

THE PHONOLOGIZATION OF ENGLISH WORDS IN KALANGA

Andy Chebanne¹ & Chipo Phili²

Abstract

The Kalanga language is spoken in Botswana and Zimbabwe. In Botswana, it has no literary role, but the majority of its speakers have learnt English at school. This has over time led to borrowing and adoption of English words in the language. Borrowing is linked to the status of L2 which is regarded as technologically, culturally and politically prestigious. Certain classes of speakers of L1 may mark themselves socially by phonologizing in a particular manner. When English words are acquired, they are assigned the phonological features of Kalanga. The phonologization processes outlined in this paper relate to the nativization of foreign sounds that characterize lexical borrowings from one language into another. When these lexical items or terms are phonologized, they take the phonological and morphological characteristics of the borrowing language. Grammatical changes may eventually occur if these processes are widespread or are associated with important syntactic accompaniments with borrowings. For instance, once nativized, such lexical items also acquire features such as tone which are not part of the source language. The contrastive discussion of phonologization is a relevant topic in the acquisition of English and provides insights on how the pronunciation of English by Kalanga L2 learners of English may be ameliorated.

Keywords: consonant clusters, epenthesis, lexical borrowing, phonologization, syllabification

1. Background

Kalanga is a Shona-Nyai language, spoken in Botswana and Zimbabwe. Linguistically, it is a Western Shona variant; however, historically it has undergone important phonological and lexical changes due to influences from neighbouring Northern Sotho languages. Kalanga has therefore developed several dialects due to the minority status that resulted from divisive colonial boundaries and language use policies that disfavoured it. Most recently, the language is mainly influenced by English, and to some extent by Setswana (and or other Sotho-Tswana languages), Ndebele, and Afrikaans – and this is

¹ Department of English, University of Botswana, E-mail: chebanne@mopipi.ub.bw; chebanne@gmail.com.

² Centre for Academic Development, Communication and Study Skills, University of Botswana. E-mail: Chipo.Phili@mopipi.ub.bw

mostly noticeable through vocabulary items relating to new cultural materials. Because of its minoritization and dialectalization, Kalanga sometimes borrows indirectly through other languages. For instance, Afrikaans borrowings are acquired via Setswana, and this is shown by phonological nativization strategies that use non-native sounds. Since phonologization in this paper targets mainly the lexical items from English, their acquisition is actually complex. As Alimi and Mathangwane (2006: 84) indicate, learning vocabulary involves three different but related tasks: labelling which consists in matching sequences of sounds with concepts and referents; packaging which is the application of labels to different labels; and network building which consists in fitting words within lexical or sense relations.

2. The Situation of English in Botswana

The English language was officially introduced at the onset of the British Protectorate of Bechuanaland in 1885. However, long before that, the Missionaries had started working among some Botswana communities around 1839. They had started introducing schools and the English language in education (cf. Ramsay et al. 1996; Bagwasi 2002). Subsequent language policies confirm the colonial status quo as indeed the last National Commission on Education (1993) which made English compulsory in Education even from primary school (see Arua 2007). Though schools were established in the Kalanga areas around the 1900s, Kalanga people only started having a fair share of the influence of English through formal and informal acquisition during the colonial period. This situation has marked the Kalanga speech community like indeed all other speech communities in Botswana (Alimi & Mathangwane 2006). Currently English occupies the prestigious status of official language as well as the language of instruction at all levels of education. Practically this means that English pervades all spheres of life in Botswana (see Bagwasi, 2002; Arua, 2007).

3. Lexical borrowing

Borrowing otherwise referred to as loaning is a common occurrence in language contact situations (see Batibo, 1996). Borrowing may occur when L1 usage ends up integrating a lexical item or a lexical feature from L2. Such items or features are usually not part of the system of L1 prior to borrowing. Some define borrowing as loaning of words, others as adoption of words. Borrowing is confirmed by re-phonologization

of integrated lexical items that come from another language – this is called nativization (see Batibo, 1996). Education in foreign language expands and generalizes this lexical integration. Borrowing is selective: a certain type of vocabulary is targeted. Borrowing occurs even when there is no language shift. When two languages and cultures come into contact, different experiences are shared. Often there is a situation of culture and language superiority; one language with its culture becomes more powerful and dominant. The language that experiences inadequacies in expressing new experiences borrows to fill the knowledge and experience gap. Depending on cultural and linguistic situations, borrowing does not necessarily require perfect bilingualism. In the operation of borrowing, English is a *superstratum* language (see Kadenge & Mudzingwa, 2012), that is, it has higher prestige; and Kalanga is a *substratum* language, that is, it has lower prestige. Kadenge and Mudzingwa (2012) studied the illiterate and literate speakers of ChiShona in their pronunciation of English loan words. They found that there were important differences between the two groups in that learned people pronounced with less nativization while the illiterate pronounce with complete re-phonologization of the English loanwords. Lexical domains that are favoured by borrowings are:

- Technology and science
- Agriculture and food technology
- Medicine and health
- Politics/administration/government agencies
- Finance and commerce
- Sports and entertainment
- Education and culture

Factors that have fostered borrowings from English can be summarized as follows. English as a colonial language quickly became a high status language in the territories where Kalanga people lived. It is used in education, in religious activities and in administration. The influence of English culture and language occurred in situations involving the adoption or integration of new experiences and knowhow in the domestic, agricultural, and technological domains. Kalanga people adopted these new experiences to fill the “knowledge gap”. Formal and informal social contexts also provided occasions for borrowing. Except in few instances, borrowed vocabulary items were phonologized using native tonal, syllabic, morphological and grammatical considerations

(see Singabapha, 1998).

In historical linguistics, borrowing is also of great importance as an indicator of “folk etymology”, the history of words and contact situation (see Batibo, 1996); in this case, Kalanga has had two periods of borrowing (see Alimi & Mathangwane, 2006; Bagwasi 2002):

The colonial period when speakers were not educated and borrowed limited vocabulary in such domains as agriculture, industry, retail industry (commercial products) which characterized their daily cultural interaction with English speakers and their culture;

The post-colonial period, when educated speakers of Kalanga became bilingual, and borrowed and phonologized selectively – certain language use attitudes allowed or disallowed borrowing - phonologization is also less extensive, and there is adoption of source language consonant clusters: /kl/; /fr/; /fl/; /tr/, /dr/; and use of native grammatical affixes with whole English words.

Pedagogically, it means that in these sociolinguistic contexts, teachers of English must pay attention and plan for corrective phonetic exercises for Kalanga learners of English (see Batibo, 1996; also Alimi & Mathangwane, 2006). Linguistically, lexical items that have been borrowed do not just undergo phonologization. They also undergo other grammatical changes through affixation – especially nouns and verbs:

Nouns: Kalanga is a nominal gender language, that is, words must necessarily fall into the language noun class systems.

(1) Nominal gender assignment

Singular	Plural
mótà ‘car’ cl. 9 (singular)	dzi-mótà ‘cars’ cl.10
títjá(rà) ‘teacher’ cl. 3	mà-títja(rà) ‘teachers’ cl.6
khàmèrà ‘camera’ cl. 9	dzi-khàmèrà ‘cameras’ cl.10

Note that borrowed lexical items designating objects are often placed in classes 9/10 and 7/8; but those designating humans are assigned classes 3/4 and 1/2 as the examples above show.

Verbs: English verbs borrowed by Kalanga are adapted to the morpho-phonological features of the Kalanga verb:

(2) English loan verb adaptation in Kalanga
-zwí-rìpìt-ìsà ‘make oneself repeat’

-divà̀yìd-ìwà̀ ‘be divided’

Phonological adaptation is also patent when English words are borrowed in Kalanga

Morphology: English lexical items coming into Kalanga are assigned tonal patterns, adapted to the syllable structure of Kalanga and undergo morphological adaptation as well. Assigning tone to lexical items is part of the phonologization process; and should be construed to occur concurrently. In examples (3) below, the English words adapt to Kalanga morphology through an insertion of a vowel to break a consonant cluster, for instance, the vowel ‘i’ is inserted to break the consonant cluster ‘tl’ in ‘atlas’, and another vowel is added word finally.

- (3) Morphological and syllable adaptation of English words to Kalanga

átílàsì [HHLL] > morphological adaptation of ‘atlas’

hànyányìsì [LHHL] morphological adaptation of ‘onion’

Syllabification: English syllable clusters undergo simplification, that is, the breaking down of consonant clusters. Note that the sequence –nk- is a segment in Kalanga:

- (4) a. **dirínkì** [LHL] Kalanga syllabification of ‘drink’

fírìjì / furìjì [LHL] Kalanga syllabification of ‘fridge’

- b. Syllable opening

filímì [HHL] syllabification of ‘film’

gilàzì [LHL] syllabification of ‘glass’

Sound adaptation: English vowels, especially diphthongs, undergo vowel simplification or modification and this changes the quality of English vowels:

- (5) Change of vowel quality

Théjìpì [HHL] > re-syllabification ‘tape’ /tep/

fájìlì [HHL] > re-syllabification ‘file’ /faìl/

Note that in the above examples epenthesis occurs whereby a glide is inserted to break the diphthong into two successive syllables. This process of inserting a consonant to break diphthongs is wide-spread in Kalanga as examples in (7), (8) and (19) below also demonstrate.

There is no possibility that these issues can be resolved without appropriate teaching strategy interventions by teachers of English as pointed out earlier in this paper (see Alimi & Mathangwane, 2006). And the young generation of Kalanga language speakers is likely to borrow more because of their exposure to western education for a long time and interaction with other English speakers. In addition, the younger generation's exposure to television, newspapers and music, which in most cases are in English will encourage more borrowing in English and will expose the young generation to a wide range of new words, and expressions.

4. Phonologization of English words in Kalanga

The discussion in this paper is based on the contrastive linguistic framework which employs the notion of hierarchy of difficulty in the sound systems of two languages in contact. In this hierarchy of difficulty, there can be positive, negative or zero transfer of sounds. The concept of transfer used in this theoretical framework applies to the grammar, the sound system and the vocabulary of the languages in question. In the discussion, the analysis targets differences in the phonology of Kalanga words borrowed from English. In this regard, the article takes Roach's view (1983: 75) that "...sound patterns of languages can be described in terms of limited dimensions, usually expressed in articulatory terminology...(1) consonantal versus vocalic, (2) point of articulation among consonants, and the frontness-backness among vowels, (3) manner of articulation among consonants, and height among vowels, and (4) voiced versus voiceless among consonants". Further, the phoneme substitution that can be made by another language can only be known without the formulation of specific rules which relate underlying forms of their phonetic consequences. These consequences are otherwise called interferences and each time they indicate that a speaker of a native language is presented with a foreign sound that has some perceptual degree of similarity to a phoneme in the speaker's language. In this regard, both the descriptive approach and the standard phonological theoretical analysis (see particularly Katamba, 1989 and Clark and Yallop, 2003) are used in this discussion.

Recent theoretical studies on related languages have been undertaken by Kadenge et al. (2012). The data to be used in this paper will comprise words from English that have come into current usage in Kalanga. Most of these words were collected by Singabapha (1998)

Figure 3 English Diphthongs (Roach 1983, 2009 edition: 16; 18)

iə		uə	
ɛɪ	əʊ	ɔɪ	
ɛə		aʊ	
	aɪ		

English has 20 vowel phonemes, 12 single vowels and 8 diphthongs. Kalanga has only 5 vowels. While English has also functional intensity (For example, 'bit' and 'beat' are distinguished by the tense-lax distinction and not length) on vowels and intonation on syllables, Kalanga does not phonemically make such phonological distinctions. In Kalanga, it is tone rather than the feature tense which is grammatical. This difference is important in showing which phonological features of English vowels are lost when lexical items in which they occur are borrowed in Kalanga.

The syllable structure of English also differs significantly from that of Kalanga. English can have complex syllable onset where the syllable onset has three sounds (e.g. street /stri:t/) while Kalanga has a simple syllable structure (e.g. Britain is rendered bu.ri.te.ni when adopted into Kalanga). English has both open (CV (onset and nucleus) and closed syllables CVC (with a coda) types), while Kalanga has only open syllables (CV types). As Mathangwane (1996: 75) noted, a Kalanga syllable may also be made up of a syllabic nasal which is apt to bear a tone, suggesting that it is moraic (tone bearing unit). Most cases of syllabic nasals occur as noun prefixes for classes 1 and 3 and 9 and also the third person singular object marker. The syllabic nasals of classes 1 and 3 are derived from {mu-} reduction.

Where original English words had consonant clusters, these clusters are broken up in Kalanga by epenthesizing or inserting a vowel between the successive consonants. Consequently such syllables, adapt to the CV syllable structure of Kalanga. This is observed in the following words.

(7) Syllable adaptation of English words in Kalanga

English word	Kalanga adapted form	English word	Kalanga adapted form
driver /draɪvə/	dirájivàrà	club /klʌb/	kilábhù
plastic /plæstɪk/	pùlāsítiki	train /treɪn/	tírínà
plate /plert/	pùlējítì	bridge /brɪdʒ/	bhùrídʒì
film /fɪlm/	filímù	blouse /blaʊz/	bhùlávúzi
plank /plæŋk/	pùlánkà	fry /fraɪ /	fúrájà
brush /brʌʃ/	bhùrášhi	brake /breɪk/	bhùríki
trip /trɪp/	tírípì	fridge /frɪdʒ/	fúrídʒì
class /kla:s/	kilási		

Note that in Kalanga there is no need to change /l/ to [r] because the language does have both /l/ and /r/ in its inventory (see Mathangwane 1999: 19). Note also that the patterning of tone complies with some of the tonal features found in the languages such as the Obligatory Contour Principle and the down-stepping of the third high tone segment.

Moreover, from the following data, it is observed that vowel insertion takes place when these consonant clusters occur word-initially, medially and finally as shown by the examples below.

(8) Vowel insertion in word-initial position.

English	Kalanga	English	Kalanga
driver /draɪvə/	dirájivàrà	club /klʌb/	kilábhù
plate /plert/	pùlējítì	class /kla:s/	kilási
brush /brʌʃ/	bhùrájì	train /treɪn/	via Afrikaans: tírínà
bridge /brɪdʒ/	bhùrídʒì bhùrídʒì	blouse /blaʊz/	bhùlávúzi

(9) Vowel insertion in word-medial and final positions.

English Words	Kalanga Borrowed words
plastic /plæstɪk/	pùlāsítiki
gold /gəʊld/ gòlídì	
film /fɪlm/	filími / filímù

Consonant clusters are broken up by close vowels /i/ or /u/. The quality of the epenthetic vowel is determined by the type of consonant preceding this vowel. It can be observed that in case the initial

consonant in a cluster is a labial (that is, bilabial and labio-dental), the epenthetic vowel is the back close vowel /u/. In most cases [u] follows labial consonants but in some cases it is [i] and other vowels. For instance ‘bridge’ very often becomes [biridʒi]. In fact, Uffmann (2006) addresses the issue of the contextual factors that determine the choice of the vowel inserted. In cases where the initial consonant in the cluster is non-labial, the epenthetic vowel is the front close vowel /i/ seen in the examples in (11) and (12) below.

The vowel insertion rule which accounts for this occurrence can be formulated as follows:

(10) Vowel Insertion Rule

- a) Ø → [+round]/ [+Consonant; +labial] - [+consonant]
 b) /i/ occurs elsewhere.

(11). Examples where /u/ is inserted after the labials /p/, /b/, or /f/.

English words	Kalanga adapted form	English words	Kalanga adapted form
plastic /plæstɪk/	pùlásítikì	blouse /blaʊz/	bhùlávúzi
plank /plæŋk/	pùlánkà	flying machine /flaɪ məʃi:n/	fùlémántʃinà
plate /plert/	pùléjiti	fry /fraɪ/	fúrájà
brush /brʌʃ/	bùráʃi	fridge /frɪdʒ/	fúridʒi
bridge /brɪdʒ	bhùridʒii	brake /breɪk/	bhùrikì

(12) /i/ inserted after non-labial consonants, (that is, the elsewhere case)

English Words	Kalanga adapted form	English Words	Kalanga adapted form
train /tren/	tírínà	class /kla:s/	kílási
trip /trɪp/	tírípì	club /klʌb/	kílábhù
tray /treɪ/	thìréjì	christmas /krɪsməs/	khírísì!mùsì
driver /draɪvə/	dìrájívàrà	globe /gləʊb/	gìlóbhò
drink /drɪŋk/	dìrínkì	plastic /plæstɪk/	pùlásítikì

Determination of the quality of the vowel inserted by the preceding consonant does not apply to word-initial and word medial positions

only, but also in word final position. In this case a round vowel /u/ or /o/ is attached after a word-final labial consonant in syllable-final position. The vowel /i/ or /e/ occurs after non-labial consonants (that is, dentals, alveolars, alveolar-palatals and velars). Clements & Hume's (1995) Feature Geometry model would account for this assimilatory process as spreading the place features of the immediately preceding consonant to the inserted vowel. The examples in (13) and (14) below exemplify this.

(13) Word-final attachment of /u/ or /o/ after a labial consonant

English	Kalanga	English	Kalanga
dam /dæm/	dámù /dámò	club /klʌb/	kílábù
jam /dʒæm/	džémù	form /fɔ:m/	fómù
film /fɪlm/	fílímù	soup /su:p/	súpù
globe /gləʊb/	gìlóbhò	rough /rʌf/	ráfù

(14) /i/ or /e/ attached after a non-labial consonant

English	Kalanga	English	Kalanga
bag /bæg/	bégì	can /kæn/	káni
pan /pæn/	páni	fan /fæn/	féni
gas /gæs/	gésì	gate /geɪt/	gédè
pencil /pensl/	pénsélè possibly (also through Setswana)		pénsíle
cement /sɪment/	sàméndè / sàméntè (through Setswana)		
school /sku:l/	tʃìkólò / ìkwélè (through Setswana)		

The data also presents some exceptions, where the attached vowel is /u/ or /o/ even when the word-final consonant is not labial as shown below:

(15) /u/ or /o/ exceptionally attached after a non-labial word-final consonant

English Words	Kalanga words
stool /stu:l/	itúlò
wool /wʊl/	wúlù
pot /pɒt/	pót'ò
towel /taʊəl/	tháwúlò
chalk /tʃɔ:k/	tʃókò

In his description of the nativization of English consonant clusters in Tswana and Swahili, Batibo (1996) noted that English consonant

clusters were broken up by inserting a vowel between two consonants or after a consonant in word-final position. The vowels that break up these consonant clusters are [u] in the environment of a labial consonant and [i] when the environment is non-labial. Batibo (1996) formulates a rule accounting for this process as follows:

(16) Vowel insertion Rule (Batibo (1996).

$$\begin{array}{ccc} C1 & \{ C2 \} & C1 & V & \{ C2 \} \\ & \{ \# \} & & & \{ \# \} \end{array}$$

In the phonological rule presented, a two consonant cluster is broken up by inserting a vowel between the two consonants. This rule further states that such a vowel may occur after a syllable-final consonant as indicated by the syllable boundary symbol # below C2. A similar behaviour is also observed in the case of English loanwords with consonant clusters when they are adopted into Kalanga. As illustrated by the examples provided above, the vowel /u/ or /i/ is epenthesized to breakup these consonant clusters, each occurrence conditioned by a particular environment. As a result, the syllable pattern in these borrowed words is CV, which is typical of the Kalanga phonology. We are therefore assuming the application of a similar rule in Kalanga. In future research it would be interesting to subject this data to the analysis of ChiShona in Kadenge et al (2012).

5. The case of the low vowel /a/

The importance of vocalic interaction in phonology has been demonstrated in languages that are related to Kalanga (see Kadenge et al., 2012). In contrast with the front and back vowels, the vowel /a/ can be inserted word-medially within clusters. The Kalanga low vowel /a/ is attached word-finally after a syllable-final consonant. It is worth mentioning that Kalanga verbs, like in many Bantu languages, end with the final vowel “-a” (see Mathangwane, 1996; Chebanne et al., 1995). In compliance with this tendency, English verbs adopted into Kalanga always occur with this final vowel “-a”. Thus such verbs assume the same morphological pattern as native Kalanga verbs as shown in (17) below.

(17) Final vowel “-a” assuming the same morphological pattern as native Kalanga verbs

English Verbs	Kalanga adapted form (verbs)
iron /aɪən/	/-ájínà/ (press) (-ayina)
change /tʃeɪndʒ/	/tʃèŋtʃà / (tjéntja)
drive /draɪv/	/-dirájívà/ (-dirayiva)
pass /pa:s/	/-pàsà/ (-pasa)_
fry /fraɪ/	/-fúrájà/ (-furaya)
phone /fəʊn/	/-fówúnà/ (-fowuna)
jive /dʒaɪv/	/-dʒàjívà/ (-jayiva)

It seems this rule has been so over-generalized in the phonological system of Kalanga that it also applies to nouns - that is, some English nouns that have come into Kalanga have copied this behaviour of verbs and end with the low vowel /a/. In other words, nouns which end with a consonant in English have the final vowel /a/ attached to them in Kalanga consonant with the CV syllable structure of the borrowing language. Occurrence of the low vowel /a/ word-final in borrowed nouns does not seem to be restricted to any particular environment. It occurs indiscriminately after different consonants such as: /n, t, tʃ, v, s, k, p, l, r, dʒ/. The following examples of borrowed nouns ending with the low vowel /a/ illustrate this phenomenon.

(18) Borrowed nouns ending with the low vowel /a/

English Nouns	Kalanga adapted forms	English Nouns	Kalanga adapted forms
sack /sæk/	sákà	plank /plæŋk/	púlánkà
train /treɪn/	tírínà	tank /tæŋk/	tánkà
driver /draɪvə/	dirájívà(rà)	stamp /stæmp/	itémpè /itémpà
pen /pen/	pénà	samp /sæmp/	sámpù /; ítámpà
ball /bɔ:l/	bólà	concert /kɒnsət/	khónsátà
bank /bæŋk/	bánkà	change /tʃeɪndʒ/	-tʃèntʃà / tʃèntʃí

An interesting fact to note in the examples above is that the last seven words have word-final consonant clusters of /nk, mp, ns, ntʃ/ which are not separated by vowel insertion as is the case with other consonant clusters discussed in this paper. As noted in Mathangwane (1996) and Chebanne et al (1995), Kalanga has voiced and non-voiced pre-nasalized consonants in its consonant inventory. These include /mb, mp; nd, nt; ŋg, ŋk/. It is assumed, consequently, that consonant

clusters made up of a nasal plus a voiceless consonant are not separated through vowel insertion because such combinations of nasal plus consonant are permissible in this language as well as in other Bantu languages.

6. The case of the phonologization of diphthongs in English words

The English Phonological system distinguishes between long and diphthongal vowels, a distinction which does not exist in Kalanga. This distinction allows an English syllable to have as its nucleus a short vowel, a long vowel, a diphthong or a syllabic consonant for a nucleus. Kalanga, on the other hand, has five vowels only in its inventory: /i, e, a, o, u/. Consequently, English words which have either long or diphthongal vowels are instead realized with a short or long vowel as explained below when they are adopted into Kalanga. English Words which have long vowels or diphthongs may be realized with two vowels split by a glide to comply with the CV syllable pattern, as shown in the examples below.

(19) English long vowels and diphthongs realized as two vowels or with a glide

English forms	Kalanga adapted	English	Kalanga adapted forms
key /ki:/	khíjì (khiyi) / khû	fry /fraɪ/	fúrájà (furaya)
tea /ti:/	tíjì (tiyi) / tî	tray /treɪ/	thìrèjì (thèréyì / thireyi)
tie /taɪ/	thájì (thayi) / thai	light /laɪt/	lajiti (layiti / laiti)
tile /taɪl/	thájìlì (thayili)	chain /tʃeɪn/	tʃájìní (tjayini / tʃáínì)
line /laɪn/	lájìní (layini)	iron /aɪən/	-ájìná(-ayina / aina / ájìní)

As the bracketed examples demonstrate, when the glide in the loanword is sometimes omitted the second syllable consists of a single vowel only. What this also means is that diphthongs get realized as two distinct vowels belonging to two successive syllables instead of forming the nucleus of a single syllable as is the case in English. There were however a few examples where diphthongs are realized as single vowels in the borrowed words.

(20) Diphthongs realized as single/simple vowels in the Kalanga borrowed words

English Words	Kalanga adapted forms
gate / geɪt/	gédè
council /kaʊnsl/	khánsélè

The foregoing examples demonstrate that when Kalanga phonologizes English words, the vowel quality and the syllabic structures of these words change. The Kalanga language brings the vowels closer to the features of its 5 vowels and the complex English syllabic clusters to its CV syllable structure (cf. Chebanne et al., 1995). The above vocalic changes can be summarized as follows:

(21) Vowel simplification in Kalanga phonologization of English

- a) /i:, ɪ/ are realized as /i/
- b) /u:, ʊ/ are realized as /u/
- c) /e, ɜ, æ/ are realized as /e/
- d) /ɔ:, ɒ/ are realized as /o/
- e) /ʌ, a, æ, ə/ are realized as /a/

Notice that these realizations collapse different phonemic segments in English into one in Kalanga. The process is tantamount to simplification. The same process is observed with syllabic structures where vowel epenthesis applies to complex syllables to make them CV. Since most of the users of loaned words are learners and or users of English in formal and informal settings, the quality of the pronunciation of English, even in writing, is adversely affected.

7. Tone Patterns in English Loanwords

Another important point related to the phonologization procedure is the assignment of tone to loan words. While English is an intonation language, Kalanga is a tone language. Tone plays an important grammatical (lexical, morphological, syntactic, pragmatic) role in Kalanga. Mathangwane (1996) and Chebanne et al., (1995), note that most words in Kalanga depend on tone for their correct pronunciation. In addition, tone can bring about a difference in meaning between two words which are phonologically identical in Kalanga. Mathangwane (1996) further states that Kalanga is a two tone system including a high and low tone. She identifies the following tonal patterns in Kalanga:

(22) Kalanga lexical tonal patterns

L; H; L-L; H-H; L-H; H-L; L-L-L; L-L-H; L-H-H; H-H H; H-H-L;
 L-H-L; L-L-L-L; L-l.-L-H; T.-L-H-L; L-H-H-L; L-H-H-H; H-H-H-L;
 H-H-L-L; L-L-H-H; H-L-H-L; and L-H-L-H.

From Singabapha's (1998) recordings of words used in the assessment of vowel quality in English loanwords, the same tonal patterns were confirmed. The assignment of tone to words of English origin is done systematically, though it disregards stress and other supra-segmental features associated with English pronunciation (see Singabapha, 1998). However, it is not clear what exactly determines a particular tonal pattern for an English word. The assumption is that these tonal patterns are applied to words intuitively following the nearest pronunciation in English. This approximation is markedly at variance with native English speakers' pronunciation.

The analysis of the data presented above clearly indicates that English loanwords that come into Kalanga assume Kalanga tonal patterns which have already been identified for this language by other researchers. The various lexical items considered show that English loanwords that come into Kalanga undergo phonologization processes that make them conform to Kalanga phonology. There are several phonological processes involved. The resyllabification breaks down English complex syllabic structures by epenthesis a vowel between consecutive consonantal segments. The English closed syllables are opened to conform to the Kalanga CV syllabic structure. English vowels change their quality and adapt to the five vowel system of Kalanga. As a result of this, English vowels are rendered with approximation in Kalanga words of English origin. That is, the quality of the English vowels in loanwords adapts to the nearest Kalanga vowel equivalent.

(23) Changing English vowels to the nearest Kalanga realization

English		Kalanga
/e, æ, ɜ /	→	/e/
/ʌ, a:, æ, ə/	→	/a/
/ɔ:, ɒ/	→	/o/
/i:, ɪ /	→	/i/
/u:, ʊ/	→	/u/

As shown in the examples presented in the discussion, English has long vowels and diphthong vowels in its inventory while Kalanga does

not have this distinction. This means that an English syllable may have as its nucleus a short vowel, a long vowel, a diphthong or a syllabic consonant. However, it is observed that when English loanwords which have either a long vowel or diphthong as a nucleus come into Kalanga, this nucleus may be realized as two vowels whereby a glide is inserted between the two vowels to create an onset for the second vowel as in /tiji/ or /tiyi/ (tea) or it may be realized as two distinct hetero-syllabic vowels between which the second one forms a syllable without an onset as in /tii/.

The vowels inserted to break the consonant clusters are the high vowels /i/ and /u/ in most cases and /a/ and /e/ in fewer cases. The occurrence of these vowels is determined by the type of consonant occurring before it. Thus the back round vowel /u/ or /o/ is inserted after a labial consonant. The /i/ or /e/ vowel is inserted after a non-labial consonant. These rules are wide-spread in Bantu languages. In his examination of nativization rules in Tswana and Swahili, Batibo (1996) observes that the back round vowels occur after labial consonants while the front vowels are inserted after non-labials. There are some few exceptions, however. Where the consonant clusters comprise a nasal plus a voiceless consonant, no vowel insertion takes place to break up the consonant cluster. This is because the Kalanga language has similar combinations of nasal plus consonant in its consonant inventory. Such clusters are acceptable in Kalanga and other Bantu languages.

As has been shown in Chebanne et al. (1995) the Kalanga language has voiced pre-nasalized consonants in its consonant inventory. In phonological nativization these voiceless pre-nasalized consonants are also allowed as they form part of the Kalanga language consonant inventory (cf. Mathangwane, 1996). In order to derive a CV syllable structure word-finally, English loanwords that end in a consonant have a final vowel /a/ attached after the final consonant. In Kalanga as well as in other Bantu languages, infinitive verbs often end with the final vowel “-a”. This is a typical morphological rule; however, it can also apply to loanwords that are nouns coming into Kalanga.

Finally, it has been shown that Kalanga loanwords of English origin adapt to the tonal patterns of Kalanga. In general this study has shown that Kalanga loanwords of English origin undergo different phonologization processes as they adapt to the phonology of Kalanga. This process of phonologization of loanwords from English is rampant

across not just Bantu languages but other African languages as well. For example, Batibo (1996) reports on the phonologization of Tswana and Swahili; Schmied (1991) on Bemba, Zulu, Yoruba and Shona; and Janson and Tsonope (1991) also report on Tswana. Tonal patterns assignment is operated on the acquired lexical items and this makes their pronunciation to conform to the tonal features of Kalanga.

8. Conclusion

The findings in this study cannot be considered conclusive. However, the study has amply demonstrated that words acquired from a language that is also used as an official medium of communication undergo phonologization, an issue which has important implications in the way English is learnt and used in the oral and written media. Borrowing is a contact phenomenon and in Kalanga, it has taken two distinct processes 1) borrowing by non-bilinguals; 2) borrowing by educated speakers who can also do calquing and lexical shifting. Borrowing has enriched the Kalanga lexicon. Borrowed words are essentially nativized through appropriate phonologization strategies. Borrowed nouns are assigned gender/class while verbs adapt to the morphological framework of the language in which they are adopted. Adoption (acquiring foreign words) rather than calquing is the main borrowing strategy. Adaptation occurs first through adoption. As a common linguistic operation, borrowing and subsequent nativization can impact the way English is pronounced and corrective strategies need to be devised by teachers to ensure acquisition of proper English pronunciation.

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