

Phonological Rules Governing English Loanwords in Lontómbá Language

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To cite this article:

Jean Paul Mola Mbeba. Phonological Rules Governing English Loanwords in Lontómbá Language. *Communication and Linguistics Studies*. Vol. 7, No. 1, 2021, pp. 1-5. doi: 10.11648/j.cls.20210701.11

Received: November 1, 2020; **Accepted:** November 12, 2020; **Published:** January 4, 2021

Abstract: People on Earth get in touch for diverse reasons such as trade, migrations, tourism, and work. These people speak different languages and desire to communicate. In this context, the language problem (language barrier) occurs in their communication because of differences in languages. This barrier does not prevent them from speaking because the communication desire obliges them to interact. But while interacting, words are borrowed from one language to another. Therefore, there is a co-penetration of linguistic expressions. That is, words of one language can be used in another one and vice versa. Such words, most of the time, undergo changes in spelling and pronunciation. Considering the case of Lontómbá speakers and English ones, one can notice that Lontómbá speakers have borrowed words from English through different contacts with English speakers (missionaries). Up to now there is not any scientific explanation about these borrowings that can help understand exactly the adaptation of the English borrowings in Lontómbá. Therefore, the problem that leads to conduct this research is the remarkable lack of a reliable scientific explanation of English loanwords in Lontómbá language. The aim of this article is to find out the phonological rules that govern the change in pronunciation of the English loanwords in Lontómbá language. After the analysis of a corpus of 100 English loanwords in Lontómbá, this paper has found out the phonological rules explaining the change in pronunciation of the English loanwords.

Keywords: Loanwords, Lontómbá, Phonological Changes, Phonological Rules, Epenthesis, and Language Contact

1. Introduction

Lontómbá language has borrowed words from the English language. These English loanwords have lost their original spelling and pronunciation. The change in pronunciation of the English loanwords in Lontómbá has not yet been explained scientifically. So the aim of this article is to find out the phonological rules that govern the change of the English loanwords in pronunciation. To reach this aim, there is necessity to answer the following questions:

- (1) Why do the English loanwords change their pronunciation in Lontómbá language?
- (2) Do these changes occur at random?

As far as data are concerned, 100 English loanwords in Lontómbá were collected in a corpus, and analyzed on the basis of the Corpus-based explanation approach which focuses on the explanation of change in pronunciation in order to point out a scientific explanation.

This article presents a background about how the

Lontómbá language came to borrow the English words and some sociolinguistic concepts such as language contact, loanwords, and phonological changes. Apart from the background, data are analyzed so as to understand the phonological changes occurred in the pronunciation of the English loanwords used in Lontómbá. The results of analysis lead to the phonological rules governing English loanwords in Lontómbá.

2. Background

The arrival of American missionaries in Bikoro has put the English language in contact with the Lontómbá language. Through this contact, some English words have been borrowed from English to Lontómbá. This contact is known as a linguistic phenomenon as Mao and Hulden state that “*borrowing lexical items from one language to another is a common linguistic phenomenon*” [1]. Beel and Felder explain it in this way: “*this is a linguistic phenomenon that occurs*

cross linguistically whenever one language interacts with another language, and generally when one word exists in one language but not in the second language [2]. Besset supports this view by saying that “*language contact usually results in the use of one-item lexical element from a donor language into a recipient language*” [3] The English loanwords have been changed morphologically and phonologically. The focus is on the phonological change. The English words have a pronunciation which is different from the one of Lontómbá language. In other words, The English words carry sound features which are different from Lontómbá language. Nagy argues that “*loanwords may carry sounds, prosodic and phonotactic patterns that are unknown in the borrowing phonology...*” [4]. Therefore, the English loanwords have been integrated phonologically in Lontómbá. That is, the English words have been altered to fit the Lontómbá phonological system. Aktürk-Drake points out that “*in the phonological integration of loanwords, the original structure of the donor language can either be preserved (i.e. adopted) as innovations or altered to fit the existing system of the recipient language (i.e. adapted)*” [5]. To fit the Lontómbá phonological system, the English loanwords have been reshaped so as to facilitate the pronunciation as Kenstowicz affirms that

When the phonemic and prosodic structures of the two languages do not align then the loan is reshaped to the closest available language alternative measured in terms of the phonological features operative in the recipient language and their location in feature geometric and prosodic structure [6].

The pronunciation of the English words does not depend on the pronunciation of the English letters as Diaz states that “*pronunciation cannot be based on letters, but on independent sounds*” [7]. Therefore, The English loanwords have been adapted in Lontómbá by the process of epenthesis. That is, the spelling of the loanwords has undergone phonological changes by inserting vowels in the English loanword clusters as Jaradat argues that “*phonological processes are usually used to represent the way in which certain sounds undergo phonological changes or alternation in specific environments*” [8]. Some vowels are inserted in the English loanword clusters so as to facilitate the pronunciation. Repetty says that “*an epenthetic vowel is a vowel inserted into a phonological environment to repair a marked or illegal structure*” [9]. The insertion of vowels in the English loanword clusters aims to conform the English loanwords to the Lontómbá phonological system. Guba is of the view that “*loanwords are usually required to conform to the phonological, morphological and syntactic rules/constraints of L1 to the extent that they become integrated into native phonology through a gradual and a complicated process*” [10]. In the discussion below, the concern is to find out the phonological environment that might govern the insertion of vowels that leads to the phonological changes of the English loanwords in Lontómbá as Obied stipulates that “*Phonological rules describe how phonemes are realized as their allophones in a given environment*” [11].

3. Data Collection and Analysis

To find out an explanation of the phonological changes of English loanwords in Lontómbá, 100 English loanwords were collected from interview and listening through observation. These English loanwords adapted in Lontómbá were opposed to their original form so as to study the changes occurred in the adaptation process.

In the following discussion, the analysis is done at two levels. The first analysis focuses on the integration of vowel sounds, and the second one deals with the integration of consonant sounds.

4. Discussion

Cathcart says that “different sounds, regardless of their similarity along a large number of phonetic dimensions, are subject to different articulatory and perceptual constraints” [12]. In the following lines, the sound articulations are examined so as to understand how one sound changes into another one. Firstly, the focus is on the phonemic integration of the English vowel sounds in Lontómbá, and then the phonemic integration of the consonant sounds.

4.1. Phonemic Integration of English Vowel Sounds in Lontómbá

The English vowel sound [ɜ:] changes into the sound [a] when it is preceded by either the sound [t] or the sound [dʒ].

ENGLISH	LONTÓMBÁ
[ɜ:]	[a]
Mammy water	Mamiwata
Master	Masta
Soldier	Soda

The English sound [m] near the sound [ə] changes it into [e] in Lontómbá. When the sound [p] is nasalized in Lontómbá by preceding it by the sound [m], the sound [ə] changes it into [e] in Lontómbá.

ENGLISH	LONTÓMBÁ
[ə]	[e]
Corner	Konele
Drummer	Dulumere
Keeper	Kempele
Meter	Metele

The sound [k] changes the sound [ɜ:] into the sound [o] in Lontómbá when it precedes the sound [t]. Furthermore, the sound [p] changes the English sound [ɜ:] into the sound [o] in Lontómbá when it is not nasalized by preceding it by the sound [m].

ENGLISH	LONTÓMBÁ
[ɜ:]	[o]
Doctor	Dokotolo
Peter	Petelo

The sound [ɜ:] is changed into the sound [i] when it is preceded by the sound [g].

ENGLISH	LONTÓMBÁ
[ʒ:]	[i]
Sugar	Sukali

The English sound [a:] changes into the sound [e] in LONTÓMBÁ.

ENGLISH	LONTÓMBÁ
[a:]	[e]
Guitar	Kitale

The sound [a:] changes into the sound [a] in LONTÓMBÁ when preceded by the sound [m].

ENGLISH	LONTÓMBÁ
[a:]	[a]
Mark	Malako

The sound [ʌ] changes into the sound [o] in Lontómbá.

ENGLISH	LONTÓMBÁ
[ʌ]	[o]
Brush	Bolosi
Cup	Kopo

The sound [æ] changes into the sound [e] in Lontómbá when it precedes immediately the sound [k].

ENGLISH	LONTÓMBÁ
[æ]	[e]
Back	Beki

The sound [æ] changes into the sound [a] in Lontómbá when it precedes immediately by either the sound [n] or the sound [θ].

ENGLISH	LONTÓMBÁ
[æ]	[a]
Blanket	Molangeti
Bath	Baafu

The sound [i:] changes into the sound [e] in LONTÓMBÁ when it follows immediately the sound [m].

ENGLISH	LONTÓMBÁ
[i:]	[e]
Meeting	Mentingi

The sound [u:] changes into the sound [u] in Lontómbá when it follows immediately the sound [b].

ENGLISH	LONTÓMBÁ
[u:]	[u]
Bureau	Bulo

Diphthongs

The sound [ei] changes into the sound [a] in Lontómbá.

ENGLISH	LONTÓMBÁ
[ei]	[a]
Lake	Laki

The sound [aɪ] changes into the sound [i] in Lontómbá when it follows the sound [b]

ENGLISH	LONTÓMBÁ
[aɪ]	[i]
Bicycle	Bisengeleti

The sound [aɪ] changes into the sound [ei] in Lontómbá when it follows the sound [r] which is changed into the sound [l] in Lontómbá.

ENGLISH	LONTÓMBÁ
[aɪ]	[ei]
Alright	Oleiti

The sound [aɪ] changes into the sound [o] in Lontómbá when it follows the sound [m].

ENGLISH	LONTÓMBÁ
[aɪ]	[o]
My bathe	Mombafu

The sound [aʊ] changes into the sound [o] in Lontómbá.

ENGLISH	LONTÓMBÁ
[aʊ]	[o]
Cowboy	Koboi
Bureau	Bulo

The sound [əʊ] changes into the sound [ua] in Lontómbá.

ENGLISH	LONTÓMBÁ
[əʊ]	[ua]
Boat	Bwato

Triphthong

The sound [aɪə] changes into the sound [iɪa] in Lontómbá.

English	Lontómbá
[aɪə]	[iɪa]
Messiah	Masiya

4.2. Phonological Integration of English Consonant Sounds in Lontómbá

The sound [r] changes into the sound [l] in Lontómbá.

ENGLISH	LONTÓMBÁ
[r]	[l]
Break	Bola
Mattress	Mantela
Present	Pelesa
Jerusalem	Yelusalema
Battery	Bateli
Israel	Isalaeli
Marriage	Maliasi
All right	Oleiti
Cigarette	Singeleti
Radio	Ladio
Petrol	Pitolo

The sound [dʒ] at the beginning of the word changes into the sound [j] in Lontómbá.

ENGLISH	LONTÓMBÁ
[dʒ]	[j]
Jesus	Yesu

Jerusalem Yelusalema

The sound [g] changes into the sound [k] in LONTÓMBÁ.

ENGLISH	LONTÓMBÁ
[g]	[k]
Sugar	Sukali

The sound [ʃ] changes into the sound [s] in LONTÓMBÁ.

ENGLISH	LONTÓMBÁ
[ʃ]	[s]
English	Ngelesa
Brush	Bolosi
Shirt	Soti

The sound [tʃ] changes into the sound [s] in LONTÓMBÁ.

ENGLISH	LONTÓMBÁ
[tʃ]	[s]
Torch	Tolosi

5. Results from Phonological Analysis

5.1. Phonological Integration of English Vowel Sounds in Lontómbá

- 1) The English sound vowel [ɜ:] changes into the sound [a] when it is preceded by either the sound [t] or the sound [dʒ].
- 2) The English sound [m] near the sound [ə] changes it into [e] in Lontómbá. When the sound [p] is nasalized in Lontómbá by preceding it by the sound [m], the sound [ə] changes it into [e] in Lontómbá.
- 3) The sound [k] changes the sound into the sound [e] in Lontómbá when it precedes the sound [t]. Furthermore, the sound [p] changes the English sound [ɜ:] into the sound [e] in Lontómbá when it is not nasalized by preceding it by the sound [m].
- 4) The sound [ɜ:] is changed into the sound [i] when it is preceded by the sound [g].
- 5) The English sound [a:] changes into the sound [e] in Lontómbá.
- 6) The sound [a:] changes into the sound [a] in Lontómbá when preceded by the sound [m].
- 7) The sound [ʌ] changes into the sound [o] in Lontómbá.
- 8) The sound [æ] changes into the sound [e] in Lontómbá when it precedes immediately the sound [k].
- 9) The sound [æ] changes into the sound [e] in Lontómbá when it precedes immediately by either the sound [n] or the sound [θ].
- 10) The sound [i:] changes into the sound [e] in Lontómbá when it follows immediately the sound [m].
- 11) The sound [u:] changes into the sound [u] in Lontómbá when it follows immediately the sound [b].
- 12) The sound [ei] changes into the sound [a] in Lontómbá.
- 13) The sound [aɪ] changes into the sound [i] in Lontómbá when it follows the sound [b].
- 14) The sound [aɪ] changes into the sound [ei] in Lontómbá when it follows the sound [r] which is

changed into the sound [l] in Lontómbá.

- 15) The sound [aɪ] changes into the sound [o] in Lontómbá when it follows the sound [m].
- 16) The sound [aʊ] changes into the sound [o] in Lontómbá.
- 17) The sound [əʊ] changes into the sound [ua] in Lontómbá.
- 18) The sound [aɪə] changes into the sound [iɪa] in Lontómbá.

5.2. Phonological Integration of English Consonant Sounds in Lontómbá

- 1) The sound [r] changes into the sound [l] in Lontómbá.
- 2) The sound [dʒ] at the beginning of the word changes into the sound [j] in Lontómbá.
- 3) The sound [g] changes into the sound [k] in Lontómbá.
- 4) The sound [ʃ] changes into the sound [s] in Lontómbá.
- 5) The double English consonant /ss/ changes into /s/ in Lontómbá.

6. Phonological Rules

a) The vowel sounds of the English loanwords are adapted in Lontómbá on the basis of the phonological environment. That is to say, the sounds surrounding that vowel sound impact on its sound production or articulation.

English	LONTÓMBÁ
[ɜ:]	[a, e, o, i]
[a:]	[e, a]
[ʌ]	[o]
[æ]	[e, a]
[i:]	[e]
[u:]	[u]
[eɪ]	[a]
[aɪ]	[ɪ, eɪ, o]
[aʊ]	[o]
[əʊ]	[ua]
[aɪə]	[iia]

- 1) The English vowel sound [ɜ:] changes into the sound [a] when it is preceded by either the sound [t] or the sound [dʒ].
- 2) The English sound [m] near the sound [ə] changes it into [e] in Lontómbá. When the sound [p] is nasalized in Lontómbá by preceding it by the sound [m], the sound [ə] changes it into [e] in Lontómbá.
- 3) The sound [k] changes the sound into the sound [e] in Lontómbá when it precedes the sound [t]. Furthermore, the sound [p] changes the English sound [ɜ:] into the sound [e] in Lontómbá when it is not nasalized by preceding it by the sound [m].
- 4) The sound [ɜ:] is changed into the sound [i] when it is preceded by the sound [g].
- 5) The English sound [a:] changes into the sound [e] in Lontómbá.
- 6) The sound [a:] changes into the sound [a] in Lontómbá when preceded by the sound [m].
- 7) The sound [ʌ] changes into the sound [o] in Lontómbá.
- 8) The sound [æ] changes into the sound [e] in Lontómbá when it precedes immediately the sound [k].

- 9) The sound [æ] changes into the sound [e] in Lontómbá when it precedes immediately by either the sound [n] or the sound [θ].
- 10) The sound [i:] changes into the sound [e] in Lontómbá when it follows immediately the sound [m].
- 11) The sound [u:] changes into the sound [u] in Lontómbá when it follows immediately the sound [b].
- 12) The sound [ei] changes into the sound [a] in Lontómbá.
- 13) The sound [aɪ] changes into the sound [i] in Lontómbá when it follows the sound [b].
- 14) The sound [aɪ] changes into the sound [ei] in Lontómbá when it follows the sound [r] which is changed into the sound [l] in Lontómbá.
- 15) The sound [aɪ] changes into the sound [o] in Lontómbá when it follows the sound [m].
- 16) The sound [aʊ] changes into the sound [o] in Lontómbá.
- 17) The sound [əʊ] changes into the sound [ua] in Lontómbá.
- 18) The sound [aɪə] changes into the sound [iɪa] in Lontómbá.
- 19) The consonant sounds [r], [ɖʒ], [g], [ʃ], [tʃ] in the English loanwords in Lontómbá are changed into the sounds [l], [j], [k]/[g], [s], [s].

ENGLISH	LONTÓMBÁ
[r]	[l]
[ɖʒ]	[j]
[g]	[k, g]
[ʃ]	[s]
[tʃ]	[s]

- 1) The sound [r] changes into the sound [l] in Lontómbá.
- 2) The sound [ɖʒ] at the beginning of the word changes into the sound [j] in Lontómbá.
- 3) The sound [g] changes into the sound [k] in Lontómbá.
- 4) The sound [ʃ] changes into the sound [s] in Lontómbá.
- 5) The sound [tʃ] changes into the sound [s] in Lontómbá.

7. Conclusion

The loss of the original pronunciation of the English loanwords in Lontómbá has been the concern of the investigation. The analysis has been based on a corpus of 100 English loanwords in Lontómbá. This article has been analyzing the English loanwords in Lontómbá in order to point out the phonological rules that govern the changes of the English loanwords in pronunciation. The analysis has proved that the pronunciation of the English loanwords is not integrated in Lontómbá at random: there are phonological rules that govern it. Two phonological rules have been discovered:

- 1) The vowel sounds of the English loanwords are adapted in

Lontómbá on the basis of the phonological environment. That is to say, the sounds surrounding that vowel sound impact on its sound production or articulation.

- 2) The consonant sounds [r], [ɖʒ], [g], [ʃ], [tʃ] in the English loanwords in Lontómbá are changed into the sounds [l], [j], [k]/[g], [s], [s]. It means that the sound [r] in the English loanword changes into [l], [ɖʒ] into [j], [g] into [k] or [g], [ʃ] into [s], and [tʃ] into [s].

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