



Phonological Adaptation of Dholuo Verbs and Nouns Borrowed into Ekegusii

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Abstract: *This study evaluates how Dholuo lexical items (nouns and verbs) that got their way into EkeGusii language are integrated and nativised to fit within EkeGusii phonological inventory. Languages tend to borrow words from other languages when they get into contact with each other. EkeGusii, for instance, has borrowed many words from Dholuo as a result of assimilation and their regular interaction. The study targeted two types of populations: the population of participants and that of the borrowed words. Purposive sampling techniques were used to pick respondents for the study. Using Hooper's (1976) Generative phonology theory that seeks to explain the mental processes underlying language production and perception, the study identified and described the phonological changes that loan words from Dholuo undergo to fit into EkeGusii phonological system. The study confirmed that borrowed Dholuo words are integrated into EkeGusii phonological system through stop weakening, devoicing of Dholuo consonants, consonant substitution, vowel epenthesis, and vowel substitution. The findings from this study will contribute to the existing literature on African languages in relation to borrowing within generative phonology. Based on the findings of the study, more studies are recommended on other African languages to give a clear picture on how EkeGusii language adapts words borrowed from other Nilotic groups, considering that the Gusii people are bordered with Nilotic speakers.*

Keywords: *Assimilation, Devoicing, Phonological processes, Linguistic borrowing, Loanwords*

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1. Introduction

Phonological adaptation entails the process by which sounds in a language change or adapt over time. It is a natural phenomenon that occurs as languages evolve and speakers modify their pronunciation patterns (Anyona, 2017, Mecha, 2006). Phonological adaptation can occur at various levels, including individual sounds, sound combinations, and even entire phonological systems. One common type of phonological adaptation is assimilation, where a sound becomes more similar to adjacent/neighboring sounds, as in the case of English where the word “in” is usually pronounced as “im,” before

bilabial consonants like “p” or “b” in words such as “input” or “impossible.” In this context, most linguistic scholars such as Kinyia, 2008, Miriungi, 2013, and Mose, 2021 agree that when languages come into contact, they tend to transfer linguistic features to each other, hence the concept of borrowing.

According to Ogot (2018), borrowing entails the process by which one language takes words or lexical items from another and makes them part of its own vocabulary. It is important to note here that apart from lexical borrowing, there are a number of linguistic items that can be borrowed at phonological, morphological, syntactic or semantic levels. Here, true borrowed words are typically regarded as

phonologically, morphologically and grammatically assimilated into the receiving language (Haugen,1953; Sankoff, 1990), i.e., which suggests that when borrowed words(loanwords) get into another language, they are grammatically, phonologically and morphologically adjusted into the recipient language. In this context, Winreich (1953) and Winford (2010) posit that the main reasons for borrowing revolve around such issues as prestige and the need to allocate new things, persons, places and concepts.

In Anyona's (2017) view, for borrowing of words to occur, languages need to come into contact, in this case, speakers of the borrowing language come into contact with those of the lending language. EkeGusii language has had contact with a number of languages like, Maasai Dholuo and Kalenjin because of sharing a common ethnic border; and English and Kiswahili due to factors like assimilation, trade, colonization, religion and education.

One area of research on phonological adaptation has focused on the influence of language contact and bilingualism (Flege & Mackay, 2004; Anyona, 2017; Ogot, 2018; Matseshe, 2020). Studies in this line of thought demonstrate that when people get exposed to several languages or dialects, they usually develop a distinct linguistic repertoire that amalgamates features from varied linguistic systems, thereby resulting to phonological adaptation as speakers adjust their pronunciation to suit and/or accommodate the phonetic inventory and phonotactic constraints of each language or dialect that they come into contact with. Other lines of investigation have examined the role of social and cultural factors in phonological adaptation (Labov, 1972; Nevalainen, Palander-Collin, & Saily 2018), thus confirming that speakers may modify their manner of pronouncing words to signal affiliation or group identity.

Studies on the cognitive processes underlying phonological adaptation (e.g., Best et al., 2009; Best & Tyler, 2009) suggest that speakers engage in perceptual learning when adapting their pronunciation to a new linguistic environment through exposure and practice; individuals become more attuned to the subtle differences in phonetic categories and develop the ability to produce sounds that are more native-like. The other specific studies, such as Lin (2009), have examined Loanword adaptation and phonological theory, while others have looked at phonological adaptation in various language pairs and contexts, as in the case of tonal adaptation of English loanwords in Cantonese (Hao, 2009), and morpho-phonemic adaptation of English loan verbs in Lukabaras (Sasala, 2022).

2. Literature Review

This study focused on Dholuo nouns and verbs that got their way into EkeGusii language and the phonological processes that aid their accommodation during the adaptation process. Evidently, when two languages get into contact, the speakers of such languages are bound to influence each other in one linguistic aspect or another.

A number of studies have been done globally on the phonological processes that occur during the integration of the borrowed words as a result of phonological differences. These, among others include: phonological loan word adaptation in Mandarin Chinese, with a focus on the substitution patterns for consonants and resyllabification processes in Mandarin Chinese loanwords from English, German, and Italian (Miao, 2005); vowel selection in Japanese loanwords from English (Kaneko, 2006); phonological processes involved in the adaptation of English loanwords in Japanese, with a focus on segmental and prosodic changes (Inkelas, 2014); French loanwords in Vietnamese with a focus on the role of input language phonotactics and contrast in loanword adaptation (Kang, Pham&Storme, 2016); and phonological analysis of English Loanwords in Spanish Language using Distinctive Features (Puspitasari &Subiyanto, 2020).

In the African context, on borrowing and phonological adaptation have focused on issues such as vowel substitution of English loanwords in Bemba (Kangwa, 2017); phonologization of Hausa loanwords from English, with emphasis on how Hausa, a West Chadic language (Afro Asiatic phyla) remodels loanwords from English (Indo – European) to suit its pre-existing phonology (Damun, 2016); adaptation of French Loanwords in Algerian Arabic (Ziadna, 2018); Swahili loanwords and their semantic nativization into African languages (Lusekelo, 2013); English loanwords in Ngɔmbà, a Bantu language spoken in the West Region of Cameroon (Fossi & Lambo, 2012) and adoption and adaptation of English words into Shona (Chimhundu, 2002; Zivenge, Mheta & Kadenge, 2010); phonological adaptation of Spanish loanwords in Northern Moroccan Arabic (Sayahi, 2005); and adoption and adaptation of English words into Shona (Chimhundu, 2002; Zivenge, Mheta & Kadenge, 2010), among many others.

In the Kenyan scene, available literature indicates that studies on phonological adaptation have largely looked at the influence of English and Kiswahili on Kenyan languages. For instance, Karuru (2013) and Kinuthia (2008) examined the influence of English on Gikuyu, one of the major Bantu languages spoken in Kenya, while Iribemwangi and Karuru (2012) examined the borrowing of Gĩ-Gĩchũgũ dialect of Gĩkũyũ language (a Bantu language just like EkeGusii) from Kiswahili, and

discovered that Gĩ-Gĩchũgũ dialect of Gikũyũ employs deletion, preservation, substitution, its adaptation of consonants, and insertion, preservation, and substitution in its adaptation of vowels. The researchers found out that Gikuyu speakers adapt their pronunciation to align with English and Kiswahili phonological features, such as vowel quality and stress patterns. In the same vein, unlike Mwita's (2009) study on the adaptation of Swahili Loanwords from Arabic, and Boen's (2014) focus on loan words in Nandi from English and Kiswahili, Owino (2003), Yamo (2014), and Odhiambo (2016) investigate the phonological nativization of Dholuo loanwords derived from Swahili, and confirmed that Luo speakers modify their consonant inventory and tonal patterns when speaking Swahili by aligning them with Swahili phonology. Along similar lines, Ontieri (2013) looks at the phonological influences of Kenyan Bantu Languages (First Languages) on Kiswahili, while Shidiavai (2015) did a phonological analysis of Lwidakho loanwords from Kiswahili and English.

In relation to EkeGusii, a Bantu language spoken by the natives of the present Kisii and Nyamira Counties, Kenya (Guthrie, 1948; Bosire, 1993; Magachi, 2015; Otieno&Mecha, 2019), scholars such as Mecha (2016), Anyona (2017), and Mose (2020) studied EkeGusii borrowings from English language. In this context, even though these studies looked at phonological and morphological nativization of loanwords from English, their focus was only on noun loans from English within the optimality theory. Based on these studies among many others that could not be mentioned herein owing to the limitations of space, it is arguable that little has been done, particularly on EkeGusii phonological processes in borrowing from Dholuo, an indigenous language spoken in Nyanza Province of Kenya. Therefore, this study went a notch higher by looking at the nouns and verbs that EkeGusii has borrowed from Dholuo (a Nilotic language spoken by the natives of the current Migori, Kisumu, Homabay and Siaya counties, Kenya, within the generative phonology framework.

3. Methodology

This study adopted a descriptive research design to allow for concrete, contextual, In-depth and more nuanced description (Baxter & Jack, 2008; Dornyei, 2010; Mugenda &Mugenda, 2003) of the phonological adaptation processes that result from EkeGusii borrowing from Dholuo.

The study adopted two types of population: population of the participants in the study, and the population of EkeGusii loan nouns and verbs from Dholuo. The population of the participants constituted of EkeGusii speakers living in Nyabioto, Bogiakumu ward, Kisii

County as the main population from whom data was collected. The researcher specifically focused on the group of EkeGusii speakers who got assimilated from Luo to Omogusii, currently residing in Kisii South, Sub-County, Kisii. There was also need to include Dholuo speakers in the target population to enable the study check authenticity of the meaning of borrowed nouns and verbs from Dholuo language, considering that the researcher is not a speaker of Dholuo language. Furthermore, there was need to collect data from a sample of native EkeGusii speakers not in contact with Dholuo language to test the variability in the use of the borrowed nouns and verbs. It was from the population of the participants that the second type of population was derived from as the units of analysis for investigation.

The respondents for the study included three 3 native EkeGusii speakers living in Nyabioto area, Kisii, 2 adult native speakers of EkeGusii aged between 68 and 72, arrived at via purposive and snowball sampling procedures (Kothari 2004) respectively, 2 native Dholuo speakers aged between 55 and 59, i.e., to help in determining the meaning and pronunciation of Dholuo words, since the researchers were not native Luo speakers. The study settled on 55- and 59-year-olds as these were taken to have vast knowledge about the languages under investigation. These respondents were purposively picked from the Kisii (Kisii South Sub-County), and Nyamira counties, Kenya, considering that most native speakers of EkeGusii (the receiving language) reside here, and the fact that the majority of the people who reside here are speakers of EkeGusii language, who got assimilated from Luo into the Gusii community and later became natives of the Gusii community, currently speaking EkeGusii as their native language.

Using the Generative phonology theory proposed by Hooper (1976), the the researcher analysed phonological processes involved in Dholuo word adaptation into EkeGusii language. This involved analyzing the changes that occur in the sound patterns of these borrowed words (Dholuo nouns and verbs borrowed into EkeGusii) as they are integrated into the phonological systems of EkeGusii. In this context, using a corpus of 50 words (nouns and verbs from interviewees in the home and business settings, and secondary data from English-EkeGusii and English-Dholuo, the study presented and analyzed the borrowed lexical items in the form of single words (nouns and verbs within different domains). Similarly, Dholuo words borrowed into EkeGusii were analyzed against EkeGusii and Dholuo phonological constraints rankings in order to account for the various phonological changes observed phonemically (i.e., the alterations that occur in the sound structure of a language over time), since constraints ranking between any two languages differ. These are better elucidated in the ensuing discussion.

4. Results and Discussion

The study established that Dholuo language has some consonants which are not present in the EkeGusii consonant paradigm. As such, the study came up with the phonological processes the alien Dholuo consonants undergo during the adaptation process.

Table 1: EkeGusii consonant system

	Bilabial		Alveolar		Alveo-palatal		Velar	
	Voiceless	Voiced	voiceless	Voiced	voiceless	Voiced	Voiceless	voiced
Plosives	p		t				k	
Fricatives		β	s					ɣ
Flapped liquid				r				
Affricate					c			
Nasals		m		n	ɲ			ŋ
Semi-vowels		w				y		
Prenasals		mb	nt ns	nd	ɲc		nk	ŋg

(Adapted from Mose 2014)

The following are the processes that Dholuo nouns and verbs borrowed into EkeGusii undergo in order to be accommodated within EkeGusii environs:

4.1 Stop weakening

Some of the Dholuo stops adapt into EkeGusii by being replaced by the EkeGusii continuants through stop weakening process. Notice that the Dholuo voiced bilabial stop [b] is not part of the EkeGusii consonant inventory. It was observed thus that whenever the Dholuo voiced

bilabial stop [b] occurs in the word medial position in a loanword, it is replaced by the EkeGusii voiced labio-dental fricative [β] through stop weakening process. In this context, the EkeGusii native speakers render the Dholuo consonant [b] as [β] because they share the feature [+labial]. The excerpts below illustrate the stop weakening process in EkeGusii.

4.1.1 Weakening of the Dholuo stops [b].

The above data is better represented in the following phonological process:

Table 2: Illustration of the Weakening Dholuo Stop [b]		
Dholuo word	EkeGusii borrowed word	English Equivalent
Buru /buru/ (N)	Eburu	Ash
Sibuor /sibuor/ (N)	Esibuori	Lion
Budho /buðo/ (V)	kobuta	to idle

Process

b → β
 [+stop, +bilabial] → [-stop, +bilabial]

Therefore, Dholuo bilabial stop/b/is weakened into the EkeGusii bilabial fricative[β]. This is explained by the fact that when a feature distinguishes one phoneme from another, it is a distinctive feature or a phonemic feature (Abugharsa, 2018). This is in line with distinctive feature theory and its relevant provisions – which argue that

phonemes are not independent units, as they can be analyzed into a combination of different features.

4.1.2 Devoicing of the Dholuo consonant [ð]

The Dholuo voiced dental fricative consonant [ð] is replaced by the EkeGusii voiceless alveolar stop consonant [t] during the adaptation process. In this respect, the EkeGusii native speakers render the Dholuo consonant [ð] as [t], considering that [ð] can easily be substituted with [t] (see the excerpts below)

Table 3: Illustration of Devoicing of Dholuo Consonant [ð]		
Dholuo word	EkeGusii borrowed word	English Equivalent
Odheru (N)	Oroteru	traditional tray
Budho (V)	kobuta	to idle

4.1.3 Consonant substitution of the Dholuo consonant [θ]

As already mentioned, the Dholuo voiceless dental fricative [θ] is not part of the EkeGusii consonant inventory. EkeGusii native speakers tend to replace [θ]

with [t], a voiceless alveolar plosive. In terms of articulation, the two sounds were found to have a different place and manner of articulation, and are produced with a free flow of air stream – meaning they are all voiceless. The table below illustrates the aforesaid adaptation process.

Table 4: Illustration of Consonant Substitution of the Dholuo Consonant [θ]		
Dholuo word	EkeGusii borrowed word	English equivalent
Pak /pak/ (V)	baka /βaka/	praise
Ruoth /ruoθ/ (N)	Eruoti /eruoti/	King

4.1.4 Consonant substitution of Dholuo consonant [j]

The Dholuo voiceless palato-alveolar glide is not part of the EkeGusii consonant inventory. That is, EkeGusii

happens to have another version of the voiceless palato-alveolar, which is [ch]. Here, the EkeGusii native speakers render the Dholuo consonant [j] as [ch], because they are both voiceless and have the same place and manner of articulation. Substitution of Dholuo consonant [j]

Table 5: Illustration of Consonant Substitution of the Dholuo Consonant [j]		
Dholuo word	EkeGusii borrowed word	English Equivalent
Jachien (N) /jachien/	Nyachieni /nyacieni/	Satan
Rajuok (N) /rajuok/	Ekerachuoki /ekerachuoki/	a plant with stick leaves

4.2 Phonological adaptation of Dholuo vowels

Dholuo has a nine vowel system consisting of the low, back vowel /a/ and four pairs of other vowels distinguished primarily by [ATR] harmony (Ngala 1994; Omondi 1982; & Okombo 1997). The nine distinctive vowels are differentiated by the features [high], [low], [back], [round], and [ATR]. On the other hand, EkeGusii has fourteen vowels only. This fact was important because the study describes how the nine Dholuo vowels are adapted to fit into the EkeGusii phonological system. The study also explains what

determines the choice of one Dholuo vowel over another during the adaptation process. The phonological processes involved in the adaptation are discussed below.

4.2.1 Vowel epenthesis

In phonology, epenthesis is defined as the addition of one or more sounds to a word, especially in the beginning syllable or in the ending syllable or in between two syllabic sounds in a word. Words borrowed from Dholuo language into EkeGusii adapt to EkeGusii environment through addition of another vowel to the borrowed word so that they can fit into the environment of EkeGusii language.

V. Dholuo word	EkeGusii borrowed word	English equivalent
Pak (V) /pak/	bak-a / βaka/	praise
Got (N) /got/	Egot-i / ɛgoti/	hill
Rabuon (N) /rabuon/	Ri-rabuon-i /riraβuoni/	sweet potato

4.2.2 Vowel substitution

This process occurs when a vowel is substituted with another vowel so that the foreign word is adapted to the EkeGusii environment.

VI. Dholuo word	EkeGusii borrowed word	English Equivalent
Mino (V) /mino/	komina /komina	bargain
Temo (V) /temo/	gotema /gotema	to try
Chando (V) /chando/	Gochanda /gochanda to bother	

The final vowel ‘o’ for Dholuo borrowed verbs above have been substituted with the vowel ‘a’ so that they can fit within the EkeGusii environs.

5. Conclusions and Recommendations

From the foregoing analysis, it is arguable that when Dholuo nouns and verbs are borrowed into EkeGusii, they undergo phonological adaptation to align with the phonetic and phonological rules of EkeGusii language. In the case of Dholuo nouns borrowed into EkeGusii, several phonological changes do occur. These changes were found to include modifications of Dholuo consonant sounds to sound like the ones that are acceptable in EkeGusii environs. In Dholuo, words with the voiceless dental fricative /θ/ that are not allowed in EkeGusii language were found to get adapted to the sound /t/ (voiceless alveolar stop), as in the case of the word “Ruoth” meaning King in Dholuo, which becomes Eruoti in EkeGusii. Concerning borrowed verbs, similar phonological adaptations do occur. Moreover, the study found out that when Dholuo nouns and verbs are borrowed into EkeGusii, they undergo phonological adaptations to align with the phonetic and phonological rules of the EkeGusii language. These adaptations were found to involve changes in consonant clusters, vowel quality and syllable structure.

More significantly, it was noted that when Dholuo nouns and verbs are borrowed into EkeGusii, for instance, they undergo phonological adaptation to conform to the sound patterns and constraints of EkeGusii. This adaptation process was found to involve several phonological processes such as stop weakening, vowel epenthesis, vowel addition, vowel substitution and consonant substitution. Considering the reviewed literature and the findings discussed herein, there is need for further research on the vitality of the EkeGusii language as a result of lexical borrowings.

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