

Phonological Nativisation of Swahili Loanwords in the Nyakyusa Language

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Abstract

This paper examines the phonological nativisation processes of Swahili loanwords in the Nyakyusa language. The study was conducted in Rungwe district, in Mbeya region. The data were collected through the Nyakyusa written texts, elicitation guides, and observation of native speakers' conversations. The study adopted the theory of Assimilation propagated by Clements (1985). The theory advocates that when two speech communities are in contact for a considerable amount of time, they end up inter-influencing each other where the borrowed lexicons from the recipient language are adopted or undergo some modifications. It was evident that Nyakyusa, the beneficiary language, uses epenthesis and substitution as fixed procedures for lexicons not well shaped to influence them to fit in with the acquiring rules. More importantly, the findings revealed that with regard to borrowing, the Nyakyusa language has changed its phonological structure by introducing new consonants and allowing consonant clusters. The study recommends further studies on phonological nativisation processes in other districts where Nyakyusa is spoken as a native language, such as Kyela district and in other Bantu languages.

1.0 Introduction

Language change is unavoidable because every language is, or had been in contact with other languages for a considerable amount of time. It is clear that when two or more speech communities are in contact, they influence one another. Normally, the influence is asymmetrical in the sense that in a contact situation, one speech community becomes more powerful and dominant both culturally and linguistically. In such a situation, a less powerful community tends to borrow some cultural and language aspects of the dominant language. In this line, Myers-Scotton (2006) reveals that the exchange between languages is never equivalent; this is due to the fact that a gathering of individuals with a less open door to financial status or political control is probably going to get the most. Likewise,

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Myers-Scotton (2002) adds that the level of joining relies upon the number of variables, including the phonological distinction between the two languages, yet, additionally, the level of bilingualism of the speakers utilising the acquired structures. However, it is contended that depending on cultural and linguistic situations, borrowing does not necessarily require perfect bilingualism. The language that experiences inadequacies in expressing new experiences borrows to cater for such knowledge and experiences (Chebanne and Phili, 2015). With regard to this argument, it is evident that during contact, the respective languages do borrow from each other although the extent of borrowing differs from one language to another depending on the differences in terms of status.

Several studies have been done in different African languages on language contact and borrowing, particularly Bantu languages by scholars like Swilla (2000) in Ndali; Bernander (2012) in Bena; Mutua (2013) in Kikamba; Mapunda and Rosendal (2015) in Ngoni; Chebanne and Phili (2015) in Kalanga, and Mwakasege (2021) in Nyakyusa and Ndali languages. Those studies reveal that the situation of ethnic community languages has been greatly changed. In the Tanzanian context, the findings of various studies indicate that Kiswahili, which is a national and an official language, has become the donor and dominant language to ethnic community languages (Swilla, 2000; Bernander, 2012; Mapunda and Rosendal, 2015; Mwakasege, 2021). However, Yoneda (2010) doubts that the use of Swahilised Matengo words will increase rapidly and broadly. Nyakyusa is one of the Tanzanian ethnic community languages that have been in close contact with Kiswahili speaking community for many years and thus, some of its vocabulary exhibits to have been originated from Kiswahili (Swilla, 2000; Mwakasege, 2021, Robinson, 2023). The findings of these studies reveal the existence of phonological, morphological, semantic, and syntactic changes in the Nyakyusa language.

1.1 Nyakyusa Language

The Nyakyusa, Bantu language, is spoken in Rungwe, Kyela, Busokelo and Mbozi districts in Tanzania. Nyakyusa language is also spoken in Zambia and Malawi (Mwakasege, 2021). Based on Guthrie's latest version, the Nyakyusa language is coded M31 (Maho, 2009). Most of the Nyakyusa speakers speak Kiswahili (Mwakasege, 2021). The Nyakyusa language is bordered by other Bantu languages such as Safwa (M25), Ndali (M31), Kinga (G65) and Wanji (G66).

1.2 Contact Situation

The Nyakyusa language has been in contact with different languages such as German, Kiswahili and English (Swilla, 2000; Lusekelo, 2014; Mwakasege, 2021). The language is mainly influenced by Kiswahili (Mwakasege, 2021). In Tanzania, Kiswahili is used as a national language. It is taught as a subject from pre-primary to tertiary level and also used as a medium of instruction from pre-primary to primary and some tertiary levels of education. Additionally, borrowing

is linked to the status of Kiswahili which is regarded as spiritually, academically, technologically and culturally prestigious. As a result of prolonged contacts, the Nyakyusa language has undergone some phonological changes (Mwakasege, 2021; Robinson, 2023).

1.3 Phonological Borrowing

Language contact can prompt transfer in every aspect of language structure such as phonology (sound frameworks), morphology (word structure), syntax (sentence structure) and lexical semantics (Swilla, 2000; Myers-Scotton, 2006; Yoneda, 2010). Of all these linguistic changes, sound change is the most easily noticeable. Additionally, sound change is the base of all changes in other aspects of linguistics, such as morphological, syntactic, lexical and semantic changes. As foreign words enter a language, they undergo various modifications in sound structure to conform to the native sound patterns despite the fact that sometimes, it is possible to take certain sounds from other languages without any modification (Yoneda, 2010; Coetsem, 2016).

Borrowed words are essentially nativised through appropriate phonologisation strategies (Yoneda, 2010; Coetsem, 2016). The sounds missing in the borrowing language can be substituted with those available in the donor language. Substitution tends to preserve sounds from deletion and tries to reshape the word closer to the input form, but at the same time, because some sound combinations are not allowed in the recipient language, they undergo certain adaptations (Chebanne and Phili, 2016). In substitution, an item is replaced with the phonetically close phonemes in the recipient language. Syllable clusters undergo simplification by breaking down consonant clusters by epenthesis a vowel between the successive consonants (Chebanne and Phili, 2016).

Literature reveals that phonological description has received little attention across Bantu languages as well as the language under study. In Nyakyusa, many studies based on morphological aspects, particularly tense and aspect, negation, verb forms (see for example, Lusekelo, 2007; Lusekelo, 2013; Robinson, 2015; Robinson, 2021), inflection and derivation distinction (see Robinson, 2016), and verb forms (see Persohn, 2017). However, some of these studies indirectly touch upon certain phonological aspects of the respective languages. For instance, Robinson's (2023) study analyses the grammatical description of the Nyakyusa phonology. Nevertheless, his study has not focused on phonological nativisation of the Swahili loanwords. However, his study indirectly touches phonological nativisation of the Swahili loanwords as he reveals the presence of the sound [y] in the word *Yanga* instead of *Janga*. But he asserts that, the case of foreign consonants in Nyakyusa is very rare.

2.0 Methodology

This study was conducted in Rungwe district in Mbeya region. Rungwe district was chosen because the area is largely populated by the Nyakyusa native

speakers. To accomplish this study, both primary and secondary data were used. The primary data were collected through elicitation guides and observation of native speakers' conversations. The research informants were adults and elderly Nyakyusa native speakers. A total of twenty informants were involved based on the point of saturation. The selection of the informants was done purposively based on being a native speaker who was born, raised and schooled in the Nyakyusa speech community.

Through elicitation guides, the researcher read questions to the informants, and after that, the responses given were filled in by the researcher himself helped by a selected individual, a native speaker who was also born, and raised in the Nyakyusa speech community, and well knowledgeable about his or her ways of life and language. The elicitation guides contained constructions written in Kiswahili about terms referring to various objects and ideas that were expected to have been used in the Nyakyusa society. Primary data were supplemented by secondary data, written texts, namely "Nyakyusa Dictionary" by Felberg (1996) and composed stories such as: "Lugha, Utamaduni na Fasihi Simulizi ya Kinyakyusa" (Language, culture and Nyakyusa Oral Literature) by Mwambusye (2012); "Biblia Umwikemo" (Holy Bible) (2009); *Kalata gwa Finyamana* (An Animal Book) by Postmus (2011); *Akapango ka Kalulu ni Sofu ni Fubu* (The Story of a Hare, Elephant and Hippopotamus) by Mwafongo et al. (2008); *Teti-Teti* (n.d.) were used to detect loanwords and changes in phonology of the Nyakyusa language. Ultimately, a total number of 428 Kiswahili loanwords in Nyakyusa were obtained. The gathered data were then analysed and discussed qualitatively.

3.0 Presentation and Discussion of the Findings

This section presents the Nyakyusa sound inventory. It also presents and discusses phonological adaptation mechanisms and direct phonological borrowing.

3.1 Nyakyusa Sound Inventory

The Nyakyusa language has an arrangement of seven phonemic vowel characteristics as it has also been remade for Proto-Bantu (Schadeberg, 2009). Each of the seven vowel characteristics happens as short and long. In this study, the IPA² symbols are used (/ɑ/, /ɑ:/, /ɛ/, /ɛ:/, /ɪ/, /i/, /ɔ/, /ɔ:/, /u/, /u/). Regarding the consonant inventory, there are sixteen consonants in the Nyakyusa language. These sounds are /b/, /d (nd)/, /f/, /ɣ/, /h/, /j/, /k/, /l/, /m/, /n/, /ŋ/, /p/, /s/, /t/, /w/ and /j/. The glides /w/ and /j/ are only used with a consonant (Felberg, 1996; Mwakasege, 2021). Table 1 demonstrates the phonemic consonants of the Nyakyusa language as they are spelled in this study.

² International Phonetic Alphabet

Table 1: Nyakyusa Consonant Inventory

	Bilabial	Labial Dental	Alveolar	Palatal	Velar	Glottal
Plosive	/p/		/t/	/tʃ/	/k/	
Nasal	/m/		/n/	/ɲ/	/ŋ/	
Fricative		/f/	/s/			/h/
Approximant	/β/			/ɣ/		
Lateral Approximant			/l/			
Glide				/j/	/(w)/	

Source: Felberg (1996), Nurse (1979; 2008), Hyman (1999), Lusekelo (2007), Method (2008); Lusekelo (2013) and Mwakasege (2021)

The sounds /c, v, r, z, w, y, ʃ / are not part of the consonant sounds in the Nyakyusa language (Felberg, 1996; Hyman, 1999; Nurse, 2008; Method, 2008; Mwakasege, 2021; Robinson, 2023).

3.2. Phonological Adaptation Mechanisms

The strategies used to integrate foreign words into the Nyakyusa language are epenthesis, substitution, and direct phonological borrowing. In borrowing, some sounds of the loanwords are nativised to fit the structure of the target language. However, in some circumstances, loanwords are not nativised. The following are the strategies used to incorporate loanwords into the Nyakyusa language:

3.2.1 Epenthesis

Epenthesis involves inserting a sound segment in any position in a word except a word-initial position (Massamba, 2010). It is, generally, motivated by the need to meet the phonotactic imperatives of a beneficiary language (Mwita, 2009). The findings uncover that the borrowed words are constrained to follow the syllable structure of the Nyakyusa language to be part of its system. Because of this reason, it was seen that the Nyakyusa language embeds vowels in consonant bunches to clear any bunch that violates its constraints. This is clear in Table 2 hereunder:

Table 2: Vowel Insertion

S/N	Nyakyusa	Swahili	Gloss
a	/i-siketɪ/	/sketɪ/	skirt
b	/i-telɛnt/	/trenɪ/	train
c	/o-kɪlɪsɪtɪ/	/kɪrɪstɔ/	Christ
d	/i-βolu/	/blu/	blue

Source: Field Data (2022) and Mwakasege (2021)

The vowels [ɪ], [ɛ], and [ʊ] are embedded in the medial position to break the consonant bunches. The process of inserting a vowel between two consonants is called anaptyxis (Massamba, 2010). Similar results are seen in the current study where the vowel [ʊ] breaks up bunches in the environment of a labial consonant and [ɪ] when the environment is non-labial. As delineated by the examples given above, the vowel /ʊ/ or /ɪ/ is an epenthesis that separates these consonant groups, where a particular environment conditions each occurrence. Thus, the syllable pattern in these borrowed words is CV, which is typical of the Nyakyusa phonology.

Just like in other Bantu languages, Nyakyusa comprises open syllables and in view of that, it does not permit consonant bunches of words. However, the findings reveal that some consonant bunches of the loanwords in the Nyakyusa language have been endured. The following data outline this: /alfa/ ‘starting’, /kalfali/ ‘Calvary’, /iplasitiki/ ‘plastic’, /ɔktoba/ ‘October’ whereby the consonant bunches ‘lf’, ‘pl’, ‘ps’, and ‘kt’ are not epenthesised with vowels. In this manner, these findings are in opposition to the Assimilation Theory which expects that the acquiring language adjusts the structure of the loanwords to fit its framework. The consonant clusters are sometimes tolerated when found in the medial position but not the final position of a word. This is because, Nyakyusa, just like other Bantu languages, comprises open-ended syllables. It is plausible to argue that a certain consonant cluster is tolerable if it is pronounceable in the receiving language. Additionally, it seems that certain consonant bunches are tolerated because they help to simplify pronunciation processes of the borrowed lexical items. Therefore, it is possible that consonant clusters are not accepted in Nyakyusa as well as other Bantu languages because they are not pronounceable in recipient languages. It is within this context, then that, consonant clusters are modified to fit the phonotactic pattern of the Nyakyusa language while others are not. This implies that not all consonant clusters in all environments are not accepted in the Nyakyusa language rather the environment and the type of consonant cluster are crucial determinants. Moreover, it is likely that a certain speech community may not allow consonant clusters but with time, because of contact, that speech community may accept some consonant clusters as long as they are located in a certain environment and that they are pronounceable.

3.2.2 Substitution

Substitution is a process that includes replacing consonants and vowels in the source language with others in the target language (Mwita, 2009). Based on the findings, it was noticed that during linguistic borrowing, a sound segment is supplanted by a very different sound so that the words can fit into the Nyakyusa language. From that point of view, we see that consonant substitution (Chebanne and Phili, 2015) has been attested in the data. This is on the grounds that, voiceless

sounds in the Nyakyusa language do not have voiced partners, hence, when the loanwords with voiced sounds are received by the Nyakyusa language, the voiced sounds are substituted by voiceless ones. It ought to be noticed that there are additionally a few sounds that are found in donor languages, for example, Kiswahili but they are not accessible in the Nyakyusa language. It is within this context that, when words with such sounds from donor languages like English or Kiswahili get into the Nyakyusa language, the sounds are substituted so that the words can fit in the Nyakyusa discourse framework. The data in Table 3 delineate the procedure of consonant substitution in Swahili words borrowed into the Nyakyusa language:

Table 3: Consonant Insertion

S/N	Nyakyusa	Swahili	Gloss
a	/i-dalasa/	/darasa/	class
b	/i-balɔa/	/barɔa/	letter
c	/i-sipɔ/	/zipɔ/	zip
d	/selasimi/	/θelaθimi/	thirty
e	/i-ndɛ:yɛ/	/ndɛgɛ/	airplane
f	/i:fiyɔ/	/figɔ/	kidney
g	/i-filatɔ/	/vratɔ/	shoes
h	/i-fikɔmbɛ/	/vikɔmbɛ/	cups
i	/juta/	/Yuda/	Jude
j	/Nikotemu/	/Nikodemu/	Nicodemus

Source: Field Data (2022) and Mwakasege (2021)

The precedents above demonstrate that during borrowing, the consonants /r, z, ʃ, θ/ get substituted by /l, s/. Additionally, the consonants /z, ʃ, θ/ are substituted by the consonant /s/. Moreover, the consonants /v, g/ are replaced with /f, γ/ (see examples in *d*, *e*, and *f* in number 2 above). This substitution is because the Nyakyusa language does not have the consonants /r, z, ʃ, θ/ (Felberg, 1996; Mwakasege, 2021). Additionally, some Swahili voiced consonants become devoiced when integrated into the Nyakyusa language. It is the case of consonants such as [v], which changes into [f]. This is attested in example number 2 in *g* and *h*.

With respect to addressing what determines consonant substitution, it was found that the similarity at the point of articulation is the fundamental determinant of consonant substitution. This observation is in accordance with the Assimilation Theory, which expresses that sounds in proximity to each other can transform each other, and they can do as such when they are ideal beside each other or when they are dissipated all through a word (or even a sentence). For example, /s/ and /z/ are both alveolar fricatives while /t/ and /d/ are stops. Additionally, it was revealed that in order for substitution to occur, there must be differences in the status of the consonants. For instance, a voiced sound could supplant a voiceless sound and the

other way around. Based on the findings, it was seen that the voiced sounds /z/ and /d/ are supplanted by the voiceless sounds /s/ and /t/. Consider the precedents in *c*, *i*, and *j* in the example number two above.

Furthermore, it is seen that vowel substitution is apparent in the data of the current study. The vowel sounds of loanwords entering the Nyakyusa language are substituted with Nyakyusa vowel sounds. Vowel substitution was noted in the Nyakyusa loanwords from Kiswahili. In the Nyakyusa language, vowel substitution takes place at the medial or final position of the word. The data in Table 4 outline this:

Table 4: Vowel Substitution

S/N	Nyakyusa	Swahili	Gloss
a	/u-nkati/	/mkate/	bread
b	/i-sefɔlɪa/i-sefɔlɪla/	/sufurɪa/	sauce pan
c	/i-sɪlɪkɪlɪ/	/serɪkɪlɪ/	government
d	/i-swɛla/	/swala/	antelope

Source: Field Data (2022) and Mwakasege (2021)

The data above demonstrate that there is a propensity of substituting the word-final vowel /ɛ/ with /ɪ/. The underlying vowel /ʊ/ is substituted by /ɛ/. Moreover, it was seen that there are occurrences (however not very many) where the vowel /ʊ/ is kept up, in Kinyakyusa. Further, the precedent in (d) above demonstrates that a vowel /a/ is substituted by /ɛ/. It was additionally realised that in order for vowel substitution to occur, the two respective vowels must share the values for instance, /ɪ/ and /ɛ/ are both mid front vowels. This is in accordance with the Assimilation Theory, which says that sounds near to each other can transform each other, and they can do so when they are ideally alongside each other. On the other hand, the data present a few special cases where two vowels that do not share esteems are substituted. This is exemplified in (b) where the back round vowel /ʊ/, is substituted by the mid-front vowel /ɛ/. Hence, this finding is a contribution to the Assimilation Theory.

Even then, there are many instances where the vowels /ɛ/ and /ʊ/ are kept up. The data in Table 5 demonstrate this fact:

Table 5: Unsubstituted Vowels

S/N	Nyakyusa	Swahili	Gloss
a	/akaswende/	/kaswende/	syphilis
b	/i-ʃɔŋgwa/	/ʃɔŋgwa/	orange
c	/i-βɔʃa/i-βɔkja/	/bɔʃa/	butchery

Source: Field Data (2022) and Mwakasege (2021)

Nevertheless, based on the findings, it is noticed that few sounds of the loanwords which are not part of the Nyakyusa sound inventories have not been substituted

rather they have been kept up. For example, in the Nyakyusa language, the sounds /z/, /ʃ/ and /ð/ in /ɔkɪɲɔzi/ ‘hair stylist’, /ɔbalɔzi/ ‘ten cell leader’, and /idɪlɪʃa/ ‘window’ and /iaðabu/ ‘punishment’ have been introduced. It should be noted that sounds are substituted to meet phonotactic constraints of the receiving language. Therefore, it is plausible to argue that these consonants are not substituted because of the possibility of being pronounceable in the receiving language. Additionally, these findings reveal that a language borrows a word even if it has its own vocabulary for a certain object. Therefore, it is not always that a language borrows to fill a lexical gap rather it borrows for prestige. For instance, the Nyakyusa word for orange is /uluki/ but it has borrowed a word /i-ʃɔŋgwa/ from a Swahili word /ʃɔŋgwa/ ‘orange’.

Also, as referenced in section 3, the glides /w/ and /j/ are only used when preceded with a consonant. However, in the current study, the findings expose that these glides can be used without being preceded by another consonant. The following precedents confirm this: /ɔwazili/ ‘minister’ and /ijunifɔmɔ/ ‘school uniform’. Therefore, to some extent, these findings are in line with Robinson (2023) who observed that some non-native sounds in the borrowed words penetrate in the Nyakyusa sound inventory. He revealed that during data collection, he heard many Nyakyusa speakers uttering the sound [y] in the word *Yanga* (name of the football club) instead of *Janga*. However, he asserted that the case of non-native consonants is rare in the Nyakyusa language.

3.2.3 Direct Phonological Borrowing

Based on the findings, it is noticed that a few sounds of the loanwords, which are not part of the Nyakyusa sound inventory have not been substituted. Rather, they have been retained in the languages to fill the phonological gaps that exist in these languages. For example, in the Nyakyusa language the sounds /z/, /ʃ/, and /ð/ in /ɔkɪɲɔzi/ ‘hair stylist’, /ɔbalɔzi/ ‘ten cell leader’, /idɪlɪʃa/ ‘window’ and /iaðabu/ ‘punishment’ have been introduced. However, it was noted that few elderly respondents could not say /idɪlɪʃa/ ‘window’ and /iaðabu/ ‘punishment’ instead they said /idɪlɪʃya/ and /iasabu/. Therefore, it is plausible to argue that, overtime, the sounds /z/, /ʃ/ and /ð/ will be used by almost all the Nyakyusa speakers and therefore they will become part and parcel of the Nyakyusa sound inventory.

Nyakyusa, like other Bantu languages, comprises open syllables and in view of that, it does not permit consonant bunches of words. However, the findings reveal that some consonant bunches of the loanwords in the Nyakyusa language have been endured. The following data outline this: /alfa/ ‘starting’, /iplasɪtɪki/ ‘plastic’, /ɪʃɪpsɪ/ ‘chips’, /ɔktɔbɔ/ ‘October’ (elicitation guides whereby the consonant bunches ‘lf’, ‘pl’, ‘ps’, ‘kt’, and ‘pt’ are not epenthesised with vowels. In this manner, these findings are in opposition to the Assimilation Theory which expects that the acquiring language adjusts the structure of the loanwords to fit its framework.

4.0 Conclusion and Recommendations

The study has revealed that loanwords in the Nyakyusa language undergo phonological changes. It has been observed that the borrowing language modifies the structure of the loanwords to fit its framework as the beneficiary language. Uncommonly however, the study disclosed that some remote sounds and consonant clusters have been endured. Based on that point of view, contrary to the Assimilation Theory's assumption that the recipient language adjusts the structure of the loanwords to accommodate its framework, it is conceivable to contend here that it is not always that all loanwords are remodelled to fit the structure of the borrowing language. Nevertheless, these findings cannot be considered conclusive, rather, more studies concerning phonological nativisation processes of the Swahili loanwords are required to come up with plausible generalisations, particularly in Bantu languages.

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