**An Investigation of Morphophonological Nativisation of English Loanwords in Nyakyusa**

**Abstract**

Nyakyusa is the Bantu language registered as M.31 and it is spoken in the South-Western part of Tanzania, particularly in Mbeya Region and some parts of Njombe. Similar to other languages, the Nyakyusa also is in contact with the English language whose lexicon is fed by the English loanwords. This study aimed to explore how English loanwords are adapted and integrated into the Nyakyusa language. English is one of the most widely spoken languages globally, and its contact with Nyakyusa has become the primary source of loanwords, with approximately 95 percent of Nyakyusa’s borrowed vocabulary originating from English. The English loanwords in Nyakyusa are adapted to suit the Nyakyusa morphophonotactics because the two languages have dissimilar morphophonotactics. Additionally, English has influenced the phonological structure of Nyakyusa. This is because borrowed words are adapted to fit the sound system of the Nyakyusa language. The theoretical framework for this study is based on the Lexical Phonology and Morphology (LPM) theory. The study adopted a descriptive approach, structured within an interpretive research paradigm, and employed a qualitative research methodology. The study employed a purposive sampling of 14 native Nyakyusa speakers. Data were collected through participant observations, interviews, and documentary reviews and subsequently analysed thematically. The findings revealed that the Nyakyusa language integrates English loanwords through several morphophonological processes, including segmental substitution, vowel epenthesis, glide epenthesis, segmental deletion, and segmental retention. These processes help to modify English morphophonotactic elements that violate the Nyakyusa language norms. The researchers recommend conducting comparative studies on the nativisation processes in other Bantu languages in order to contextualize the findings and highlight unique or shared features within the language family.

**Keywords**: Nyakyusa language, morphophonotactics, loanwords, nativisation

**Introduction**

English as the most-spoken language has a set of vocabularies that are not only drawn from English itself. There are a number of words that have been borrowed into English. Language contact among speakers from various cultural backgrounds enables one language to adopt a particular word from other languages, especially to express particular cultural elements (Septianasari, 2023). Nyakyusa is the Bantu language registered as M.31 and it is spoken in the South-Western part of Tanzania, particularly in Mbeya Region and some parts of Njombe (Felberg, 1996; Robinson, 2016; Mwambula & Mtallo, 2019). Similar to other languages, the Nyakyusa also is in contact with the English language whose lexicon is fed by the English loanwords (Lusekelo, 2014). This is because the English language has spread almost all over the world and it enjoys the influential dominance over other languages due to its global coverage since the inception of the universe (Sabao, Nauyoma & Zivenge, 2020). In this, Melitz (2016) opines that there has never been in the past a language spoken more widely in the world than English is today. Sabao *et al*. (2020) emphasize that being one of the most widely used languages of the world, English has become the most dominant donor of words to other languages. The international status of English language as a global lingua franca means it is not confined and regarded as a language of the United States of America or the United Kingdom, but the language of the entire world. This has been possible because English is the chief language of science and technology, international business, publications, social networks and learning (Melitz, 2016). Therefore, it is difficult for languages from all over the world, Nyakyusa in particular, to abstain from coming into contact with English, in one way or another.

The language contact between English and Nyakyusa is traced from the time of European colonisation of African territories in the 19th century and they became serious from the early 1920s after the First World War of 1914-1918 when British became the new colonial master of Tanganyika, after Germany, as mandated by the League of Nations (Charsley, 1996; Mwakikagile, 2000; Ndembwike, 2006; Lawrence, 2009; Lusekelo, 2018). It was during this period of British rule in Tanganyika (1920s to 1960s) which triggered the contact between the English and Nyakyusa speakers leading to the contact of their languages, English and Nyakyusa (Brock-Utne & Holmarsdottir, 2004; Lusekelo, 2014). It resulted from the British colonisers who made English an official language in the African territories in which some of the African communities like the Nyakyusa fused some of the English words into their native languages (Lusekelo, 2014). The integrated vocabularies were in particular those referring to new items which were not found in Africa prior to colonisation (Brock-Utne & Holmarsdottir, 2004; Lusekelo, 2014). According to Lusekelo (2014), English is the major donor language for the Nyakyusa language, accounting for 95% of the loanwords into it.

The interlink between morphology and phonology distinguishes a level of analysis that involves lexical and grammatical information incorporated with phonological information. The theory of lexical phonology is concerned with the relationship between morphological structuring and the phonological operations which affect vowels or consonants or stress patterns as far as words are concerned to yield the final phonological representations (Zsiga, 2024).

Literature shows that loanwords undergo an adaptation process to fit into the morphophonotactics of the borrowing language (Hock & Joseph, 2009; Nyaguthii & Ong’onda, 2018). This is because every language is unique as it has specific morpho-phonotactic constraints that govern the formation of its words (Crystal, 1997; Abdul, 2004; Khan, 2016; Nyaguthii & Ong’onda, 2018). In this regard, the English loanwords in Nyakyusa are morphophonologically restructured to eliminate the English morphophonotactics and make them agreeable into the morphophonotactics of the Nyakyusa language (Lusekelo, 2021). That being the case, how English loanwords are morphophonologically nativised into the Nyakyusa language? Indeed, little was known about the way English loanwords are incorporated into Nyakyusa language. In order to conduct research, two research questions have been formulated: i) What are the English loanwords currently used in Nyakyusa? and ii) What are the specific morphophonological processes involved in adapting these loanwords to fit the phonetic and morphological structure of Nyakyusa?. Therefore, this study was conducted to investigate the morphophonological nativisation of English loanwords into Nyakyusa language. To achieve the study’s goal, two specific objectives were established: (i) to identify the English loanwords currently in use in Nyakyusa; and (ii) to examine the specific morphophonological processes involved in adapting these loanwords to fit the phonetic and morphological structure of Nyakyusa.

**Theoretical Framework**

This study was informed by the Lexical Phonology and Morphology (LPM) theory developed by Paul Kiparsky in 1982. The LPM theory explains the word formation processes in regard to the morphophonemic processes, the interaction between morphology and phonology (Genon-Sieras, 2020). According to the LPM theory, the morphological and phonological rules are interwoven (intertwined) during the process of word formation. The theory also suggests that the morphological rules and the phonological rules complement each other cyclically, meaning that the words are formed by adhering to the morphological rules that correspond to the phonological rules. Morphologically, during word formation, derivational and inflectional processes are organised in a series of levels, each level complements a set of phonological rules (Genon-Sieras, 2020). Also, the theory presents that the lexicon that abides derivational and inflectional processes is arranged in several levels that are called strata (Kiparsky, 1982; Genon-Sieras, 2020). According to Kiparsky (1982), each level is associated with a set of phonological rules for which it defines the domain of application. The theory further denotes that every language has its morphophonemic rules that govern its grammar for the formation of a well-ordered lexicon for the particular language (Kiparsky, 1982). This implies that the acceptable ordering of morphemes and phonemes in English may be unacceptable in Nyakyusa, necessitating the restructuring of English loanwords to comply with the Nyakyusa morphophonotactic constraints.

The LPM theory was relevant in this study because it provides a comprehensive framework for analysing the morphophonological adaptation of English loanwords into Nyakyusa. This relevance arises from the theory’s ability to explain the interaction and organisation of phonological and morphological processes within the grammar of a language (Genon-Sieras, 2020). Therefore, the LPM theory was used to examine the morphophonological processes involved in adapting English loanwords into Nyakyusa.

**Empirical Literature Review**

Loanwords are lexical items from one language integrated into another language in order to fulfil the communicative purpose of a particular borrowing language (Crystal, 1997). This implies that the growth of loanwords is one of the results of language contacts. This is because lexical borrowing is the immediate effect and manifestation of language contact to accommodate the newly introduced concepts (Nyaguthii & Ong’onda, 2018; Lusekelo, 2014; 2018). In this regard, the Nyakyusa language adopts English words to expand its vocabulary. According to Lusekelo (2018), the language contacts between English and the Tanzanian Bantu languages, Nyakyusa in particular, which result in lexical borrowing are triggered by colonialism, trade and the Tanzanian education system.

Native speakers of the Nyakyusa language find it difficult to pronounce English loanwords with the speech sounds which are not found in their native language. This is because the English phonological system is dissimilar to that of Nyakyusa. In this, Hock and Joseph (2009) attest that language divergence in phonology is the major challenge to deal with the loanwords. The phonological differences between English and Nyakyusa languages make the native Nyakyusa speakers articulate the English loanwords with the Nyakyusa accent, leading to modification of the English loanwords into the context of the Nyakyusa language. This is in compliance with Hock (1991) who argues that loanwords must adopt phonological changes for them to suit the phonological systems of the borrowing languages. In this case, the English loanwords in Nyakyusa are rephonologised to conform to the phonotactics of the Nyakyusa language. With regard to the LPM theory, the rephonologisation of English loanwords affects the whole internal structure of such words leading to their remorphologisation. This is because every language has a unique morphophonotactics that govern the formation of its words (Sabao *et al*., 2020).

The modification of loanwords by integrating them more firmly into the linguistic structure of the borrowing language is what is referred to as nativisation (Hock & Joseph, 2009). Therefore, nativisation is a process in which a borrowed linguistic item is adjusted to conform to the pattern of the recipient language (Mwaliwa, 2014; Tunde-Awe, 2014). With respect to this study, nativisation is a linguistic process of befitting English loanwords into the linguistic grammar of the Nyakyusa language. Nativisation of English loanwords into Nyakyusa is due to phonological differences between the two languages, English and Nyakyusa. The difference is exhibited on the number of phonological segments as the English language has more phonemes than the Nyakyusa language. While the English language has twenty-five vowels which are monophthongs, diphthongs and triphthongs and twenty-four consonants (Khan, 2016; Zivenge, 2009), the Nyakyusa language has seven vowels which are monophthongs and sixteen consonants (Felberg, 1996; Persohn, 2020). Moreover, the two languages differ based on their syllable types. English allows both open and closed syllable types (Crystal, 1997) whereas the syllable structure of the Nyakyusa language conforms to the CV syllable type (Persohn, 2020). The Nyakyusa language obeys the open syllable type; denoting that the Nyakyusa syllables end in a nucleus, a vowel.

The borrowing languages use various linguistic strategies to integrate the loanwords into their acceptable linguistic constraints. Scholars point out strategies such as vowel insertion, glide insertion, vowel substitution, consonant substitution, segment retention, re-syllabification, truncation, affixation, and assimilation to be used in nativisation of loanwords into the borrowing languages. Steinbergs (1985), for instance, stated that vowel insertion, segmental substitution, and cluster simplification are the strategies used to incorporate loanwords from Afrikaans, English, and German languages into Kwanyama, a Bantu language spoken in Angola and Namibia. Mathangwane (1996) reported that vowel epenthesis and segmental substitution are the main morphophonological processes used to integrate the English loanwords into Kalanga, a Bantu language spoken in Botswana and Zimbabwe. Chimhundu (2002) revealed that substitution and epenthesis are used to incorporate English loanwords into Shona, a Bantu language which is a mother-tongue of the majority Zimbabweans.

Similarly, Owino (2003) found that vowel insertion and vowel deletion are the main phonological processes used to simplify the English and Swahili consonant clusters and non-recognised syllable structures in Dholuo, a Bantu language spoken by Luo people in Kenya. Ndambuki (2013) reported that insertion, deletion and feature change are the linguistic mechanisms used in the incorporation of English loanwords into the phonological system of the Kamba, a Bantu language spoken by the Kamba people in Kenya. Khan (2016) reported that the loanwords from English and Afrikaans languages are integrated into the Zulu, a Batu language spoken in the KwaZulu-Natal region of South Africa, through segment substitution, vowel epenthesis, glide epenthesis, and segment deletion.

The reviewed literature (e.g., Hock, 1991: Hock & Joseph, 2009) shows that loanwords are nativised to become compliant with the linguistic constraints of the borrowing languages. Moreover, the reviewed literature (e.g., Chimhundu, 2002; Owino, 2003; Ndambuki, 2013; Khan 2016) sheds light on the linguistic processes used in nativisation of loanwords. The processes include segment substitution, segment epenthesis, segment deletion, and cluster simplification. Certainly, little was known about how English loanwords whose number is immerse in Nyakyusa language are integrated into it. Thus, this study was conducted to investigate the morphophonological processes involved in nativisation of English loanwords into Nyakyusa.

**Methodology**

This is a descriptive study that was framed into an interpretive research paradigm and a qualitative research approach. The interpretive research paradigm was used in order to understand deeply the way English loanwords are adapted into Nyakyusa by focusing on the linguistic, cultural and social factors that govern their adaptations. Crotty (1998) considers interpretivism as one of the key epistemological frameworks that guide qualitative research. In investigating how English loanwords are adapted into Nyakyusa, the qualitative approach was important to understand the nuanced morphophonological changes, such as sound substitutions, syllable structure modifications and affixation, and the way they are influenced by the Nyakyusa morphophonological rules. This is because the qualitative approach explores phenomena in depth (Cresswell, 2013). Descriptive design was ideal for systematically observing, documenting and categorizing the phonological and morphological changes that occur during the adaptation process. According to Ary, Jacobs, Razavieh and Sorensen (1972), description is the best way to systematically document and analyse behaviours, phenomena and conditions under study.

This study was conducted at Lumbila ward of the Ludewa District in Njombe Region and Matema ward of the Kyela District in Mbeya Region, Tanzania where Nyakyusa language is predominant. Regarding the nature of this study, 14 native Nyakyusa speakers were recruited purposively to participate in the study. Purposive sampling is the selection of participants based on specific criteria that are relevant to research questions (Bryman, 2012). The primary criterion for selecting participants in this study was the ability to recognize English words. Therefore, the native Nyakyusa speakers with educational background ranging from secondary to tertiary level were crucial for participation in this study. The basis for establishing this criterion was the researchers’ assumption that individuals who had attained secondary education would have the ability to recognize English words, given that English is the compulsory subject of secondary education, Form I-IV, and is the medium of instruction from lower secondary education to higher education in Tanzania (WyEST, 2023). With the assistance of village chairpersons in the respective wards, 7 individuals from each ward meeting the desired criteria were selected to take part in this study.

The data were collected using participant observations, interviews and documentary review. The corresponding author of this study, being a native Nyakyusa speaker, participated in conversations with other native Nyakyusa speakers in Nyakyusa language. During conversations, the researcher was jotting down the words that seemed to be similar to the English words. Face-to-face interviews were conducted with the native Nyakyusa speakers who took part in this study in order to find out the words of English origin in Nyakyusa. In addition, the Felberg (1996) Nyakyusa-English-Swahili and English-Nyakyusa Dictionary was reviewed to identify the Nyakyusa words borrowed from English.

The collected data were analysed using thematic analysis in order to explore patterns and themes within them. The data analysis process involved reviewing the collected data to analyse loanwords; identifying key morphophonological changes such as vowel adaptations, consonant substitution, vowel substitution and syllable structure changes; defining and naming themes; interpreting themes; and presenting themes under the guiding principles of the LPM theory. Afterwards, the analysed data were presented using descriptions, explanations and tables.

This study observed research ethics by ensuring voluntary participation, informed consent, confidentiality, anonymity, and protecting participants from physical-emotional harm.

**Data Presentation and Analysis**

This study investigated the morphophonological nativisation of English loanwords into Nyakyusa language. Specifically, the study sought to: (i) identify the English loanwords currently in use in Nyakyusa; and (ii) examine the specific morphophonological processes involved in adapting these loanwords to fit the phonetic and morphological structure of Nyakyusa.

1. **The English loanwords in the Nyakyusa language**

The collected data through observations, interviews and documentary review showed that there is an abundance of English loanwords in the Nyakyusa language. According to the data, most of the English loanwords in Nyakyusa are common nouns as presented in the following table 1.

**Table 1 English loanwords which are common nouns in Nyakyusa**

|  |  |
| --- | --- |
| ***English Loanwords in Nyakyusa*** | ***English words*** |
| *Iantena* | *Antena* |
| *Ibegi* | *Bag* |
| *Inoti* | *Banknote* |
| *Ibheseni* | *Basin* |
| *Ibhetili* | *Battery* |
| *Ibia* | *Beer* |
| *Ibisikuti* | *Biscuit* |
| *Embulangete* | *Blanket* |
| *Bululu* | *Blue* |
| *Ibhoti* | *Boat* |
| *Ibomu* | *Bomb*  |
| *Ibhokosi* | *Box* |
| *Ibhatani* | *Button* |
| *Ikamela* | *Camera* |
| *Ikadi* | *Card* |
| *Ikapeti* | *Carpet* |
| *Ekatoni* | *Carton* |
| *Ikaseti* | *Cassette* |
| *Isementi* | *Cement* |
| *Kyameni* | *Chairman* |
| *Ikyoko* | *Chalk* |
| *Ichenji* | *Change* |
| *Ichaja* | *Charger* |
| *Ukuchaji* | *Charging* |
| *Ikwaya* | *Choir* |
| *Unkilisiti* | *Christian* |
| *Ubhukilisiti* | *Christianity* |
| *Ikyaliki* | *Church* |
| *Isenema* | *Cinema* |
| *Ikiliniki* | *Clinic*  |
| *Ikilabu* | *Club* |
| *Ikoti* | *Coat* |
| *Ikompyuta* | *Computer* |
| *Ibuku* | *Counter book* |
| *Ikeleti* | *Crate* |
| *Idiseli* | *Diesel* |
| *Idishi* | *Dish* |
| *Undelefwa* | *Driver* |
| *Enjini* | *Engine* |
| *Ielia* | *Eria* |
| *Ifulampeni* | *Flying pan* |
| *Ifelemu* | *Frame* |
| *Ifiliji* | *Fridge* |
| *Ighaseti* | *Gazette* |
| *Ijeneleta* | *Generator* |
| *Ighalasi* | *Glass* |
| *Ighilisalini* | *Glycerin* |
| *Igoli* | *Goal* |
| *Ugolikipa* | *Goalkeeper* |
| *Ighauni* | *Gown* |
| *Ijesi* | *Jersey* |
| *Ijagi* | *Jug* |
| *Ejuisi* | *Juice* |
| *Ilita* | *Litre* |
| *Ikina* | *Machine* |
| *Amakina* | *Machines* |
| *Imemoli kadi* | *Memory card* |
| *Eneti* | *Mosquito net* |
| *Unziki* | *Music* |
| *Unnesi* | *Nurse* |
| *Inati* | *Nut* |
| *Iofisi* | *Office* |
| *Uafisa* | *Officer* |
| *Pamande* | *On Monday* |
| *Epaketi* | *Packet* |
| *Epasipoti* | *Passport* |
| *Ipetuloli* | *Petrol* |
| *Ipulasitiki* | *Plastic* |
| *Umpolisi* | *Policeman* |
| *Iledio* | *Radio* |
| *Ileli* | *Railway* |
| *Ilisiti* | *Receipt* |
| *Ilingi* | *Ring* |
| *Elula* | *Ruler* |
| *Esakalamenti* | *Sacrament* |
| *Isendo* | *Sandal* |
| *Isendosi* | *Sandals* |
| *Isukulu* | *School* |
| *Isisala* | *Scissors* |
| *Isekondali* | *Secondary school* |
| *Esiati* | *Shirt* |
| *Isiketi* | *Skirt* |
| *Isopo* | *Soap* |
| *Isokesi* | *Socks* |
| *Isoda* | *Soda* |
| *Isola* | *Solar* |
| *Isoli* | *Sole* |
| *Isipana* | *Spanner* |
| *Isipika* | *Speaker* |
| *Isupuni* | *Spoon* |
| *Isituli* | *Stool* |
| *Isabufa* | *Subwoofer*  |
| *Isuti* | *Suit* |
| *Isweta* | *Sweater* |
| *Iswichi* | *Switch* |
| *Itempeli* | *Temple* |
| *Tesitamenti* | *Testament* |
| *Itai* | *Tie* |
| *Etoki* | *Torch* |
| *Itelekita* | *Tractor* |
| *Iteleni* | *Train* |
| *Italabhusi* | *Trousers* |
| *Itwisiti* | *Twist* |
| *Ifideo* | *Video* |
| *Evocha* | *Voucher* |
| *Iwigi* | *Wig* |
| *Ubhwajha* | *Wire* |
| *Isipu* | *Zipper* |

**Source:** Research data (2024)

1. **The morphophonological processes involved in integrating English loanwords into Nyakyusa language**

With regard to the data of this study that were collected through observations, interviews and documentary review, the Nyakyusa language integrates the English loanwords that violate its morpho-phonotactics through various morphophonological processes such as segmental substitution, vowel epenthesis, glide epenthesis, segmental deletion and segmental retention. Each of the processes is presented in detail hereafter:

1. ***Segmental substitution***

Segmental substitution is a linguistic process of replacing a segment by another phonetically close segment (Hock, 1991). The data showed that the English segments (phonemes) that are not recognisable in the Nyakyusa language are replaced by the Nyakyusa phonemes that are phonetically related. According to Khan (2016), there are two types of substitutions, namely vowel and consonant substitution. With regard to the collected data, the Nyakyusa language applies both vowel and consonant substitution. It was found that both English vowels and consonants that are not found in the Nyakyusa language are replaced by the phonetically related Nyakyusa phonemes. Table 2 below presents English vowels with Nyakyusa vowels applicable for their substitution.

**Table 2 English vowels with their substitution in the Nyakyusa language**

|  |  |
| --- | --- |
| **English Vowel** | **Nyakyusa Vowel** |
| */ɒ/* | */o/ or /a/* |
| */æ/* | */e/ or /a/* |
| */e/* | */o/ or /a/* |
| */ə/* | */a/ or /i/ or /o/ or /u/* |
| */ɜː/* | */a/ or /e/* |
| */ɪ/* | */e/ or /i/ or /u/* |
| */ɔː/* | */a/ or /o/* |
| */ʌ/* | */a/* |
| */eɪ/* | */e/* |

The data in table 2 above show that English vowel /ɒ/ is substituted by /o/ or /a/; /æ/ is substituted by /e/ or /a/; /e/ is substituted by /o/ or /a/; /ə/ is substituted by /a/, /i/, /o/ or /u/; /ɜː/ is substituted by /a/ or /e/; /ɪ/ is substituted by /e/, /i/ or /u/; /ɔː/ is substituted by /a/ or /o/; /ʌ/ is substituted by /a/; and /eɪ/ is substituted by /e/ in Nyakyusa language. Table 3 below presents some of the English loanwords integrated into Nyakyusa language using vowel substitution.

**Table 3 English loanwords integrated in Nyakyusa using vowel substitution**

|  |  |  |
| --- | --- | --- |
| **English form** | **Nyakyusa form** | **Meaning** |
| *Officer* ***/ɒ****fɪsə****/*** | *Uafisa /u****a****fisa/* | *Officer* |
| *Socks* ***/****s****ɒ****ks****/*** | *Esokesi /es****o****kesi/* | *Socks* |
| *Bag* ***/****b****æ****g****/*** | *Ibegi /ib****e****gi/* | *Bag* |
| *Computer* ***/****k****ə****mpju:t****ə/*** | *Ekompyuta /ek****o****mpjut****a****/* | *Computer* |
| *Shirt /ʃ****ɜ****:t/* | *Isyati /isy****a****ti/* | *Shirt* |
| *Biscuit* ***/****b****ɪ****sk****ɪ****t****/*** | *Ebhisikuti /eβ****i****sik****u****ti/* | *Biscuit* |
| *Torch* ***/****t****ɔː****ʧ****/*** | *Etoki /et****o****ki/* | *Torch* |
| *Button* ***/****b****ʌ****tən****/*** | *Ibhatani /iβ****a****tani****/*** | *Button* |
| *Radio /r****eɪ****dio/* | *Iledio /ɪl****e****dio/* | *Radio* |

Moreover, the data showed that the English consonants that are not recognisable in Nyakyusa language are replaced by the phonetically related Nyakyusa consonants as presented in table 4 below.

**Table 4 English consonants with their substitution in the Nyakyusa language**

|  |  |
| --- | --- |
| **English Consonant** | **Nyakyusa Consonant** |
| */b/* | */β/* |
| */v/* | */f/* |
| */θ/, /ð/ and /z/* | */s/* |
| */r/* | */l/* |
| */tʃ/* | */k/* |
| */g/* | */γ/* |

The data in table 4 above indicate that English consonant /b/ is substituted by /β/; /v/ is substituted by /f/; /r/ is substituted by /l/; /tʃ/ is substituted by /k/; /θ/, /ð/ and /z/ are substituted by /s/; and /g/ is substituted by /γ/ in Nyakyusa language. Table 5 below presents some of the English loanwords integrated into Nyakyusa language using consonantal substitution.

**Table 5 English loanwords integrated in Nyakyusa using consonantal substitution**

|  |  |  |
| --- | --- | --- |
| **English form** | **Nyakyusa form** | **Meaning** |
| ***B****asin /****b****eɪsən/* | *I****bh****eseni /i****β****eseni/* | *Basin* |
| ***R****adio* ***/r****eɪdiəʊ****/*** | *I****l****edio /i****l****edio/* | *Radio* |
| ***V****ideo* ***/v****ɪdiəʊ****/*** | *E****f****ideo /i****f****ideo/* | *Video* |
| ***Ch****ur****ch /tʃɜːtʃ/*** | *I****k****yaliki /i****k****jaliki/* | *Church* |
| ***Sh****irt /****ʃ****ɜ:t/* | *I****s****yati /i****s****jati/* | *Shirt* |
| ***Th****ermos /****θ****ɜːmɒs/* | *I****s****emosi /i****s****emosi/* | *Thermos* |
| ***G****lass /****g****lɑ:s/* | *I****gh****alasi /i****γ****alasi/* | *Glass*  |
| ***Z****ipper /****z****ɪpə/* | *I****s****ipu /i****s****ipu/* | *Zipper* |

1. ***Vowel epenthesis***

Vowel epenthesis is the insertion of a vowel into a word to satisfy the phonological constraints of a language (Hock & Joseph, 2009). The data indicated that Nyakyusa language integrates English loanwords to its morpho-phonotactics by inserting vowels to such borrowed words. All the English loanwords in the Nyakyusa language identified by this study were found to have been inserted vowels. Based on the data, it was noted that vowel epenthesis serves three functions in Nyakyusa language: (i) marking pre-prefixes, (ii) opening closed syllables and (iii) breaking up consonantal clusters as presented in the details below.

1. ***Vowel epenthesis to mark pre-prefixes***

The data indicated that Nyakyusa language integrates English loanwords by inserting vowels at the beginning of such words. It was revealed that all the identified English loanwords, which are common nouns, are inserted vowels at the beginning in order to conform to the Nyakyusa nominal constraints. This is because a noun in Nyakyusa language consists of three components, which are the pre-prefix, the class prefix and the stem (Robinson, 2014). The data in Table 6 below show the English loanwords integrated into the Nyakyusa language through vowel epenthesis at the beginning to mark pre-prefixes.

**Table 6 vowel epenthesis at the beginning of English loanwords to mark pre-prefix**

|  |  |  |
| --- | --- | --- |
| **English word** | **Nyakyusa word** | **Meaning** |
| *Battery* | ***I-****bhetili* | *Battery* |
| *Beer* | ***E-****bia* | *Beer* |
| *Biscuit* | ***E-****bhisikuti* | *Biscuit* |
| *Boat* | ***I-****bhoti* | *Boat* |
| *Bomb*  | ***I-****bomu* | *Bomb*  |
| *Box* | ***I-****bhokosi* | *Box* |
| *Camera* | ***E-****kamela* | *Camera* |
| *Card* | ***E****-kadi* | *Card* |
| *Cassette* | ***I-****kaseti* | *Cassette* |

1. ***Vowel epenthesis to open closed syllables***

The data showed that English loanwords which end in consonants are integrated in the Nyakyusa language by inserting vowels at the end of such words. This is because Nyakyusa language does not allow words with closed syllables (Persohn, 2020). Therefore, the English loanwords with closed syllables are restructured into the open syllable type which is recognisable in Nyakyusa language through vowel epenthesis at the end of particular loanwords as shown in Table 7 below.

**Table 7 vowel epenthesis at the end of English loanwords to open closed syllables**

|  |  |  |
| --- | --- | --- |
| **English word** | **Nyakyusa word** | **Meaning** |
| *Biscuit* | *Ebhisikut****i*** | *Biscuit* |
| *Boat* | *Ibhot****i*** | *Boat* |
| *Bomb*  | *Ibom****u*** | *Bomb*  |
| *Box* | *Ibhokos****i*** | *Box* |
| *Card* | *Ekad****i*** | *Card* |
| *Jug* | *Ijag****i*** | *Jug* |

1. ***Vowel epenthesis to break up consonantal clusters***

The data revealed that Nyakyusa language restructures the English loanwords made up of consonantal clusters which violate the Nyakyusa morpho-phonotactics through insertion of vowels between such clustered consonants in a word. The insertion of vowels between the clustered consonants results in re-syllabification of English loanwords in Nyakyusa language. It was noted that English loanwords with syllable structures violating the Nyakyusa syllable structures are re-syllabified. This is because a consonant-vowel (CV) sequence is the most basic syllable type of Nyakyusa language (Persohn, 2020). In this regard, the English loanwords in Nyakyusa language with clustered consonants are re-syllabified into a Nyakyusa CV-syllable type through vowel epenthesis to break up consonantal clusters as exemplified in Table 8 below.

**Table 8 vowel epenthesis to break up consonantal clusters**

|  |  |  |
| --- | --- | --- |
| **English word** | **Nyakyusa word** | **Meaning** |
| *Bi****sc****uit* | *Ebhis****i****kuti* | *Biscuit* |
| ***St****ool*  | *Is****i****tuli* | *Stool* |
| ***Cr****ate*  | *Ik****e****leti* | *Crate* |
| ***Sp****oon* | *Is****u****puni* | *Spoon* |
| ***Cl****inic* | *Ik****i****liniki* | *Clinic* |
| ***Tr***ain  | *It****e****leni* | *Train*  |

1. ***Glide epenthesis***

Glide epenthesis is the insertion of approximant into a word to comply with the phonological constraints of a language (Khan, 2016). The data showed that some English loanwords are integrated into the Nyakyusa language by inserting approximants within particular words. It was noted that some of the English loanwords which begin with voiceless palatal-alveolar affricative /tʃ/ are incorporated into Nyakyusa language through glide epenthesis. It was revealed that the voiced palatal approximant /j/ is inserted between the voiceless velar plosive /k/, the substitute of voiceless palatal-alveolar affricative /tʃ/, and the proceeding vowel as exemplified by the data in table 9 below.

**Table 9 /j/ epenthesis within English loanwords**

|  |  |  |
| --- | --- | --- |
| **English word** | **Nyakyusa word** | **Meaning** |
| *Chairman /tʃɜ:mən/* | *K****y****ameni /k****j****ameni/* | *Chairman* |
| *Chalk /tʃɔːk/* | *Ik****y****oko /ik****j****oko/* | *Chalk* |
| *Church /tʃɜːtʃ/* | *Ik****y****aliki /ik****j****aliki/* | *Church*  |

Not only is the voiced palatal approximant /j/ but also the voiced bilabial approximant /w/ inserted within the English loanwords to make them compatible with the Nyakyusa morphophonotactics. The data indicated that some of the English loanwords which end with voiced labial-dental fricative /v/ are integrated into Nyakyusa language through insertion of voiced bilabial approximant /w/ between the voiceless labial-dental fricative /f/, the substitute of voiced labial-dental fricative /v/, and the proceeding vowel as shown in the following table 10.

**Table 10 /w/ epenthesis within English loanwords**

|  |  |  |
| --- | --- | --- |
| **English word** | **Nyakyusa word** | **Meaning** |
| *Driver /dr*aɪv*ə*/ | *Undelef****w****a /undelef****w****a/* | *Driver* |

1. ***Segmental deletion***

Segmental deletion is a process in which a segment is omitted from a word (Khan, 2016). The data revealed that Nyakyusa language integrates some of the English loanwords by omitting some segments in such borrowed words. It was evident that some of the English loanwords are integrated into Nyakyusa language by omitting some segments in such particular words as presented in table 11 below.

**Table 11 segmental deletion within English loanwords in Nyakyusa**

|  |  |  |
| --- | --- | --- |
| **English word** | **Nyakyusa word** | **Meaning** |
| *Sub****woo****fer /sʌb****wʊ****fə/* | *Isabufa /isabufa/* | *Subwoofer* |

1. ***Segmental retention***

Segmental retention is the preservation of specific phonetic segments within a language (Hock & Joseph, 2009). The data indicated that some of the English loanwords in the Nyakyusa language have retained original segments from the English language that are not recognisable in Nyakyusa. For example, it was evident that the voiced alveolar plosive /d/ has been preserved in some of the English loanwords in Nyakyusa, despite the changes of other segments in such borrowed words as shown in the following table 12.

**Table 12 retention of /d/ in English loanwords in Nyakyusa**

|  |  |  |
| --- | --- | --- |
| **English word** | **Nyakyusa word** | **Meaning** |
| ***D****ish* | *I****d****ishi* | *Dish* |
| *Vi****d****eo* | *Efi****d****eo* | *Video* |
| *Ra****d****io* | *Ile****d****io* | *Radio* |
| *San****d****als* | *Isen****d****osi* | *Sandals* |

Not only is the voiced alveolar plosive /d/ but also the voiceless palatal-alveolar affricative /tʃ/ retained during the integration of the English loanwords into the Nyakyusa language. The data showed that the voiceless palatal-alveolar affricative /tʃ/ is retained in some of the English loanwords in Nyakyusa language as displayed in table 13 hereafter.

**Table 13 retention of /tʃ/ in English loanwords in Nyakyusa**

|  |  |  |
| --- | --- | --- |
| **English word** | **Nyakyusa word** | **Meaning** |
| Swit***ch*** | *Eswi****ch****i* | *Switch* |
| ***Cha****rger* | *E****cha****ja* | *Charger* |
| ***Ch****ange* | *E****ch****enji* | *Change* |

Apart from retaining the voiced alveolar plosive /d/ and the voiceless palatal-alveolar affricative /tʃ/, it was revealed that Nyakyusa language integrates some of the English loanwords into its morphophonotactic constraints through retention of the voiced velar plosive /g/. It was found from the data that the voiced velar plosive /g/ is retained in some of the English loanwords in Nyakyusa language as presented in table 14 below.

**Table 14 retention of /g/ in English loanwords in Nyakyusa**

|  |  |  |
| --- | --- | --- |
| **English word** | **Nyakyusa word** | **Meaning** |
| *Ba****g*** | *Ebe****g****i* | *Bag* |
| *Ju****g*** | *Ija****g****i* | *Jug* |
| ***G****oal* | *I****g****oli* | *Goal* |
| *Wi****g*** | *Iwi****g****i* | *Wig* |

The data presented in table 12, 13 and 14 above show that Nyakyusa language has retained some of the English phonemes, namely: the voiced alveolar plosive /d/, the voiceless palatal-alveolar affricative /tʃ/, and the voiced velar plosive /g/, which are not recognisable in the Nyakyusa primarily phonological inventory.

**Findings and Discussion**

The aforementioned data indicate that there are abundant English loanwords in the Nyakyusa language whereby most of them are common nouns. These findings correspond to Lusekelo (2014) who argued that English is the major donor language for the Nyakyusa language, counting for 95 percentage of its loanwords.

Also, the study found that Nyakyusa language integrates English loanwords that violate its morpho-phonotactics through various morphophonological processes, which are segmental substitution, vowel epenthesis, glide epenthesis, segmental deletion and segmental retention. The processes found by this study to be applied by the Nyakyusa language in incorporating English loanwords into its morphophonotactics are similar to the processes reported by various scholars to be used in other Bantu languages to integrate loanwords from Indo-European languages, English in particular. Steinbergs (1985), for instance, reported that vowel insertion, segmental substitution and cluster simplification are used to incorporate loanwords from Afrikaans, English, and German languages into Kwanyama. Mathangwane (1996) found that vowel epenthesis and segmental substitution are the main morphophonological processes used to integrate the English loanwords into Kalanga. Chimhundu (2002) reported that the English loanwords are incorporated into the Shona language through substitution and epenthesis. Owino (2003) revealed that vowel insertion and vowel deletion are the main phonological processes used to simplify the English and Swahili consonant clusters and non-recognised syllable structures in Dholuo. Ndambuki (2013) showed that insertion, deletion and feature change are used to incorporate English loanwords into the phonological system of the Kamba language. Similarly, Khan (2016) informed that the loanwords from English and Afrikaans languages are integrated into the Zulu language through segmental substitution, vowel epenthesis, glide epenthesis, and segmental deletion.

**Conclusion and Recommendation**

Regarding the findings of this study, it is concluded that there are many English loanwords in the Nyakyusa language, whereby most of them are common nouns. The English loanwords in Nyakyusa language are nativised to make them comply with the Nyakyusa morphophonotactics. Various morphophonological processes are used in integrating the English loanwords into the Nyakyusa language. The processes used are segmental substitution, vowel epenthesis, glide epenthesis, segmental deletion and segmental retention. The researchers recommend conducting comparative studies on the nativisation processes in other Bantu languages in order to contextualize the findings and highlight unique or shared features within the language family.

**Contribution of the Study**

This study contributes to understating of the morphophonological processes involved in integrating English loanwords into Nyakyusa. This knowledge may be useful to people interested in language contact in developing their understanding on language nativisation. Similarly, the study adds efforts to make Nyakyusa language more documented and preserved for future usage. As one of the minority languages, Nyakyusa may die and disappear if not documented, as claimed by Rodgers (1995).

**Limitations of the Study**

Given the fact that the data were collected from a subset of the Nyakyusa speech community, the study might have analysed a relatively small number of English loanwords, which could restrict the generalizability of the findings across all English loanwords in Nyakyusa.

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