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Re-syllabification and morphophonological nativisation of English loans in Rukwangali

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Abstract
We here examine and discuss the phonological and morphological nativisation of English loan words in Rukwangali. The analysis, couched within the theoretical explications of CV Phonology (Clements & Keyser, 1983) and Distinctive Features Theory (Chomsky and Halle, 1968), argues that Rukwangali evinces a high level of resyllabification of borrowed words – increasing syllable count in the nativised forms. This, we argue, is largely motivated by the desire to preserve the canonical Consonant-Vowel (CV) syllable structure. The historical contact situation between English and Rukwangali in Namibia culminated in a transference of lexical items between the languages. Being one of the most widely used languages of the world, English has developed into the most influential donor of words to other languages such as Rukwangali. Of course, in the Namibian context, because of the close genetic affinities between English and Afrikaans and similarities in lexicon, it is sometimes difficult to locate objectively the donor of some words in Rukwangali. The words were randomly collected from the English Rukwangali dictionary and tested through one of the authors, who is a native Rukwangali speaker and a teacher of Rukwangali for the past 11 years. The infiltration of English and Afrikaans words into the Rukwangali lexical inventory led to the adoption and subsequent nativisation of English words by

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the native Rukwangali speakers. Words from English are then adopted and nativised in Rukwangali, since Rukwangali asserts itself as an independent language that can handle loans on its own. The main focus of this study, therefore, is to try and account for the phonological and morphological behaviour and changes that take place in English words that enter into Rukwangali. Analyzing phonological processes that are employed during nativisation of loan words entails analyzing how Rukwangali speakers handle aspects of English language such as syllabification, diphthongs, triphthongs, cluster consonants, Consonant-Vowel-Consonant (CVC) syllable structure and sounds in repairing unacceptable phonemic sequences in Rukwangali.

Keywords: re-syllabification, Rukwangali, morphophonological nativisation

Introduction

Rukwangali is a Bantu language belonging to the Kavango group of languages spoken in the Kavango region of Namibia. In terms of Guthrie's (1963) classification of Bantu languages, the language belongs to the K33 group. Greenberg (1963) on the other hand classifies it, genetically, in the Niger Congo group. The Kavangos are customarily regarded as comprising of five groups of Bantu speaking peoples, namely, the Vakwangali, the Vambundza (*correctly spelt Vambunza*[4]), the Vashambyu and the Vagciriku (Maho, 1998 p. 37). The term Rukwangali refers to the language whereas its speakers are known as the Vakwangali. In terms of the Namibian national census of 2011, the Rukwangali speakers account for the second-largest linguistic group in Namibia, accounting for about 9% of the national population, after the Oshiwambo speakers who account for approximately 49% of the population (Government of Namibia, 2011)[5]. Like many Bantu languages, the syllable structure of Rukwangali words adheres to the CV canonical structure. Of course, there are some exceptions in some instances and these are often accounted for in lexically borrowed words.

The CV syllable structure of Bantu language generally conditioned by the desire to eliminate onsetless syllables as well as avoiding coda ending syllables (Sabao, 2009: 2013: 2015). This is so because, like in many Bantu languages, Rukwangali does not permit closed syllables. As a result of this, this often generally culminates in the resyllabification of borrowed lexis, a process in most instances resulting in the increase in syllable count in the borrowed word once it is in 'adopted and adapted' (Chimhundu, 2002), in the receiving language. Like many other Bantu languages, the syllables of Rukwangali are basically of the canonical CV form. While there are exceptions and other structures such as the V(CV) do occur but more often than not, they do so word initially. In terms of language in context, Rukwangali nouns largely commence in the vowel /o/, for example /otate/ 'father' and /onane/ 'mother'. This can be argued to be as a result of the existence of the Initial Vowel (IV) which is part of Pronto Bantu and is still existent in many Bantu languages, especially those in the Nguni cluster such as Ndebele, Zulu, Xhosa etc who have the IV in words such as /umunthu/ 'person' and /umnthwana/ 'child' among many others. The unmarked syllable structure/type in Rukwangali is thus CV and all syllables in the language are open. This is also in line with Greenberg's (1963) observation that languages in the Niger Congo group typically evince a clear preference for the CV syllable structure, while not reconstructed, is hypothesized to be traceable back to Proto Niger Congo. Word initial vowels are the only instance in which single vowels can occur as autonomous syllables. The typical syllable structures of the language are as in such forms as those in examples (1a) and (1b) below:

(1a) V (CV) structure

a.wo 'they'

[4] Correction is ours

[5] https://gov.na/languages-spoken

a.pa ‘here’
e.ha.ro ‘love’
u.ru.vi ‘brain’
o.po ‘there’

(1b) CV structure

ta.te ‘father’
na.ne ‘mother’
yi.ta ‘war’
mi.na ‘swallow’
mu.si.si ‘dress’

Like many other Bantu languages, the phonemic inventory of Rukwangali has the basic five vowels /a, e. i. o. u/. There are also no underlying long vowels in the language, and where these occur, they do so because of some morphophonological processes, such as coalescence (Sabao & Nauyoma, 2019). There are also no natural diphthongs or triphthongs in Rukwangali. The vowels of Rukwangali have the distinctive features represented in 2 below:

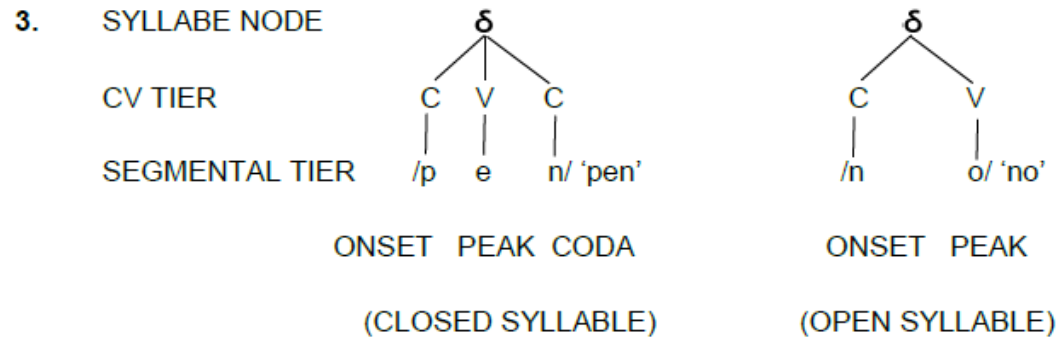
2. Distinctive feature matrix for Rukwangali vowels

	a	**E**	**I**	**o**	**u**
High	-	-	+	-	+
Low	+	-	-	-	-
Back	-	-	-	+	+
Tense	-	+	+	+	+
front	-	+	+	-	-

We here examine how words borrowed from the English language with closed syllables (codas) are ‘modified’ to conform to the Rukwangali phonological system that primarily accepts open syllables. These occasions examining phonological processes such as penultimate vowel epenthesis on closed syllables with codas found on English loans among others. We thus account for the CV structure changes, for instance, from some monosyllabic English structures to polysyllabic Rukwangwali typology. The study is important in that Rukwangali is an understudied language. As Rodgers (1995: 212), opines, languages that are understudied are often thought of as unimportant and consequently die natural deaths. It is envisaged that this morphophonological study will contribute to the documentation of the language and encourage further studies within the language.

The CV Theory

One of the major goals of linguistic enquiry is examining linguistic universals and linguistic variations. Part of studying variations also includes examining differences between languages in both underlying and surface forms – including Preferred Syllable Structure Rules (PSSRs). It considers if languages tolerate particular syllables strictures. Generally, syllables are either OPEN or CLOSED. CV Phonology examines languages via syllable structures based on consonant (C) and vowel (V) composition. The basic syllable is made up of ONSET + NUCLEUS (RHYME) + CODA. The ONSET is the initial consonant(s), the NUCLEUS should be a syllabic vowel while the CODA is the final consonant(s). The structure of the basic syllable is schematically represented in **3** below:



CV Phonology is a theory of syllable structure (Sabao, 2013). As Zivenge (2009) explains, "[t]he CV-tier, an aspect of CV phonology, defines the syllabicity of the onset and marginal elements; hence it captures insightfully the complexities of distinctive features and syllable patterns of words; an important component of this study" (pp. 11-12). The theoretical explications of CV Phonology also provide a structural interpretation of morphophonological changes that occurs between the English and many Bantu language contact environments, "as it regulates the combination of segments, considering 'prominence factor'. It is enlightening and useful for describing syllable behaviour; the major concern of this study" (Zivenge, 2009, p. 12).

In general, the CV syllable structure is the core syllable, which has characteristic features that exist in most language. As Katamba (1989) submits, "no languages have been reported to lack the CV type syllables" (p. 160). Other languages exhibit various syllables structures which are often merely modifications of the CV, and most of which contain the V-element. In line with this, Zivenge (2009) posits, "[a]ll languages have an applicable rule that governs any phonological component. In V-syllable, speakers delete the syllable initial C, allowing canonical syllables with V only" (p. 66). The theory also makes data presentation simpler through the use of the CV rule notation that demonstrates syllabic changes through inputs and outputs. It demonstrates the various patterns for consonant-vowel combinations in syllables, as well as the universal principles that dictate syllable structure or the syllable structure typology.

Rephonologization and re-syllabification of loans in African languages

Rephonologisation or morphophonological nativisation are processes that result from the need to integrate and (re)shape lexically borrowed words to conform to the phonological needs of the borrowing language. Haugen (1970) defines lexical borrowing as "the attempted reproduction in one language, of patterns previously found in another" (p. 432). Nativisation is also defined as "the integration of foreign words into one's native structure" (Hock 1991, p. 390). It (nativisation) is synonymous with what Chimhundu (2002, p. iii) refers to as adoption and adaptation. Numerous studies have been carried out with regards to how African indigenous languages handle loanwords, especially those from the languages of Europe (Chimhundu, 2002; Kadenge, 2003; Mheta & Zivenge, 2008; Zivenge, 2009). A pertinent observed fact is that language contact between European languages and African languages, especially due to colonialism, resulted in European languages dominating the indigenous ones and 'donating' lexical items and other grammatical forms. Perhaps the most seminal of such research is according to Kadenge (2012) who argues that Chimhundu (1983) is arguably conducted "the first systematic investigation of the adaptation and adoption of Shona loanwords from European languages such as Portuguese and English and Bantu languages such as Swahili, Ndebele and Zulu, among others" (p. 57).

Chimhundu (2002), examines the process by which English loans are 'adopted and adapted' in Zimbabwean Shona. Through a process he terms 'Adoption and Adaptation', Chimhundu (2002)

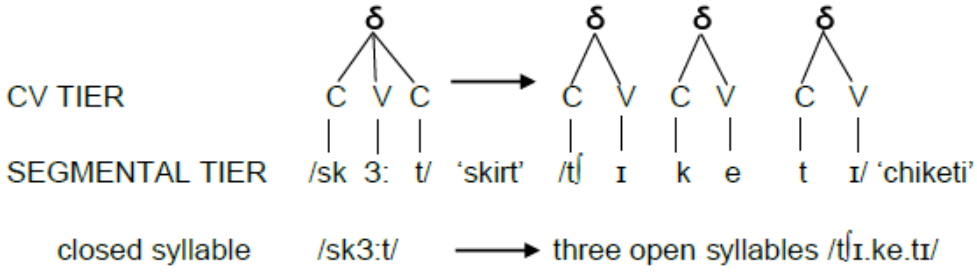
presents evidence of the manners in which English loans have been 'adopted and adapted' in Shona in line with phonetic, orthographic and morpho/phonological requirements of the Shona language. Chimhundu (2002) discusses the treatment of English consonants and vowels through nativisation in Shona, a process that he prefers to call 'adaptation'. He observes that some consonant and vowel sounds and consonant clusters in the English language are not recognized in Shona, and as a result, they are rephonologised so that they become agreeable with Shona linguistic rules, the receiving language. As Kadenge (2012) explains, Chimhundu (1983) "describes the segment substitution patterns and epenthetic processes which are employed to remove consonant clusters, diphthongs and syllable codas."

A major weakness perhaps in Chimhundu's work is that it tends to be more descriptive than theoretical in approach. Kadenge (2012) also observes this when he argues that, "Chimhundu's thesis is purely descriptive" (p. 58), and it lacks theoretical couching especially from modern theories of generative grammar. Zivenge (2009) utilizing both Distinctive Features and CV Phonology Theories discusses rephonologization in Tonga examining among many other pertinent issues including the various ways in which Tonga – which like Rukwangwali a five vowel system – handles the complexity of reducing the twenty English vowels (12 monophthongs and 8 diphthongs) and reduces them into the five Tonga ones. Zivenge (2009) demonstrates that the English language has twenty-five pure vowels and diphthongs added together, whilst Tonga has only five pure vowels. These are monophthongs, diphthongs, triphthongs and pure vowels. The many English vowels, through various processes and because of necessity, were reduced to only five vowels /i,e,a,o,u/ in Tonga. The analysis of the findings shows that vowel substitution was achieved by replacing diphthongs with pure vowels, which share similar feature values with them. Zivenge (2009) also discusses re-syllabification in which in most instances, English loans increase in syllable count in the receiving language largely because of attempts to break up unacceptable stringed/complex consonant onsets (such as CC and CCC) through vowel epenthesis as well as final vowel epenthesis in case of words ending in a coda such as those of the CVC structure because Tonga does not, like many other Bantu language, allow for words to end in codas. Chimhundu's (1983) contribution with regards to this is that vowel epenthesis, in the adoption process from English, results in vowels being inserted to separate CC and CCC sequences in the models because Shona syllables are typical of the open CV type. In the process, English monosyllabic words for example, once nativised, end up being at best, disyllabic and even multisyllabic in the receiving language. Such, Zivenge explains, can be exemplified by Tonga in which for example, a monosyllabic English word 'stool' /stu:l/, converts into a polysyllabic word 'chitulo' /tʃitulo/ when adopted and resyllabified into Tonga. Further examples of the same are in example **4** below:

4. [sk3:t] 'skirt' > [tʃɪketɪ] 'chiketi'
[stæf] 'staff' > [tʃɪtafu] 'chitafu' (Zivenge, 2009, p. 244)
[stɔ] 'store' > [tʃɪtolo] 'chitolo'
[skul] 'school' > [tʃɪkolo] 'chikolo'
[skIl] 'skiil' > [tʃɪkɪlɪ] 'chikili'
[spu:n] 'spoon' > [tʃɪpunu] 'chipunu'
[skeIl] 'scale' > [tʃɪkelo] 'chikelo' (Zivenge, 2009, p. 271)

It is important to note how closed English syllables are dealt with by 'medial' and penultimate vowel epenthesis. Also, it can be observed that complex onsets are handled through glide insertion and vowel epenthesis. These processes then tend to result in an increase in syllable count in the nativised words. Such processes accounted for here in Tonga are also observed in Rukwangali as shall be discussed below. The transformation of English word from being monosyllabic to being multisyllabic is schematically represented in example **5** below:

5.



Observing such a process, for example as Sabao (2009, p. 71) postulates that, in light of the Preferred Syllable Structure Rules and operational in Bantu languages in general and the canonical CV syllable structure, this demonstrates that "a *marked* phonological quality would be that of syllable structures in the [Bantu] language[s] which ***must*** contain vowels as well as should never end in a consonant. Syllables within the language also do not allow certain, given consonant clusters".

In more theoretically grounded analyses of this phenomenon, Kadenge (2012) examines, utilizing Optimality Theory (OT), aspects of the phonology of Shona loanwords from English, focusing specifically on how they are constrained by the Bantu CV syllable structure underlying the receptor language. The focus is on vowel and glide epenthesis which are employed to repair "illegal" complex onsets, syllable codas and diphthongs. Zivenge (2009) observes in the same light that previous studies have utilised the CV phonology model and its explanatory potential to account for syllable re/building processes or resyllabification of English loan in Shona, through processes such as glide epenthesis and vowel epenthesis. Kadenge (2003) adopts the CV theory "to describe the various interferences and transferences of linguistic features between English and Shona speakers. In his discussion of the findings, he establishes that English has twenty vowels that were reduced to five in the Shona language. This was accounted for by the fact that English has diphthongs whilst Shona has only five pure vowels" (Zivenge, 2009, p. 17).

Resyllabification of English loans in Rukwangali

Like most Bantu languages, Rukwangali has also been "affected" by lexical transfers from other languages, especially English and Afrikaans. Words "borrowed" from other languages undergo processes of phonological and phonetic nativisation and this process of rephonologisation results, in most times, in an increase in the syllable count in the borrowed word. As such we observe instances in which monosyllabic words from English become disyllabic and multisyllabic once rephonologised in Rukangali. Disyllabic words borrowed from the English also result in increased syllable count because of the rephonologisation process that ensures that all syllables in the nativised words are open in conformity to the PSSRs operational in Rukwangali and Bantu languages in general that prefer the CV syllable typology.

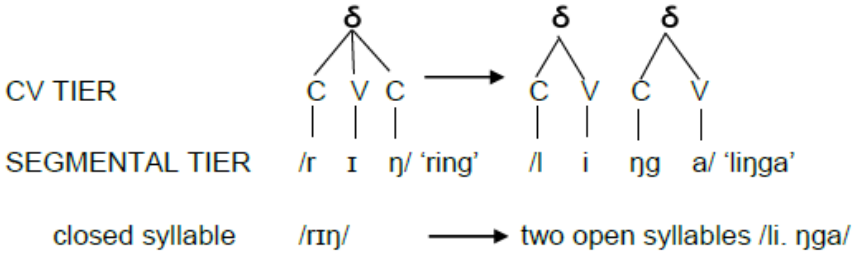
Monosyllabic to disyllabic nativisation of English loans in Rukwangali

Lexical borrowing and phonological nativisation of English loans into Rukwangali is observed in many forms. Primarily, it manifests as monosyllabic to disyllabic, disyllabic to polysyllabic and polysyllabic to polysyllabic nativisation of nativisation of English loans in Rukwangali. Each of these forms ordinarily results in an increase in syllable count in the nativised words. The first of these forms is demonstrated in **6** below:

6.	/bʊk/	'book'	/búke/ 'buke'
	/bʌs/	'bus'	/bésa/ 'besa'

/bed/ ‘bed’	/mbéte/ ‘mbete’
/bæŋk/ ‘bank’	/mbáŋga/ ‘mbanga’
/bɔːl/ ‘ball’	/mbárá/ ‘mbara’
/bɪə(r)/ ‘beer’	/bíra/ ‘bira’
/tʃek/ ‘ cheque’	/tjéka/ ‘tjeka’
/dɑːns/ ‘dance’	/dàna/ ‘dana’
/klʌb/ ‘club’	/klába/ ‘klaba’
/kʌp/ ‘cup’	/ekópi/ ‘ekopi’
/ɪŋk/ ‘ink’	/yíŋka/ ‘yinka’
/pen/ ‘pen’	/pena/ ‘pena’
/pʌmp/ ‘pump’	/pómba/ ‘pomba’
/rɪŋ/ ‘ring’	/liŋga/ ‘linga’
/sent/ ‘cent’	/sendá/ ‘senda’
/tiː/ ‘tea’	/tíye/ ‘tiye’
/maɪn/ ‘mine’	/mína/ ‘mina’

7.

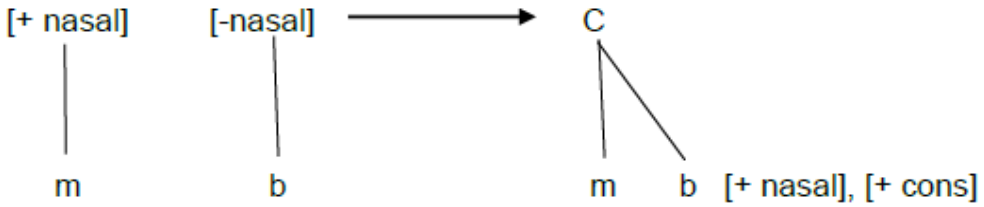


An important observation is that in some cases where borrowed words commence in the bilabial stop [b], but only when the syllabic peak is [e] and [o] (including all other variants of the two vowels) and the resultant nativised forms are nasalised by the prefixation of the bilabial nasal [m] as evidenced by words such words in **8** below:

8.	/bed/ ‘bed’	/mbéte/ ‘mbete’
	/bæŋk/ ‘bank’	/mbáŋga/ ‘mbanga’
	/bɔːl/ ‘ball’	/mbárá/ ‘mbara’

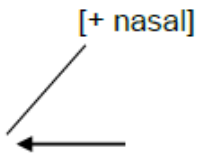
This creates composite consonants which are not present in the original English forms. Such composite consonants (complex consonants) thus have contradicting features. The nasalisation of the resultant nativised words is demonstrated in **9** below:

9.



In the above example, [m] has [+nasal], whilst [b] has [-nasal]. However, assimilation [mb] makes [b] assume a nasal feature as shown in **10** below:

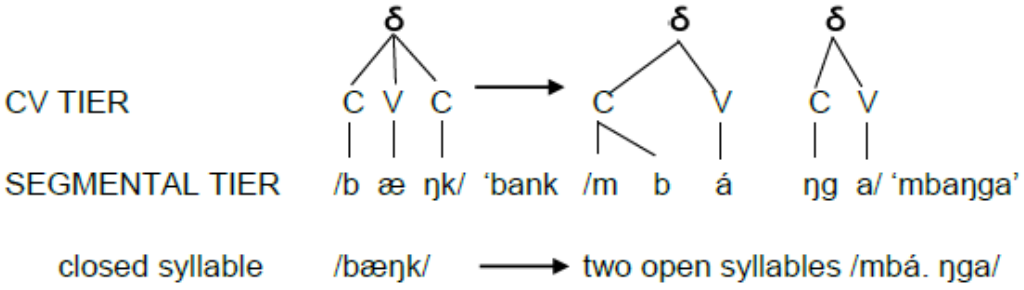
10.



(Zivenge, 2009, p. 46)

Furthermore, there is penultimate vowel insertion in the resultant nativised words – eliminating the closed syllable and resulting in an increase in syllable count as demonstrated in **11** below.

11.

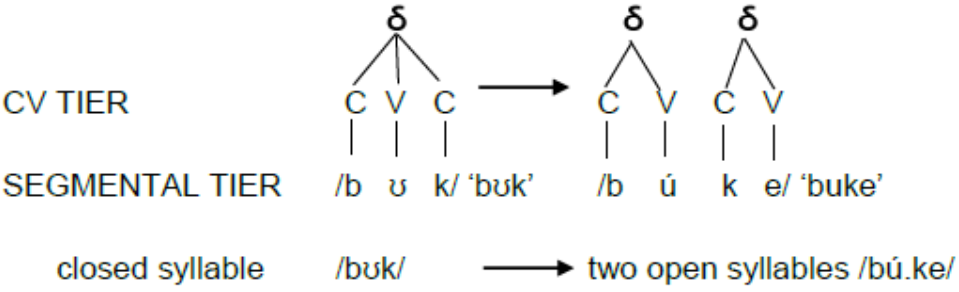


The same process however does not occur in cases in which the bilabial plosive in the original English loans are followed by the syllabic nuclei [a], [i] and [u] (and all their variants as well diphthongs) as exemplified in **12** below:

12. /bʊk/ 'book' /búke/ 'buke'
/bʌs/ 'bus' /bésa/ 'besa'
/bɪə(r)/ 'beer' /bíra/ 'bira'

In such contexts as demonstrated above, there is no prenasalisation of the onset consonant in the nativised form of the loanword. In fact, what only transpires is penultimate vowel epenthesis that results in an increase in syllable count from monosyllabic to disyllabic as demonstrated in **13** below:

13.



Monosyllabic to polysyllabic nativisation of English loans in Rukwangali

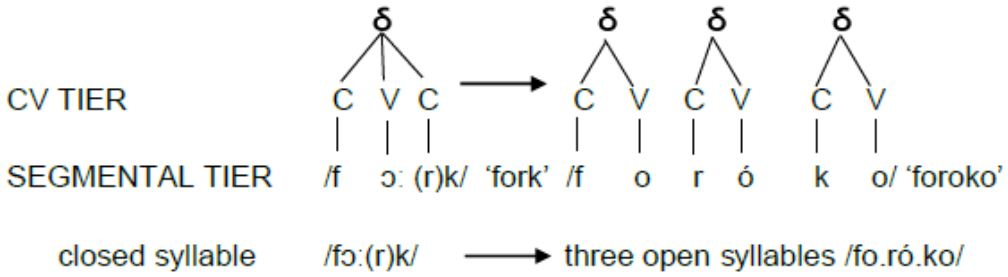
The second observed form of nativisation of English loans in Rukwangali transforms monosyllabic loans to polysyllabic nativised forms as demonstrated in **14** below:

14. /fɔː(r)k/ 'fork' /fóróko/ 'foroko'

/hɑːf/ ‘half’	/harufà/ ‘harufa’
/drʌm/ ‘drum’	/ndóróma/ ‘ndoroma’
/bred/ ‘bread’	/mbóroto/ ‘mboroto’
/maɪl/ ‘mile’	/májira/ ‘maira’
/kɑː(r)d/ ‘card’	/sìkàrata/ ‘sikarata’
/kəʊm/ ‘comb’	/sìkámuré/ ‘sikamure’
/gəʊld/ ‘gold’	/ngórodo/ ‘ngorodo’
/greɪd/ ‘grade’	/háradé/ ‘harade’
/spaɪs/ ‘spice’	/sipayísi/ ‘sipayisi’

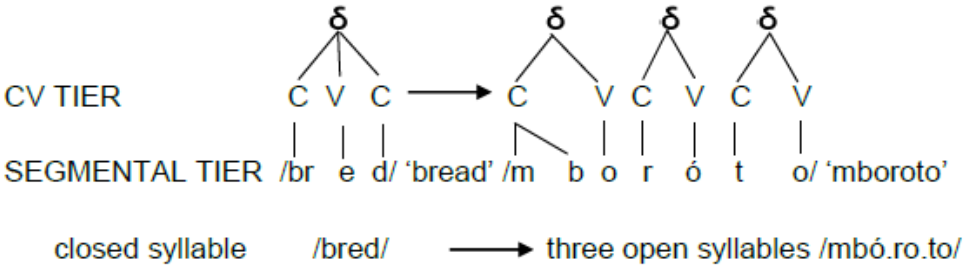
Again, this is a process that results in an increase in syllable count in the nativised forms the borrowing language (Rukwangali) because of attempts to conform to the CV PSSRs through word internal and penultimate vowel epenthesis as demonstrated in **15**.

15.



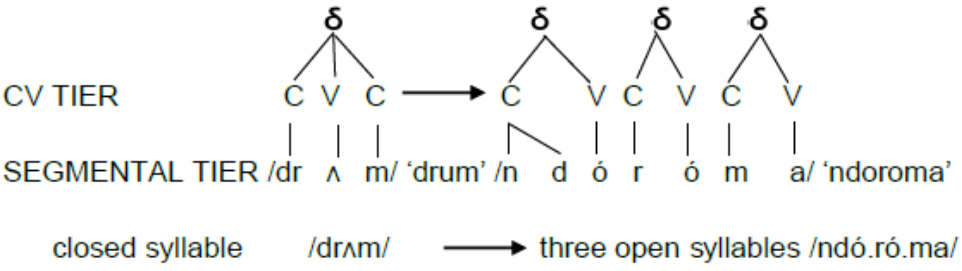
There is also evidence of nasalisation of stop onsets in the resultant nativised forms when such onsets in the input are complex and precede [r] as in **16**:

16.



The same also applies when the complex onset is constituted of the alveolar stop [d] and [r] as in **17** below:

17.

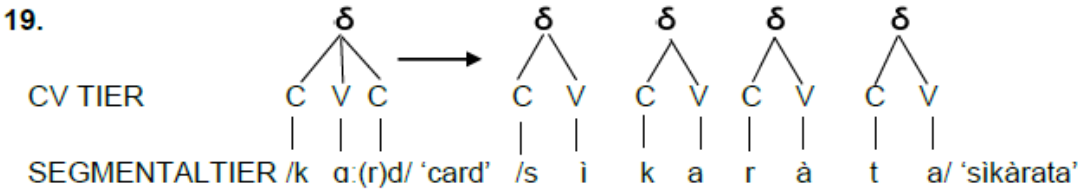


A further observation is that when confronted with voiceless velar stop [k] commencing English concrete nouns, Rukwangali prefixes them with the singular prefix /si/ ‘a’ as demonstrated in **18** below:

18.	/kɑː(r)d/ ‘card’	/sìkàrata/ ‘sikarata’
	/kəʊm/ ‘comb’	/sìkámuré/ ‘sikamure’

This is represented through the CV structure as follows:

19.



closed syllable / kɑː(r)d / ⟶ four open syllables / sì.kà.ra.ta/

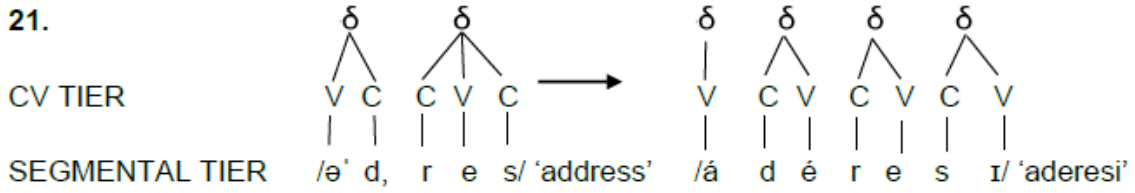
Disyllabic to polysyllabic nativisation of English loans in Rukwangali

The third observed form of phonological nativisation of English loans in Rukwangali is the one that results in disyllabic English loan words transforming to polysyllabic words in Rukwangali. Again, as is the case with other forms of nativisation, this results in an increase in syllable count which largely results from word medial vowel epenthesis (to break up complex onsets and eliminate closed syllables) as well as penultimate vowel epenthesis (to eliminate closed syllables). This can be observed in **20** below:

20.	/əˈd,res/ ‘address’	/ádéresi/ ‘aderesi’
	/bəˈ.luːn/ ‘balloon’	/bárona/ ‘barona’
	/ˈbæt.(ə)ri/ ‘battery’	/batilì/ ‘batili’
	/tʃɪp.s/ ‘chips’	/tjépúsi/ ‘tjepusi/
	/ˈkrɪs.tʃən/ ‘christian’	/mukilísité/ ‘mukilisite’
	/ˈdɒŋ.ki/ ‘donkey’	/sìndoŋgi/ ‘sindongi’
	/ˈdɒk.tə(r)/ ‘doctor’	/ndókótora/ ‘ndokotora’
	/ˈen.dʒɪn/ ‘engine’	/indʒina/ ‘indjina’
	/ˈfæk.tri/ ‘factory’	/fabílika/ ‘fabilika’
	/ˈhæ.mə(r)/ ‘hammer’	/hamarà/ ‘hamara’
	/həʊˈ.tel/ ‘hotel’	/hotera/ ‘hotera’
	/ˈkrɪs.məs/ ‘christmas’	/kílikímisa/ ‘kilikimisa’
	/ˈkɒ.fi/ ‘coffee’	/kofiβa/ ‘kofiva’
	/ˈkæ.m(ə)l/ ‘camel’	/ngámeru/ ‘ngameru’
	/ˈklaɪ.mət/ ‘climate’	/kilimata/ ‘kilimata’
	/ˈkɒ.mə/ ‘comma’	/síkomona/ ‘sikomona’
	/ˈkɒn.dɒm/ ‘condom’	/kondómu/ ‘kondomu’
	/ˈmæ.trəs/ ‘mattress’	/etarasé/ ‘etarase’
	/məˈ.trɪk/ ‘matric’	/matilika/ ‘matilika’
	/məˈ.ʃiːn/ ‘machine’	/mahina/ ‘mahina’
	/pəˈ.liːs/ ‘police’	/muporòsi/ ‘muporosi’
	/ˈsɪl.və(r)/ ‘silver’	/siliβeli/ ‘siliveli’
	/ˈtræk,tə(r)/ ‘tractor’	/eteré/ ‘etere’
	/ˈteɪ.b(ə)l/ ‘table’	/sitafùra/ ‘sitafura’

The resultant increase in syllable in nativised words in Rukwangali due to vowel epenthesis as exemplified above can be demonstrated as in **21** below:

21.



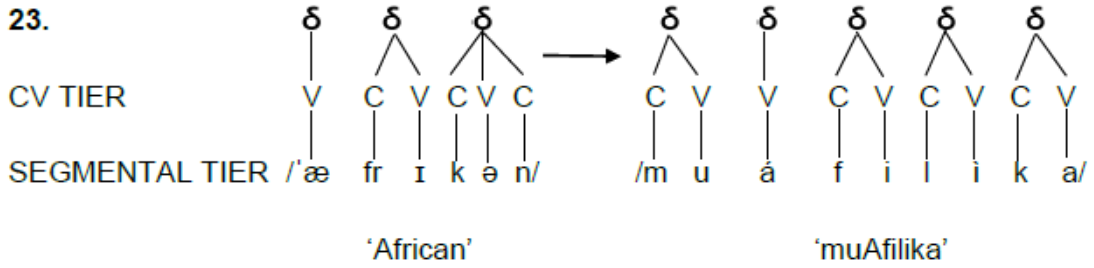
two closed syllables / əˈd,.res/ ⟶ four open syllables /á.dé.re.sɪ/

Another important observation in the rephonologization process in Rukwangali is the manner in which, for human nouns, nativised forms are prefixed with the noun class one prefix /mu/ as demonstrated by some examples extracted from **22** and another example from **24** below:

22.	/ˈkrɪs.tʃən/ 'christian'	/mukilísité/ 'mukilisite'
	/pəˈ.liːs/ 'police'	/muporòsi/ 'muporosi'
	/ˈæfrɪkən/ 'African'	/muáfilìka/ 'muAfilika'

And again this prefixation with the class 1 noun prefix for people results inevitably in the increase in syllable count in the native words. Further increases in in syllable in the nativised forms of the words are also as a result of penultimate vowel epenthesis aimed at eliminating closed syllables. This is demonstrated in **23** below:

23.



two open and one closed syllables /ˈæ.frɪ.kən/ five open syllables /muáfilika/

Polysyllabic to polysyllabic nativisation of English loans in Rukwangali

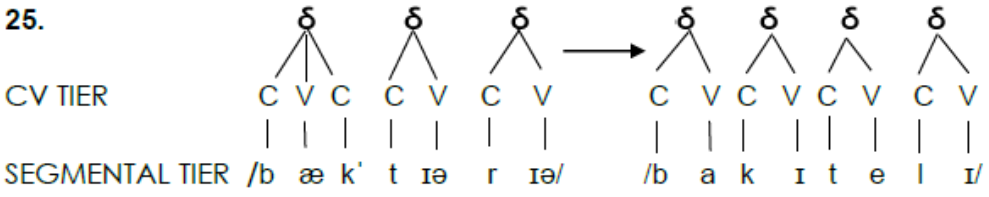
The last form of phonological nativisation that we discuss for Rukwangali is one which happens when polysyllabic English words are adopted into Rukwangali as polysyllabic words. And again, there is an observed increase in syllable count in the nativised words. This again results from word medial vowel epenthesis (which also attempts to break up complex onsets) and penultimate vowel epenthesis (which attempts to eliminate closed syllables as can be observed in **24** below:

24.	/ˈælfəˌbet/ 'alphabet'	/alfabeti/ 'alfabeti'
	/æmbjʊləns/ 'ambulance'	/ambúlànsa/ 'ambulansa'
	/ˈæfrɪkən/ 'African'	/muáfilìka/ 'muAfilika'
	/ˌæntibaɪˈɒtɪk/ 'antibiotic'	/antibijotí'ka/ 'antibiyotika'

/bækˈtɪərɪə/ ‘bacteria ’	/bakiteli/ ‘bakiteli’
/dɪˈpɒzɪt/ ‘deposit’	/depositó/ ‘deposito’
/gɪˈtɑː(r)/ ‘guitar’	/sikitára/ ‘sikitara’
/ˈɪntə(r) net/ ‘internet’	/intaneti/ ‘intaneti’
/ˈmɪljən/ ‘million’	/milijuna/ ‘miliyuna’
/ˈtelɪˌfəʊn/ ‘telephone’	/terefona/ ‘terefona’

This form of phonological nativisation with resultant increase in syllable count in the nativised word is demonstrated in **25** below:

25.



A further observation in rephonologization in Rukwangali is that of instances in which it sometimes fail to eliminate codas from some syllables and thus nativises words with closed syllables as exemplified by the example in **26** below:

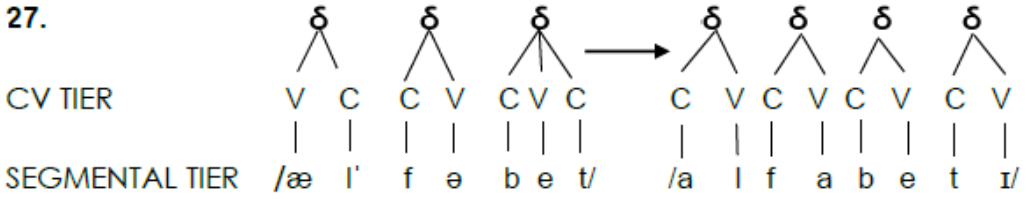
25. /ˈælfəˌbet/ ‘alphabet’ /alfabeti/ ‘alfabeti’

In the above example we can observe that the nativised word in Rukwangali still contains a closed syllable - /al/ as demonstrated in the parsing of the word’s syllables in **26** below:

26. /ˈæl.fə.bet/ ‘alphabet’ /al.fa.be.ti/ ‘alfabeti’

The cause for the adoption of the closed syllable is not easily explainable in this context, as one would have imagined that because of the CV PSSRs there would have at least been vowel epenthesis like /a.lu.fa.be.ti/ to eliminate the coda. The adoption of the closed syllable is demonstrated in **27** below:

27.



two closed and one open syllables /ˈæl.fə.bet/ →three open and one closed syllables /

/al.fa.be.ti/

The contexts in which closed syllables are not rephonologised in Rukwangali through vowel epenthesis are a good area for further research.

Conclusion

This study has observed that English loan words are nativised at various levels and through various processes in Rukwangali. Phonological nativisation in Rukwangali evinces instances which include the handling of English diphthongs by Rukwangali's five pure vowels, as well as that of consonant clusters (complex onsets and codas) and other English sounds not acceptable in Rukwangali. Rukwangali native speakers inserted the glide [w] and [j] to break diphthongs since they are not accepted in Rukwangali. In contexts and environments in which glide epenthesis was not applicable, diphthongs were substituted by pure vowels. The substitution process was not random, but systematic in that the replacement vowels in Rukwangali similar feature configurations with the diphthong substituted. This was done to maintain articulatory identity. We further observe that Rukwangali does not generally tolerate consonant clusters and as such, rephonogisation processes resulted in the insertion of vowels in between the consonant cluster – whether such clusters occurred word initially, word medially or word finally - thereby resulting in an increase in syllable count in the nativised words and at the same time eliminating the dispreferred consonant clusters. The compounded result was not only the elimination of consonant clusters, but also the opening of English closed syllables in conformity with the CV PSSRs preferred in Rukwangali.

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