua	V	take off
44	Washa	ata	V	light
45	Zomea	somea	V	mock
46	Zunguka	sunguka	V	revolve
47	Zungumza	sungumsa	V	chat
48	Chafuka	shafuka	V	become dirt
49	Ota	odia	V	dream
50	Weka	vika	V	put
51	Ona	wona	V	see
52	Vaa	raa	V	wear
53	Lima	suma	V	dig
54	Toa	duo	V	take away
55	Ruka	runduka	V	fly
56	Kua	kuo	V	get big
57	Lala	laa	V	sleep
58	Funga	shinga	V	close
59	Twende	honde	V	let go
60	Njoo	nshio	V	come