

## Phonological Aspects of Loanword Adaptation in Kinyarwanda

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**Abstract:** Kinyarwanda, like many other languages in contact, has adapted foreign words to meet the needs of its daily life vocabulary and activity. In addition to the lexical need filling, Kinyarwanda borrowed from other languages not only out of need for foreign words but also for the mere prestige of using foreign words.

This research focuses on the sifting of phonological foreign segments of loanwords into Kinyarwanda.

The findings show that Kinyarwanda is not an isolated case in a language contact. The weaker speaker borrows from the stronger, and the borrowed words are allocated to specific areas. The recipient language adapts and nativizes foreign elements from the donor languages in its own language system.

The data were collected from various sources, including publications, daily conversation, newspapers, Bible literature, school text books, commercial posters, hoardings. The database of the work was compiled without any comprehensive dictionary which may give detailed information on loanwords.

The study analyses some loanwords from French and English words in a bilingual context. It is a challenging task for other researchers who will have to deal with the complexity of the phonological adaptation loanwords into a borrowing language.

**Keywords:** loanword, adaptation, English, French, Kinyarwanda, phonological aspects

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### Background

Of the five disciplines (i.e. morphology, syntax, semantics, phonetics, phonology) of microlinguistics, versus macro linguistics ( i.e.: sociolinguistics, neurolinguistics and psycholinguistics), the most exploited one in loanword adaptation is phonology in order to study how and why some phonological segments are lost, while others are preserved (Paradis, 1997). Loanword sounds may be adapted in altering source sounds, inserting new ones, assimilating the sounds to source sounds, deleting sounds or reduplicating the sounds. As previously discussed in the loanword theories, the brain acts as a phonological sieve. It sifts the sounds and keeps those which are familiar or almost similar to the pre-existing ones. It rejects those which are unusual. In order to examine the aspects of phonology involved in our study, we need to have a phonological comparative picture of French and English speech sounds to see how they match with Kinyarwanda phonology.

### Can a New Form of English Arise from Mispronunciation?

Varieties of languages very often result from the non-conformity to the standard pronunciation of the language. Although mistakes are part of a learning process, they simply reveal a deviation from the standard language. Due to various forms of English worldwide in general, and nationwide in particular, the English spoken in Rwanda reflects interferences or language transfers from East African English, West African/Nigerian English, Indian English, American English, South African English, French, Kinyarwanda. In addition to mistakes due to French and Kinyarwanda interference, varieties of English are also responsible for the mistakes which are very often made. Most mistakes occur in the area of phonology, orthography, syntax, and semantics. Because of the phonological perception and production, some mispronounced English words have become integrated loanwords in Kinyarwanda.

Usually new forms of English presents the features below:

- Language transfer
- Consonant Cluster Reduction and Epenthesis
- Velarized /l/ dropping
- Monophthongization

- Realization of /θ/ and /ð/ as /t,f,s/ and /d,v,z/
- R-lessness
- Vowel Lowering
- Stress misplacement

### Language Transfer

In general English mispronunciation results from three possible sources of language transfers: French, Kinyarwanda and East African English variety. A non-native Rwandan speaker of French speaking background will display some mispronunciation mistakes resulting from the interference of French sounds and stress while speaking English, e.g., identify [id̃i'tɪfai] for [aɪ'dentɪfaɪ], principle [ˈprɛ̃sɪpɔ] for ['prɪnsɪpəl], justify [ˈɛ̃astɪ'fai] for ['dʒʌstɪfaɪ]. The mother tongue, e.g. Kinyarwanda language sounds, interferes with English speech sounds: [ɔvu] for [əv], [endi] for [ænd], [sigisi] for ['sɪks], [bitkwin] for [bɪ'twi:n]. A final vowel is added to a word to adapt a foreign word pronunciation to the phonological system of the mother tongue. As for the variety of English from East Africa (Kenya, Uganda, Tanzania), one may hear words such as either, imagine, George, firm, person mispronounced [ejɪðə], [ɪmæʒiːn], [gʒɔʒje], [fam], [pason], respectively, instead of ['aɪðə], [ɪ'mɑːdʒɪn], [ˈdʒɔːdʒ], [ˈfɜːm], [ˈpɜːsən].

### Consonant Cluster Reduction and Epenthesis

This is the case whereby the epenthetic vowel is inserted between the consonant cluster /sp/ in order to break the difficulty of pronouncing consonant cluster sounds. In this instance, a final vowel is always added to follow the syllabic structure of Kinyarwanda of VCV (Vowel-Consonant-Vowel), e.g. [sɪpɪrɪtɪ] for ['spɪrɪt]. Some English sounds may be changed by non-native speakers to fit their phonological system, e.g. instead of saying ['aɪðə], ['kwɛstʃən], [ɪ'mɑːdʒɪn], [ˈdʒɔːdʒ], [ˈfɜːm], [ˈpɜːsən] for either, question, imagine, George, firm, person, a non-native speaker may say [ejɪðə], [kwɛʃɔni], [ɪmæʒiːn], [gʒɔʒje], [fam], [pason], respectively.

### Velarized /l/ Drop out

A final [ɔ] is heard in words ending in a velarised alveolar lateral approximant, also known as "dark l", which is very often dropped, e.g. political [politiko], able [ejibo], normal [nomo], [kritiko] for [pə'ltɪkəl], able [eɪbəl], normal [ˈnɔːmə], [ˈkrɪtɪkəl]

### Monophthongization

The phonological phenomenon of monophthongization is also attested in the form of English which is rising in Rwanda, e.g. paper [pepa], later [leta], take [tek], go [go], coat [kote], [ˈeda] for [peɪpə], [leɪtə], take [teɪk], [gəu], [kəʊt], [ˈeɪðə]/[iːðə].

### Realization of /θ/ and /ð/ as /t,f,s/ and /d,v,z/

With having the sounds /θ/ and /ð/ are realized as /t,f,s/ and /d,v,z/ by some non-native speakers of English. For example, the pronunciation of the words, thank, something, faith, there, another, with, /θæŋk/, /sʌmθɪŋ/, /feɪθ/, /ðeə/, /ə'neɪðə/, /wɪð/ respectively, will likely be realized /teŋk/ or seŋk/ feŋk/ , /samsɪŋ/, /feɪtse/, /deja /, /e'nada/ or /enava/, /wizi/.

Consequently, in the long run the above mispronunciation mistakes may result in the formation of another variety of English. Varieties of languages very often result from the non-conformity to the original language because of the deviation from the pronunciation pattern of the standard language. Due to various forms of English worldwide in general, and nationwide in particular, the English spoken in Rwanda reflects interference from East African English, West African/Nigerian English, Indian English, American English, South African English, French, Kinyarwanda. In addition to mistakes due to French and Kinyarwanda interference, varieties of English are also responsible for the mistakes which are very often made. Most mistakes occur in the area of phonology, orthography, syntax, and semantics. Because of the phonological perception and production, some mispronounced English words have become integrated loanwords in Kinyarwanda.

**Account of Kinyarwanda Phonology**

• **Vowels**

/a/: amanota (grades)

/e/: gutegeka (to rule)

/i/: ifi (a fish)

/o/: isoko ( a market)

/u/: urubura (hail)

• **Consonants**

**Classification of Consonants according to the place of articulation and the mode of production**

	<b>Bilabial</b>	<b>Labiodental</b>	<b>Palato-alveolar</b>	<b>Palatal</b>	<b>Velar</b>
Plosive	p		t d		k g
Fricative	ɸ	f v	s z	ʃ ʒ	h
Affricate		pf	ts	tʃ	
Nasal	m		n	ɲ	ŋ
Aproximant			r	j	w

**Consonants in detail**

**Plosives**

1. The voiceless bilabial plosive /p/.

The Kinyarwanda /p/ is not as aspirated as the French /p/ or the English /p/, especially because it does not occur in initial position. In the middle position, /p/ occurs between vowels and the aspiration is weak. /p/ is slightly aspirated. It only makes very little noise and lengthens the vowel before it. It is never found in final position.

Interestingly enough, /p/ is the only foreign sound borrowed from foreign languages. /p/ might not have initially existed in the Kinyarwanda sound system. The reflex of Proto-Bantu \*/p/ in Kinyarwanda is the bilabial voiced fricative /β/. Currently /p/ is attested in loanwords only.

**Examples:**

<b>Loanword</b>	<b>Source word</b>	<b>English</b>
<i>gupakira</i>	<i>pack</i>	to pack, to load
<i>ipanu</i>	<i>pan</i>	frying pan
<i>ipapayi</i>	<i>papaye</i>	papaya
<i>iparadizo</i>	<i>paradis</i>	paradise
<i>ipasi</i>	<i>fer à repasser</i>	iron
<i>ipasiporo</i>	<i>passeport</i>	passport
<i>ipeyizana</i>	<i>paysanat</i>	settlement
<i>ipiki</i>	<i>pick</i>	pick
<i>ipikipiki</i>	<i>motocyclette</i>	motorcycle
<i>iporogaramu</i>	<i>programme</i>	programme
<i>iposho</i>	<i>poche</i>	weekly ration
<i>umupadiri</i>	<i>padre</i>	Catholic priest
<i>umupagani</i>	<i>paganus</i>	pagan
<i>umupolisi</i>	<i>police</i>	policeman
<i>urupapuro</i>	<i>papier</i>	paper

2. The voiceless and voiced alveo-dental plosives /t/ and /d/.

Unlike the English language, these sounds are pronounced by putting the tip of the tongue against the teeth, just near the alveolar ridge. They are like the French /t/ and /d/.

3. The voiceless and voiced velar plosives /k/ and /g/.

They are pronounced like the French and English /k g/. However, they only occur in middle position, except in infinitives, where /g/ precedes the vowel /u/ if the root begins with a voiceless plosive, fricative, or

affricate, e.g. *gu-kund-a* (to love), *gu-pim-a* (to measure), *gu-fash-a* (to help), *gu-c-a* (to cut), and /k/ precedes /u/ if the verbal root begins with a voiced plosive and fricative, e.g. *ku-gur-a*: to buy; *ku-rir-a*: to weep

### Affricates

The voiceless palatal affricate /tʃ/ occurs in the middle position. It is the sound of the letter “c”, spelt in words such as *umuco* (culture), *icupa* (bottle), *amacandwe* (saliva), *umuceli* (rice), etc. The English affricate /dʒ/ does not exist in Kinyarwanda.

### Fricatives

The Kinyarwanda fricatives are: /β/, /f/, /s/, /ʃ/, /v/, /z/, /ʒ/

1. The French and English /b/ sound as such does not exist in Kinyarwanda. Its substitute is the voiced bilabial fricative /β/. The voiced bilabial fricative /β/ generally occurs in middle position like other consonants. When it is pronounced the two lips are slightly brought against each other, letting the air escape from the oral cavity with a little friction in the lips, e.g. *ibaba* /iβaβa/ (a feather), *amababa* /amaβaβa/: feathers

The sound /b/ in French and English loanwords will adapt to the Kinyarwanda bilabial fricative so as to fit the characteristics of /β/.

### Examples:

Loanword	Source	English
<i>ibarua</i> /iβaruwa/	<i>barua</i> (Sw)	letter
<i>umuboyi</i> /umuβoji/	boy	houseboy, cook
<i>umubiligi</i> /umuβirigji/	<i>belge</i>	Belgian
<i>ibutike</i> /iβutike/	<i>boutique</i>	shop
<i>ibanki</i> /iβanki/	<i>banque</i>	bank
<i>iborodero</i> /iβorodero/	<i>bordereau</i>	bank deposit slip
<i>ibilete</i> /iβirete/	<i>bulletin</i>	school transcript
<i>ibiro</i> /iβiro/	<i>bureau</i>	office
<i>iburuse</i> /iβuruse/	<i>bourse</i>	scholarship, bursary
<i>iburuze</i> /iβuruze/	<i>blouse</i>	blouse
<i>ibande</i> /iβande/	<i>bande</i>	tape
<i>itabuliye</i> /itaβurije/	<i>tablier</i>	apron
<i>akabati</i> /akaβati/	<i>cupboard</i>	cupboard, wardrobe, sideboard

2. The voiceless and voiced labiodental fricatives /f/ and /v/.

They are pronounced like the French and the English labiodentals /f/ and /v/, and occur in middle position.

3. The English voiceless and voiced interdental fricatives /θ/ and /ð/ do not exist in Kinyarwanda. Thus, English learners may mispronounce words such as thank, bath, father, mother, brother, etc. /θ/ is very likely to be pronounced as /t/, /s/, /f/, and /ð/as /d/, /z/, /v/, unless they are fast learners and well trained.

4. The voiceless and voiced alveolar fricatives /s/ and /z/. They occur in middle position, except with commands, where they occur in initial position.

*isaha* /isaha/: watch

*amazinda* /amazinda/: forgetfulness

*zana* /zana/: bring

*uburoso* /uburoso/: brush

*soma* /soma/: read

*seka* /seka/: laugh

5. The voiceless and voiced palatals /ʃ/ and /ʒ/. They are attested in English, French and Kinyarwanda. In Kinyarwanda they occur in words such as:

*gufasha* /gufaʃa/: to help

*ishashi* /iʃaʃi/: heifer

*umushonge* /umuʃongje/: syrup

*ijambo* /iʒambo/: word

*ijisho* /iʒiʃo/: eye

6. The English aspirated fricative /h/ sound is differently uttered in Kinyarwanda. In Kinyarwanda it is partially aspirated; it always appears in middle position. In French it simply exists in its orthographic form and not phonologically silent.

#### Examples:

##### English:

house /haus/, /hauz/

hen /hen/

hesitate /<sup>h</sup>heziteit/

##### Kinyarwanda:

*ihaho* /ihaho/: provision

*guhobera* /guhoβera/: to hug

*ihene* /ihene/: goat

#### Nasals

1. The bilabial nasal /m/ is pronounced like the English and French /m/, e.g. *Imana* /imana/: God, *urumuri* /urumuri/: flame, *umuti* /umuti/: medicine.
2. The alveolar nasal /n/ is pronounced like the English and French /n/, e.g. *inuma* /inuma/: dove, *ino* /ino/: toe, *umuhini* /umuhini/: a hoe stick, etc.
3. The Kinyarwanda and the French palatal nasal /ɲ/ does not exist in English, e.g. Kinyarwanda: *inyanya* /iɲaɲa/ (tomatoes), *inyoni* /iɲoni/ (bird), *nyina* /ɲina/: his/her mother; French: *signer* /siɲe/: to sign, *igname* /iɲam/: yam.
4. The presence of the positional variant /ŋ/ in Kinyarwanda occurs between /n/ and /w/, or /ɲ/ and /w/, and after /m/. Thus, we have the following situation.

/κ/ → /ŋ/ ~ /n/, /ɲ/ ~ /w/

*ubwanwa* /uβganɲwa/: beard

*umunwa* /umunɲwa/: mouth

*amanywa* /amaɲɲwa/: midday

/κ/ → /ŋ/ ~ /m-

*umwana* /umwɲana/: child

*umwanya* /umwɲaɲa/: moment, opportunity

*umwami* /umwɲami/: king

#### Approximants

[r] and [ʀ] are allophones of the same phoneme /r/. According to spelling rules set up by the Ministry of Education the letter “r” will only be used in proper nouns denoting people and places where it was used previously and words of foreign origins which are not yet integrated”, e.g.: *Kamali*, *Kigali*, *Angola*, *telefoni*, *kalendari*, *televiziyo*, etc.

/j/: *uruyongoyongo* /urujongojongo/: a stork

/w/: *iwacu* /iwatʃu/: home

#### Notes:

The Kinyarwanda glides /w/ and /j/ are pronounced like the English and French glides.

1. /w/ is spelt **w** and occurs in pronouns and adjectives in the middle position (*uwawe*: yours; *iwawe*: at your house). When it occurs in nouns, it may or not be pronounced. It is silent in the context where it is preceded by /β/ and /m/, and pronounced where it is preceded by /k/, /g/, and /ŋ/:

/w/ → /κ/ ~ /β/, /m/-

*ubwoba* /uβgoβa/: fear

*ubwuru* /uβguru/: mystery

*ubwato* /uβgato/: canoe, boat, ship

*umwana* /umɲana/: child

*limwe* /rimɲe/: one

/w/ → /w/ ~ /k/, /g/, /ŋ/-

*umutwe* /umutkwe/

*ugutwi* /ugutkwi/

*ruswa* /ruskwa/

*Rwanda* /rgwanda/: Rwanda

*ubwanwa* /uβganɲwa/: beard

*umunwa* /umunɲwa/

2. /j/ is spelt **y**. In general it occurs in pronouns and adjectives in the initial position, e.g. *yose* (all), *yanjye* (mine). In nouns and verbs it occurs in the middle position:

*uruyongoyongo* /uruɲongoɲongo/: stork

*urubyiruko* /uruβjiruko/: youth

*umweyo* /umɲeɲo/: broom

*kwiyoroshya* /kwijoroɲa/: to humble oneself

*kwayura* /kwajura/: to yawn

*kuyoboka* /kujoβoka/: to follow

### Adaptation of French Loanwords

Like many other languages which borrowed from French, Kinyarwanda has been a language of great interest in the area of phonology, particularly with regard to loanword adaptation. Speaking of phonological changes of loanwords resulting from language contact, Trudgill (2001) comments:

Paradis and LaCharité (1997) studied 545 French loan words in Fula spoken in Mauritania and Senegal, countries that have been influenced by French for more than a century since initial French colonization. They found that the loan words were introduced by bilinguals of varying degrees of bilingualism, who adapted the foreign phonological sequences, according to what they call “repair strategies”. In Fula, these include breaking up French consonant clusters by either cluster simplification or vowel insertion, and the denasalisation of French nasal vowels. Trudgill (1997:9) found similar patterns in French loans in Moroccan Arabic and Kinyarwanda, and English loans in Quebec French.

From the above point of view, in general, there is the breaking up of French consonant clusters by cluster simplification or vowel insertion, and the denasalisation of nasal vowels in French loanwords.

#### • Vowels:

The following vowels are very likely to change as follows:

/ø/ → /e/

*milieu* /miljø/ → *imiliye* /milije/ milieu, place

*feuille* /føj/ → *ifeye* /ifeje/ sheet of paper

*fauteuil* /fotøj/ → *ifoteye* /foteje/ arm-chair

/ə/ → /o/

*degré* /dægRe/ → *dogere* /dogere/ degree

*demande* /dəmãd/ → *domande* /domande/ request, application

*devise* /dovize/ → *devise* currency

*mouvement* /muvmã/ → *muvoma* /muvoma/ movement

*parlement* /paRlɔmã/ → *pariloma* /pariroma/ parliament

versement /vɛʀsəmɑ̃/ → verisoma /verisoma/ bank deposit

/œ/ → /e/

fraudeur /fʀodœ:R/ → (umu)foroderi /foroderi/ smuggler  
 ma soeur /masœ:R/ → (umu)masere /masere/ my sister (nun)  
 moteur /mɔ̃tœ:R/ → imoteri /moteri/ engine

/ɛ/ → /e/

capitaine /kapitɛn/ → kapitene /kapitene/ captain  
 douzaine /duzɛn/ → iduzene /iduzene/ dozen  
 dizaine /dizɛn/ → idizene /idizene/ tenth

/y/ □ /i/ or /u/

substitut /sypstity/ → subusititi /suβusititi/ deputy prosecutor  
 bus /bys/ → ibisi /iβisi/ bus  
 bureau /byʀo/ → ibiro /iβiro/ office

/ɔ/ □ /o/

pomme /pɔm/ → pome /pome/ apple  
 avocat /avɔka/ → avoka /avoka/ avocado, lawyer  
 bordereau /bɔʀdɛro/ → iborodero /iβorudero/ eau

/ɑ/ □ /a/

fer à repasser /fɛʀaʀɛpɑsɛ/ → ipasi iron  
 passeport /pɑspɔʀ/ → ipasiporo passport

A glide is very often preceded by a vowel of its type. It is inserted between the glide and the consonant to break the structure CC (epenthesis). It may be also be a consonant which is inserted between another consonant and a glide to break the structure CW (coalescence).

/j/ □ /j/

union /ynjɔ̃/ □ iniyo /inijo/ union  
 studio /stydjo/ □ sitidiyo /sitidijo/ studio  
 officier /ɔfisje/ □ (umu)ofisiye /ofisije/ officer  
 championat /ʃɑ̃pjɔ̃na/ □ ishampiyona /iʃampijona/ championship

/ɥ/ □ /w/

l'huile /lɥil/ □ ruwiri /ruwiri/ oil (peanut cooking oil)  
 Louis /lɥi/ □ Luwi /ruwi/ Louis  
 Louise /lɥiz/ □ Luwiza /ruwiza/ Louise  
 mutuelle /mytɥel/ □ mitiweli /mitiweri/ friendly society

/w/ □ /w/

mouchoir /mu ɔwaʀ/ → imushware /imu ɔkware/ handkerchief  
 chanoine /ʃanwan/ → shanwane /ʃanɣwane/ monk  
 Antoine /ɑ̃twan/ → Antwane /antɣwane/ Antony  
 foire /fwaʀ/ → fware /fkware/ fair

**Note:**

/w/ □ k before βg or between mɲ

moyen /mwajɛ̃/ → mwaye /mɲaje/ means, way  
 moine /mwan/ → mwane /mɲane/ monk

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<i>boîte</i> /bwat/	→ <i>bwate</i> /βgate/	box
<i>boisson</i> /bwas <sup>̃</sup> /	→ <i>bwaso</i> /βgaso/	drink

• **Consonants**

➤ **Denasalisation**

The phonological constraint of nasal vowels of French loanwords in Kinyarwanda is very strong. In fact, Kinyarwanda does not allow nasal vowels. Thus, French loanwords containing nasal vowels will lose their nasalised feature when they are lent to Kinyarwanda, especially when the nasalised vowel occurs in the final position of the word.

French nasal vowel sounds are very likely to adapt as follows:

<i>/œ̃/</i> → <i>/e/</i>		
<i>parfum</i> /paRf <sup>œ̃</sup> /	→ <i>parufe</i> /parufe/	perfume
<i>opportun</i> /ɔpɔRt <sup>œ̃</sup> /	→ <i>oporute</i> /oporute/	timely
<i>lundi</i> /l <sup>œ̃</sup> di/	→ <i>lendi</i> /rendi/	Monday

<i>/ɑ̃/</i> → <i>/a/</i>		
<i>gant</i> /g <sup>ɑ̃</sup> /	→ <i>ga</i> /ga/	glove
<i>mouvement</i> /muvm <sup>ɑ̃</sup> /	→ <i>muvoma</i> /muvoma/	movement
<i>parlement</i> /paRl <sup>ɑ̃</sup> m <sup>ɑ̃</sup> /	→ <i>pariloma</i> /pariroma/	parliament

<i>/ɛ̃/</i> → <i>/e/</i>		
<i>essuie-mains</i> /espim <sup>ɛ̃</sup> /	→ <i>eswime</i> /eskwime/	hand towel
<i>vin</i> /v <sup>ɛ̃</sup> /	→ <i>ve</i> /ve/	wine

<i>/ɔ̃/</i> → <i>/o/</i>		
<i>camion</i> /kamj <sup>ɔ̃</sup> /	□ <i>kamiyo</i> /kamijo/	lorry
<i>union</i> /Ynj <sup>ɔ̃</sup> /	□ <i>iniyo</i> /inijo/	union
<i>fondation</i> /f <sup>ɔ̃</sup> dasj <sup>ɔ̃</sup> /	□ <i>ifondasiyo</i> /ifondasij/	foundation

Kinyarwanda has four nasal consonant sounds /m/, /n/, /ɲ/, /ŋ/ and prenasalized consonants. However, unlike French, which has 4 nasal vowels, it has no nasal vowels. That is why French loanwords with nasal vowels in final position lose nasal segments.

**Examples:**

French	Loanword	Denasalised	English
<i>parfum</i> /paRf <sup>œ̃</sup> /	<i>parfe</i>	/e/	perfume
<i>gouvernement</i> /guveRnəm <sup>ɑ̃</sup> /	<i>guverinoma</i>	/a/	government
<i>mouvement</i> /muvm <sup>ɑ̃</sup> /	<i>muvoma</i> /a/		movement
<i>gant</i> /g <sup>ɑ̃</sup> /	<i>ga</i>	/a/	glove
<i>bulletin</i> /bylt <sup>ɛ̃</sup> /	<i>birete</i>	/e/	transcript
<i>salon</i> /sal <sup>ɔ̃</sup> /	<i>saro</i>	/o/	sitting-room
<i>camion</i> /kamj <sup>ɔ̃</sup> /	<i>kamiyo</i>	/o/	lorry

The above examples of loanwords clearly show that the four French nasal vowel sounds are very likely to lose nasalisation segments as follows:

<i>/œ̃/</i> → <i>/e/</i>
<i>/ɑ̃/</i> → <i>/a/</i>
<i>/ɔ̃/</i> → <i>/o/</i>
<i>/ɛ̃/</i> → <i>/e/</i>

➤ **Prenasalisation**

In the initial and middle position, whereby the nasal vowel is followed by a consonant, the nasalisation is preserved because the nasal segment spreads over that consonant.

**Examples:**

<b>French</b>	<b>Kinyarwanda</b>	<b>English</b>
<i>ambulance</i> /ɑ̃bylɑ̃s/ □	<i>ambilanse</i> /ambilans/	ambulance
<i>ampoule</i> /ɑ̃pul/	□ <i>ampure</i> /amphure/	light bulb
<i>ambassade</i> /ɑ̃basad/ □	<i>ambasade</i> /ambasade/	embassy
<i>embouteillage</i> /ɑ̃butɑ̃jaz/	□ <i>ambuteyaje</i> /ambuteja∞/	traffic-jam
<i>transport</i> /tʁɑ̃spɔʁ/ □	<i>taransiporo</i> / taransiporo/transport	
<i>concours</i> /kɔ̃kuʁ/	□ <i>konkuru</i> /koŋkuru/	entry test, contest
<i>comptable</i> /kɔ̃tabl/ □	<i>umukontabule</i> / umukontaβure/	accountant
<i>convoyeur</i> /kɔ̃vwajœʁ/□	<i>umukomvwayeri</i> /umukomvgajeri/	bus-conductor
<i>fondation</i> /fɔ̃dasjɔ̃/ □	<i>ifondasiyo</i> /ifondasijo/	foundation
<i>tondeuse</i> /tɔ̃døz/	□ <i>itondezi</i> /itondezi/	hair cutter

French loanwords are the only loanwords affected by prenasalization. When the nasal vowel is followed by a consonant, the nasalized segment spreads over the consonant following it.

➤ **Epenthesis**

Paradis (1995:419) comments that “if there is a glide or semi-vowel in the consonant cluster (CC), the inserted vowel is automatically of the same type as that glide. If the consonant cluster (CC) does not contain any glide in general, the inserted vowel is triggered by the first consonant of the cluster.”

In general the first part of the principle holds with some loanwords in Kinyarwanda, which contain the glide:

<i>scorpion</i> /skɔ̃ʁpjɔ̃/ □	<i>sikoropiyo</i> /sikoropijo/	scorpion
<i>studio</i> /stydj/ □	<i>sitidiyo</i> /sitidijo/	studio
<i>absolution</i> /apsɔ̃lysjɔ̃/□	<i>abusolisiyo</i> /aβusorisijo/	sin remittance
<i>camionnette</i> /kamj]nɛt/□	<i>kamiyonete</i> /kamijonete/	pick up
<i>camion</i> /kamjɔ̃/ □	<i>kamiyo</i> /kamijo/	lorry
<i>courrier</i> /kuʁje/ □	<i>kuriye</i> /kurije/	mail

The second part of the principle according to which if there is no glide in the loanword, the first consonant of the cluster triggers the vowel to be inserted holds as well. Let us consider the following examples:

<i>costume</i> /kɔ̃stym/ □	<i>kositimu</i> /kositimu/	suit
<i>stade</i> /stad/ □	<i>sitade</i> /sitade/	stadium
<i>sport</i> /spɔʁ/ □	<i>siporo</i> /siporo/	sports
<i>discours</i> /diskuʁ/	→ <i>disikuru</i> /idisikuru/	speech
<i>substitut</i> /syɔ̃pstitɥ/ →	<i>subusititi</i> /suβusititi/	deputy prosecutor

**Notes:**

- The word *absolution* /apsɔ̃lysjɔ̃/ contains the glide /j/. Therefore the inserted vowel /i/ is of the same type as /j/. On the other hand, the bilabial voiceless plosive consonant sound /p/ of the cluster /ps/, becomes the bilabial voiced fricative consonant sound /β/ in the loanword “abusolisiyo”. The voiced fricative /β/ triggers the insertion of the vowel /u/, which is a close back rounded vowel, nearly pronounced in the immediate surrounding of /β/ because of the rounding position of the lips.
- The word *scorpion* contains two consonant clusters /skɔ̃ʁpjɔ̃/. The initial consonant cluster /sk/ is broken by inserting the upper front vowel /i/. The alveolar consonant sound /s/ of the first consonant cluster /sk/ triggers the inserted segment, which is nearly pronounced in the same articulatory

environment. The second cluster contains two consonants /Rp/ and the glide /j/. The /Rp/ is broken by the vowel /o/ of the same type as /j/ in the first syllable of the original word “scorpion”. /o/ is the second epenthetic vowel inserted in the loanword *sikoropiyo*. The inserted vowel/o/ is affected by the preceding vowel /o/ in the syllable /ko/. The progressive assimilation process takes place here as discussed earlier. The third inserted vowel /i/ which breaks the consonant cluster is of the same type as the glide /j/. Therefore, we have 5 syllables in the loanword compared to the original word which had 2. The breaking up of the consonant clusters adds more vowels to the loanwords.

- The word *substitut* /sypstity/ has a 3-consonant cluster. Thus, the loanword *subusititi* inserts two vowels to break the consonant sequence, VCCCV, and we get *subusititi/suβusititi/*, VCVCVCV

However, in certain types of consonant clusters, the epenthetic vowel is exceptionally not inserted. Another consonant is rather inserted to merge the consonant and the glide. We have the case of coalescence. We have the structure VCCV different from the general structure CV of Bantu languages. Therefore the structure does not accept any vowel insertion between CC. This happens only when we consider the phonological aspect, whereby the glide /w/ follows a consonant which is inserted between the consonant and that glide. Thus, only the glide /j/ triggers the insertion of the vowel /i/, while /w/ triggers the insertion of a consonant, generally /k/, /g/, and /ŋ/, but not automatically /u/, which is a close back rounded vowel pronounced in the same environment as /w/.

<i>reçois</i> /Rəswa/	→ <i>ruswa</i> /ruskwa/	bribe, corruption
<i>histoire</i> /istwaR/	→ <i>isitware</i> /istkware/	history
<i>mouchoir</i> /mu]waR/	→ <b>mushware</b> /mu]kware/	handkerchief
<i>passoire</i> /paswaR/	→ <i>pasware</i> /paskware/	sieve
<i>chanoine</i> /]anwan/	→ <i>shanwane</i> /]anŋwane/	monk
<i>Loiret</i> /lware/	→ <i>Lware</i> /rgware/	Loiret
<i>ivoire</i> /ivwaR/	→ <i>ivware</i> /ivgware/	ivory
<i>voile</i> /vwal/	→ <i>ivwara</i> /ivgwara/	veil

➤ **Epenthesis**

In loanword adaptation, the process of breaking a consonant cluster and inserting a vowel between two consonants goes with the repair strategy principles. This implies that, instead of deleting the phonological segments of a loanword, the two consonants of the cluster are preserved, but with an inserted vowel in between. This is very common with loanword adaptation in interlacustrine languages, which have the syllabic structure (V)-CV-.

Once a loanword is adopted by a native speaker of L1, it undergoes changes in the borrowing language. Thus, it will take the form and the pronunciation of the host language.

Let us consider the case of the loanword *umupasitoro* (from the French *pasteur*). It has taken the augment *u-*, which is attested in class 1 denoting persons in singular, the nominal prefix *-mu-*, the root *-pasitoro*. The loanword has been adapted to Kinyarwanda structure and pronunciation. The vowel /i/ which is inserted between the consonant cluster /st/ of the root splits the original structure CC to have CVC. The vowel /i/ did not exist in the lending language. But because Kinyarwanda structure is VCV, exceptionally with some cases from our own findings which will be dealt with in a further section, the word is compelled to abide with the structure of the recipient language. The sounds of the loanword will have to change to fit the host language system. The word has become *umupasitoro* or *umupasiteri* from /**pastæR**/.

In loanword adaptation, phonological segments from the donor language are partially or totally lost. The loanword has taken some new phonological segments in the recipient language, while some other original segments are lost. The inserted vowel is very predictable.

For loanwords from words containing a glide, the inserted vowel is of the same type as that glide:

<i>camionnette</i> /kamj]nɛt/	□ <i>kamiyonete</i> /kamijonete/	pick up
<i>camion</i> /kamj ɔ̃/	□ <i>kamiyo</i> /kamijo/	lorry

However, when a word has more consonant clusters, as usually happens, other vowels which are not necessarily of the type of the glide are inserted. They are triggered by the first consonant of the cluster.

**Examples:**

*absolution* /apsɔlysjɔ̃/    □ *abusolisiyo* /aβusorisijo/ sin remittance

*scorpion* /skɔRpjɔ̃/    □ *sikoropiyo* /sikoropijo/ scorpion

The two words contain the glide /j/ but the inserted vowel is /u/, which is rather triggered by the bilabial /β/, and in the second example /o/ is assimilated to the preceding vowel /o/.

For loanwords from words which do not contain any glide, the first consonant triggers the inserted vowel.

<i>sucre</i> /sYkR/	□	<i>isukari</i> /isukari/	sugar
<i>démocratie</i> /demɔkRasi/	□	<i>demokarasi</i> /demokarasi/	democracy
<i>star</i> /stɑː/	□	<i>umusitari</i> /umusitari/	popular person
<i>steam</i> /sti:m/	□	<i>isitimu</i> /isitimu/	torch
<i>tableau</i> /tablo/	□	<i>itabulo</i> /itaβulo/	board
<i>pneu</i> /pnø/	□	<i>ipune</i> /ipune/	tyre, wheel
<i>lift</i> /lift/	□	<i>ilifuti</i> /irifuti/	lift

In the above examples, the voiceless plosive velar consonant /k/ triggers the open back spread vowel /a/ in /isukari/ and /demokarasi/. They both belong to the same phonological environment.

The voiceless fricative alveolar consonant /s/ triggers the front and flat vowel /i/ in /umusitari/, /isitimu/ because they share the same articulatory phonological features. They are both pronounced nearly in the same position.

The voiced bilabial fricative consonant /β/, the voiceless bilabial plosive consonant /p/, the voiced bilabial nasal consonant /m/, and the voiceless labiodental fricative consonant /f/ all trigger the close back rounded vowel /u/ in /itaβulo/, /ipune/, /umupaka/, /irifuti/.

➤ **Assimilation**

Although there has not been a thorough study of Kinyarwanda language change, assimilation is very common. It is often referred to as vowel harmony because one vowel influences other vowel sounds within one word (e.g. *u-mu-ntu* (man); *a-ba-na* (children)). Doke (1935:237) distinguishes three types of assimilation, which can apply to loanwords in Kinyarwanda:

➤ **progressive assimilation:** the second sound is affected by the preceding one

<b>Loanword</b>	<b>source</b>	<b>English</b>
<i>ifaranga</i> /ifaranga/	franc	franc
<i>antereneri</i> /antereneri/	entraîneur	coach

The inserted vowel between the consonant cluster affects the following sound, and this is very predictable as to which sound will follow.

➤ **regressive assimilation:** the sound that comes first is affected by the following one.

<b>Loanword</b>	<b>Source word</b>	<b>English</b>
<i>impapuro</i> /impapuro/	<i>papiers</i>	sheets of paper
<i>inkambi</i> /inkambi/	<i>camp</i>	camp
<i>gukopera</i> /gukopera/	<i>copier</i>	to cheat an exam
<i>gusinya</i> /gusiŋa/	<i>signer</i>	to sign
<i>gukilika</i> /gukirika/	<i>click</i>	to click
<i>kudefiriza</i> /kudefiriza/	<i>défriser</i>	to straighten (hair)
<i>kuvibura</i> /kuvibura/	<i>vibrer</i>	to vibrate

In Kinyarwanda, regressive assimilation of sounds beginning the nominal prefix and the verbal root obeys Dahl's phonological law:

A verbal root beginning with a voiceless consonant sound has the infinitive beginning with a voiced consonant sound, which is always /g/. A verbal root beginning with a voiced consonant sound has the infinitive beginning with a voiceless consonant sound, which is always /k/.

➤ **reciprocal assimilation:** two sounds have mutual influence upon each other.

Loanword	Source word	English
<i>ibombo</i> /iβombo/	<i>bonbon</i> /bɔ̃bɔ̃/	sweets
<i>ruswa</i> /ruskwa/	<i>reçois</i> /Rəswa/	tip, bribe, corruption
<i>urushinge</i> /uruʃinge/	<i>seringue</i> /serɛ̃g/	syringe
<i>ishashe</i> /iʃaʃe/	<i>sachet</i> /saʃe/	plastic bag

In Kinyarwanda reciprocal assimilation very often results in coalescence. Consonants such as /k/, /g/, /ŋ/ are inserted when a consonant is followed by the approximant /w/:

### Examples:

*umutwe* /umutkwe/: a head  
*umutwa* /umutkwa/: a pygmy  
*ugutwi* /ugutkwi/: an ear  
*utwana* /utkwana/: little children  
*umuswa* /umuskwa/: a termite (with a high tone on u); /umuskwa/: fool  
*igufwa* /igufkwa/: a bone  
*igishwi* /igjikwi/: a sparrow  
*ishwagara* /iʃkwagara/: lime  
*gucwekera* /gutkwekera/: to be quiet  
*icwende* /itkwende/: a small calabash to keep butter in.  
*ubwato* /uβgato/: a boat  
*ubwatsi* /uβgatsi/: grass  
*ibwami* /iβgami/ : a royal court  
*ubwanwa* /uβganŋwa/: beard  
*urwara* /urgwara/: a finger nail  
*urwamo* /urgwamo/: noise  
*indwara* /indgwara/: disease  
*umwana* /umwŋana/: a child  
*umunwa* /umunŋwa/: a mouth

### • Consonants

Some French consonants change as follows :

**/p/ □ β/**, especially if the French consonant cluster is /ps/, /pst/, or /pstR/  
*absolution* /apsɔ̃lysɔ̃/ □ *abusolisiyo* /aβusorisijo/      sin remittance  
*substance* /syɔ̃pstɔ̃s/ □ *subusitanse* /suβusitanse/      substance  
*substitut* /syɔ̃pstitɔ̃/      □ *subusititi* /suβusititi/      deputy prosecutor

### **/b/ □ β/**

*bus* /bys/      → *ibisi* /iβisi/      bus  
*bureau* /byro/      □ *ibiro* /iβiro/      office, bureau  
*bar* /baR/      □ *ibare* /iβare/      night club  
*bonbon* /bɔ̃bɔ̃/      □ *ibombo* /iβombo/      sweet, candy  
*saboter* /sabɔ̃te/      □ *gusabota* /gusaβota/ to botch

**/k/ □ ɡ/**, when the French consonant cluster is /kt/  
*docteur* /dɔ̃ktœ:R/      □ *dogiteri* /doɡiteri/      doctor  
*directeur* /diRɛktœ:R/      □ *diregiteri* /direɡiteri/      director

facture /faktvR/

□ ifagitire /ifagitire/ bill

/l/ □ /r/

salle /sal/

→isale /isare/

room, hall

salon /salɔ̃/

→isalo /isaro/

sitting-room

### Specific loanwords in detail:

1. *calendrier* /kalɛ̃dRije/ vs *karendari* /karendari/.

The voiceless plosive /k/ in the original word *calendrier* has been kept in the borrowing language. The lateral /l/ has become the post-alveolar /r/. [r] and [l] are allophones of the same phoneme /R/. The nasal vowel sound /ɛ̃/ has become /en/ and /a/ has been inserted between /d/ and /r/ by the process of epenthesis. The sound /je/ has completely disappeared. There is a high tone on the third syllable /-nda/.

3. *francs* /fRɛ̃/ vs *samafaranga* /amafaranga/.

The word has fully been adapted. The word *francs* has almost disappeared to give birth to a new word. Apart from the sound /f/, the rest of the other sounds are new. As said previously, Kinyarwanda /r/, which is an allophone, is different from the French /r/.

3. *essuie-mains* /esujimɛ̃/ vs *eswime* /eskwime/:

The original vowel and the glide sounds in the lending language have completely been changed. The glide /uj/ has become /w/ in the borrowing language. /ɛ̃/ has lost its nasalised feature to become /e/.

4. *belge* /belʒ/ vs *umubiligi* /umuβirigji/ :

The word has preserved none of the sounds of the original language. The sound /b/ of the lending language is different from the /β/ of the borrowing language. /œ/ has changed into the Kinyarwanda sound /gj/. The consonant cluster /lœ/ has been broken and the vowel /i/ inserted. /l/ has become /r/, both sounds being allophones of the same phoneme. All the vowel sounds have completely disappeared.

5. *carte* /kaRt/ vs *ikarita* /ikarita/:

This word has preserved most of its original phonological segments. The only segment which has changed is /r/ because it is not pronounced in the same way as the French /R/. The vowel sound has been inserted between /r/ and /t/ by the process of epenthesis, which consists of breaking a consonant sequence by inserting a vowel between two consonants. There is a high tone on the second syllable and the third /ikárítà/

6. *reçois* /Rəswa/ vs *ruswa* /ruskwa/:

The word has completely changed its original sounds and has been assimilated to Kinyarwanda phonology. The original word *reçois* /Rəswa/ means receive, take. The central vowel /ə/ in /Rə/ has exceptionally become /u/ instead of /o/. *Ruswa* is pronounced /ruskwa/ to fit the phonology of Kinyarwanda, which requires that voiceless consonant sounds /t/, /s/, /f/, /ʃ/, /tʃ/ followed by /w/ insert the consonant sound /k/. The assimilation process is coalescence. The high tone is on the first syllable.

7. *papier* /papje/ vs *urupapuro* /urupapuro/:

The word has lost the semi-vowel cluster /je/ and has kept the stem of the original language /pap/.

8. *cahier* /kaje/ vs *ikaje* /ikaje/:

The loanword has taken a high tone on the second syllable /-ka-/ and a low tone on /-je/. All the segments have been preserved, except the French tonic accent. In, the French tonic accent, which is a suprasegmental element, has been lost to the detriment of the Kinyarwanda low tone on the penultimate. French words having more than one syllable always carry the stress on the last syllable, which is lost when a word is lent to Kinyarwanda.

9. *sucre* /sykR/ vs *isukari* /isukari/:

The word *sucre* has nearly kept the stem /sykR/. However, the vowel sound /y/ has become /u/. The consonant cluster /kR/ has been broken up and the vowel /a/ inserted in between.

10. *fraudeur* /fʁodœ:R/ vs *umuforoderi* /umuforoderi/:

The sounds /f/, /o/, and /d/ have been preserved. The consonant cluster /fR/ has been broken up and the vowel /o/ inserted in between. The vowel sound /œ:/ is not attested in Kinyarwanda. Thus, it has been changed into a moreless similar sound /e/.

The preservation and loss of phonological segments in French loanwords in Kinyarwanda is very predictable. French vowels and consonants change in such a way that they adapt to Kinyarwanda system vowels and consonant sounds.

### Adaptation of English Loanwords

#### • Vowels

/i:/ and /i/ □ /i/ or /e/

steam /sti:m/ □ isitimu /isitimu/

lift /lift/ □ ilifuti /irifuti/

The Kinyarwanda sound /i/ is halfway between the English long vowel /i:/ and the short vowel /i/. Therefore the pronunciation of an English loanword which originally contained /i:/ or /i/ , will adapt to the pronunciation of the Kinyarwanda /i/, which is closer to the former. English words ending in /i/ are very often mispronounced and the /i/ is pronounced like /e/. We can predict that the following words will adapt as follows:

technology /tek'nɒlədʒi/ □ tekinologe /tekinologje/

money /'mʌni/ □ mane /mane/

sorry /'sɒri/ □ sore /sore/

city /'siti/ □ site /site/

/ə/, /ə:/, /ɑ:/, /ʌ/, /æ/ □ /a/

shirt /ʃɜ:t/ □ *ishati* /iʃati/

sir /sə/ □ *sa* /sa/

teacher /'ti:tʃə/ □ (*umu*)*tica* /titʃa/

passport /'pɑ:spɔ:t/ □ (*i*)*pasipoti* /pasipoti/

sweetheart /'swi:thɑ:t/ □ *umuswitehate* /umuskwitehate/

casualty /'kæʒuəlti/ □ *umukajuwaliti* /umukaɔuwariti/

cupboard /'kʌbəd/ □ *akabati* /akaβati/

driver /'draivə/ □ (*umu*)*dereva* /dereva/

The central English vowels are reduced only to one sound /a/. This may explain the fact that some Rwandan learners pronounce the sound /ə:/ like their mother tongue sound /a/, especially if they were trained by a teacher related to East Africa (Uganda, Kenya, Tanzania) where the mispronunciation seems to have been originated. Bantu languages existing in those three countries have the same sound /a/ as the Kinyarwanda /a/. Therefore, today many Rwandans imitate the same pronunciation, and English words containing /ə:/ are likely to adapt in the following way:

girl /gɜ:l/ □ *gala* /gala/

church /tʃɜ:t/ □ *cace* /tʃatʃe/

first /fɜ:st/ □ *fasite* /fasite/

hurt /hɜ:t/ □ *hate* /hate/

The mispronunciation of /ə:/ for /a/ the other way round is very common among Rwandan and East African communities. For example, Rwandan speakers with no phonetic training perceive “**first**” as “**fast**”. Thus, the mispronunciation of /ə:/ for /a/ has been transferred to Rwanda. The impact of the incorrect perception of the sound is not an easy thing. It can have result in poor communication. Just to illustrate this, here is a short anecdote:

At one location called “40”, so named after the road traffic sign-post “40 km”, at Biryogo, Kigali (Rwanda), there used to be a clothes shop called “New Fast Class for You”. In 1994, the owner of the shop wrote this to advertise his clothing items. He simply intended to write “New First Class for You”, but because the shopowner or the person who wrote the advertisement on his behalf mispronounces the word “first” as /fɑ:st/, he wrote “New Fast Class for You”. Fortunately, he has already removed the word “Fast” and wrote “First”. Thus, today the advertisement reads “New First Class for You”. Hopefully, someone told him/her it was a mistake of pronunciation.

It is very common to find in some notebooks of Rwandan children who start learning English from Nursery some pronunciation and spelling mistakes: *garl* for girl, *blacka* for black, *banka* for bank, *bard* for bird, *bowl* for bowl, *sipune* for spoon, etc.

The Kinyarwanda word *ishati* (a shirt), which was borrowed from the English word (shirt) via Kiswahili many years ago, shows how a loanword adapts itself and finds life in the pronunciation system of the borrowing language. The English word “shirt” changed its original phonological segments, except two consonant sounds. It only kept the consonant sounds /ʃ/ and /t/. It took the augment sound /i/, the vowel sound /a/, and the final vowel /i/.

/ɔ:/ and /ɒ/ □ /o/

report /ri'pɔ:t/ □ *ripoti* /ipoti/

shot /ʃɒt/ □ *ishoti* /iʃoti/

horn /hɔ:n/ □ *ihoni* /ihoni/

/u:/ and /u/ □ /u/

groom /gru:m/ □ *umugurumu* /umugurumu/

#### Insertion of the glide between a diphthong

Like in the epenthesis process, which consists of breaking up a consonant cluster and inserting a vowel between two consonants, English loanwords in Kinyarwanda insert the glides /j/ or /w/ to coalesce the diphthong. There is resyllabification of the source word.

The following diphthongs are very likely to change as follows:

/ɔɪ/ → **oji**

boy /bɔɪ/ → *umuboyi* /umuβoji/

Joy /-dʒɔɪ/ → *Joyi* /zɔji/

/aɪ/ → **aji**

mobile /'məubail/ → *mobayilo* /moβajiro/

pilote /'pailəut/ → *payilote* /pajirote/

But driver /'draɪvə/ → *umudereva* /umudereva/ and not “umudarayiva”

→ *Mudereva* (family name)

/eə/ → **eja**

mayor /meə/ → (*umu*) *meya* /meja/

share /ʃeə/ → *sheya* /ʃeja/

care /keə/ → *keya* /keja/

/iə/ → **ija**

ear /iə/ → *iya* /ija/

year /jiə/ → *yiya* /jija/

But union /'ju:niən/ → *yunyoni* /ju□oni/

/aʊ/ → **awu**

how /haʊ/ → *hawu* /hawu/

cow /kau/ □ kawu /kawu/

/uə/ → /uwa/

poor /puə/ → puwa /puwa/

tour /tuə/ → tuwa /tuwa/

#### Exceptions:

Monosyllabic words having the diphthong /əu/ change to /o/:

so /səu/ → so /so/

no /nəu/ → no /no/

The diphthong /ei/ followed by a consonant changes /ei/ to /e/

paper /'peipə/ → pepa /pepa/

tape /teip/ → tepe /tepe/

take /teik/ → teke /teke/

make /meik/ → meke /meke/

lake /leik/ → lake /leke/

cake /keik/ → keke /keke/

late /leit/ → lete /let/

rate /reit/ → rete /ret/

pain /pein/ → pene /pen/

Words spelt "y" in the final position change /ei/ or /i/ to /e/:

anyway /'eniwei/ → enewe /enewe/

day /dei/ → de /de/

money /'mni/ → mane /mane/

nobody /'nəbɪdi/ → nobode /nobode/

#### • Consonants

**The fortis voiceless bilabial plosive /p/ □ thelenis voiceless bilabial plosive /p/**

The English sound /p/ occurs in the initial, middle, and final position in words such as **pot**, **pet**, **capable**, **topography**, **top**, **sap**. It is a voiceless plosive. In the initial position it is stronger than in the middle and initial position. /p/ is silent before /s/ and /n/ in **psychology**, **psychiatric**, **psalm**, **pneumonia**. It is also found in the word **shepherd**.

In Kinyarwanda /p/ occurs in loanwords only and in middle position

#### Examples:

papaya /'papaɪə/ → ipapayi /ipapaji/

pilote /'pailət/ → umupayilote /umapajilote/

pick /pik/ → ipiki /ipiki/

pastor /'pa:stə/ → umupasitoro /umapasitoro/

Originally there was no /p/ in the language system of Kinyarwanda. It came alongside foreign words from Kiswahili, French, and English.

**The fortis voiced bilabial plosive /b/ □ thelenis voiced bilabial fricative /β/**

The English /b/ occurs in initial, middle, and final position in the following words: **beat**, **battle**, **robbery**, **responsibility**, **sob**, **rib**. It is silent in the final position after /m/ in **limb**, **lamb**, **comb**, **thumb**, **climb**, **numb**.

Kinyarwanda has a rather fricative voiced sound /β/. When this sound is pronounced there is no obstruction of the air in the oral cavity. It is not released with an explosion. On the contrary there is a friction of the air between the upper and the lower lips and the air smoothly escapes from the mouth more freely. It is found in words such as *ibaba* (a feather), *ibaruwa* (Sw *barua*: a letter), *imbeba* (a mouse), *isabuni* (*sabuni* in *Kiswahili*, soap).

Rwandans are very likely to pronounce English and French /b/ like their mother tongue sound /β/, unless they are well trained. The only loanword which has retained /b/ in Kinyarwanda is bayi /baji/ from goodbye (God be with ye). Elsewhere, it is /β/.

Bob /bɒb/ → Bobu /βoβu/  
Robert /'rɒbət/ → Robati /roβati/  
blue/blu:/ → bururu /βururu/

**The fortis voiceless alveolar plosive /t/ □ thelenis voiceless palato-alveolar plosive /t/. The fortis voiced alveolar plosive /d/ □ thelenis voiced palato-alveolar plosive /d/**

The English sounds /t/ and /d/ occur in Kinyarwanda differently. In English they are alveolar sounds. In Kinyarwanda the nearest equivalents are palato-alveolars. Thus, /t/ in the word time /taim/ or /d/ in den /den/ will not necessarily be pronounced as correctly as possible by a Rwandan speaker of English.

team /ti:m/ □ itimu /itimu/  
Daddy /'dædi/ □ umudadi /umudadi/  
disk /disk/ □ idisike /idisike/

**The voiced lateral alveolar /l/ and the voiced approximant alveolar /r/ □ the voiced lateral palato-alveolar /ɾ/**

In Kinyarwanda /r/ is a lateral post-alveolar sound. [r] and [l] are allophones of the same phoneme /R/. The English /r/ being also different from the French /R/, Rwandan speakers of English and French will likely pronounce it like the Kinyarwanda one. /r/ and /l/ occur in the following loanwords, but they are all pronounced alike:

lift /lift/ → ilifuti /irifuti/  
goal /gəʊl/ → igori /igori/  
ratio /'reɪʃiəʊ/ → irasiyo /irasiiyo/  
report /ri'pɔ:t/ → iripoti /iripoti/

The English sound /dʒ/ does not exist in Kinyarwanda. The attested closer sounds are /gj/ and /ʃ/. Thus, the words below will likely be mispronounced as follows:

imagine /ɪ'mædʒɪn/ □ imajine /imagjine/  
John /dʒɒn/ □ Joni /gjoni/  
George /dʒɔ:dʒ/ □ Joje /gjogje/

**The fortis voiced velar fricative /h/ □ lenis voiced velar fricative /h/**

The fricative sound /h/ is less aspirated than the English aspirated /h/. It occurs in middle position in words such as *umuhoro* (a sickle), *umuhungu* (a boy), *amahoro* (peace), etc. In English words with aspirated /h/ like hesitate, height, house, hunger, humour, /h/ will likely be mispronounced mute or half mute.

home /hʊm/ □ ihome /ihome/  
horn /hɔ:n/ □ ihoni /ihoni/

**The fortis voiceless dental fricative /θ/ → lenis voiceless alveolar fricative /s/**

**The fortis voiced dental fricative /ð/ → lenis voiced alveolar fricative /z/**

The English dental fricative sounds /θ/, /ð/ are the most difficult sounds. In fact such these sounds do not exist in Kinyarwanda. This is why /θ/ may be mispronounced /s/, sometimes /f/ or /t/, and /ð/ will be mispronounced /z/, sometimes /v/ or /d/.

**Examples:**

thank you /'θæŋkju/ → senkiyu/senkiju/, also /fenkiju/ or /tenkiju/.  
another boy /ə'nʌðəbɔɪ/ → enazaboyi/enazaβoji/, /enavaβoji/, or /enadaβoji/.

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Maths /mæθs/ → mase /mase/

### Notes:

#### Adaptation of Consonant Clusters:

The pronunciation of words containing a consonant cluster will require the breaking up of that consonant cluster and the insertion of a vowel. Because such a sequence does not exist in Kinyarwanda, the process of epenthesis is used to adapt the cluster to the Kinyarwanda structure (V)-CV-. A homorganic vowel (or a consonant) is inserted between two consonants or a consonant and a glide.

#### Examples:

profit /'prɒfɪt/	<input type="checkbox"/> <i>porofite</i> /porofite/
plug /plʌg/	<input type="checkbox"/> <i>pulage</i> /pulage/
brown /braʊn/	<input type="checkbox"/> <i>burawuni</i> /βurawuni/
blue /blu:/	<input type="checkbox"/> <i>buru</i> /βuru/
trade /treɪd/	<input type="checkbox"/> <i>terede</i> /terede/
traffic-light /'træfɪklaɪt/	<input type="checkbox"/> <i>tarafikerayite</i> /tarafikerajite/
dry /draɪ/	<input type="checkbox"/> <i>darayi</i> /daraji/
cry /kraɪ/	<input type="checkbox"/> <i>karayi</i> /karaji/
clean /kli:n/	<input type="checkbox"/> <i>kirine</i> /kirine/
film /fɪlm/	<input type="checkbox"/> <i>filime</i> /firime/
grow /grəʊ/	<input type="checkbox"/> <i>gorowu</i> /gorowu/
green /gri:n/	<input type="checkbox"/> <i>girine</i> /gʲirine/
groom /gru:m/	<input type="checkbox"/> <i>gurumu</i> /gurumu/
exam /i'gzæm/	<input type="checkbox"/> <i>igizami</i> /igʲizami/
six /sɪks/	<input type="checkbox"/> <i>sigisi</i> /sigʲisi/
sixth /sɪksθ/	<input type="checkbox"/> <i>sigisi</i> /sigʲisi/
slight /slɑɪt/	<input type="checkbox"/> <i>sirayite</i> /sirajite/
sky /skɑɪ/	<input type="checkbox"/> <i>sikayi</i> /sikaji/
smart /smɑ:t/	<input type="checkbox"/> <i>simate</i> /simate/
snow /snəʊ/	<input type="checkbox"/> <i>sinowu</i> /sinowu/
speak /spi:k/	<input type="checkbox"/> <i>sipike</i> /sipike/
stone /stəʊn/	<input type="checkbox"/> <i>sitone</i> /sitone/
strike /straɪk/	<input type="checkbox"/> <i>sitarayike</i> /sitarajike/

#### Consonant insertion

The consonant /k/ is very likely to be inserted between /tw/ and /sw/, and /g/ between /dw/.

twilight /'twɑɪlaɪt/	<input type="checkbox"/> <i>twayilayite</i> /tkwajirajite/
twice /twɑɪs/	<input type="checkbox"/> <i>twayise</i> /tkwajise/
twelve /twelv/	<input type="checkbox"/> <i>tweruvu</i> /tkweruvu/
swim /swɪm/	<input type="checkbox"/> <i>swime</i> /skwime/
dwelt /dweɪl/	<input type="checkbox"/> <i>dwele</i> /dgwere/
dwarf /dwaɪ]:f/	<input type="checkbox"/> <i>dwarufe</i> /dgwarufe/
dwindle /!dwaɪndl/	<input type="checkbox"/> <i>dwindele</i> /dgwindere/

### Notes:

#### Specific loanwords in detail:

If we take some English loanwords and study their adaptation in detail, we notice that the principle of preservation and loss of segments in English loanwords still applies like in the French loanwords.

##### 1. lift /lɪft/ vs *irifuti* /irifuti/

The word follows the structure (V)-CV- common to augment languages. Only the vowel /i/ and the consonants /f/ and /t/ from the source language have been preserved. The lateral alveolar sound /l/ has been replaced by the approximant post-alveolar sound /r/. The high close back rounded vowel sound /u/ has been inserted between the 'ft' through the process of epenthesis which consists of breaking up consonant sequence and inserting a vowel between the two consonants.

2. boy /bɔɪ/ vs *umuboyi* /umuβoji/

The word has kept none of the original language sounds. The Kinyarwanda bilabial voiced fricative consonant sound /β/ is different from the English bilabial voiced plosive /b/. For English words ending in a diphthong, a semi-vowel sound is generally inserted between the diphthong, when they are lent to Kinyarwanda. However, because of the repair strategy, /bji/ changes to /umu βoji/. The voicing feature of the bilabial plosive /b/ is preserved in the voicing feature of the bilabial fricative /β/, while the diphthong /ji/ has become /oji/

3. cake /keɪk/ vs *ikeke* /ikeke/

Only the consonant sound /k/ has been preserved. It is not a velar plosive like the English /k/. Practically speaking, it is not the pure /k/ but rather /kj/. The sound which is perceived contains the glide, which makes it rather palato-velar.

4. star /stɑː/ vs *umusitare* /umusitare/

The word has preserved most of its original segments. The consonant cluster /st/ has been broken up and the vowel /i/ inserted. The Kinyarwanda /t/ consonant sound is an alveo-dental voiceless plosive sound, just like the French /t/. It is different from the English alveolar voiceless plosive sound. The back vowel /ɑː/ has been changed into /a/. The silent /t/ in the source language has been kept in the borrowing language. Still, the Kinyarwanda lateral post-alveolar /r/ is pronounced differently from the English approximant post-alveolar /r/.

5. casualty /'kæʒuəlti/ vs *umukajuwali* /umukaʒuwariti/

The word has fully been adapted in the Kinyarwanda phonology system. The vowel sound /æ/ has become /a/. The identical palatal lenis fricative /ʒ/ has been preserved, because it is the same consonant sound in both languages. The semi-vowel /w/ has been inserted to break up the diphthong /uə/. The vowel /i/ has been inserted between /t/ to break up the consonant sequence.

6. knife /naɪf/ vs *ikanifu* /ikanifu/

Only two consonant sounds /n/ and /f/ from the lending language have been preserved. The English silent /k/ before /n/ (k→φ/-n) has been preserved in Kinyarwanda. The diphthong /ai/ has been changed into one single vowel /a/. The final /u/ may be justified by the fact that there is progressive assimilation. The labio-dental fricative sound /f/ features spread over the vowel sound. /f/ affects the following sound because of the rounding of the lips. Thus, we have a close back rounded vowel sound /u/.

7. goal /gəʊl/ vs *igori* /igori/

The word has only kept the consonant sound /g/. The diphthong /ɔu/ has been reduced or simplified to become the single vowel /o/. /l/ has changed into /r/. The initial /i/ and the final /i/ follow the regular Kinyarwanda word structure of VCV.

8. note /nəʊt/ vs *inote* /inote/

Apart from the loss of the diphthong /ɔu/, two sounds from the source language, /n/ and /t/, have been kept. As said previously, the Kinyarwanda sound /t/ is pronounced differently from the English /t/.

9. steam /sti:m/ vs *isitimu* /isitimu/

Although there have been phonological changes, the phonological identity of all the sounds from the source language has almost been preserved. The consonant cluster /st/ has been broken up and the vowel /i/ inserted. The long high close front flat vowel /i:/ has been changed into a moreless corresponding sound /i/. The bilabial lenis nasal sound /m/ is the same in both languages. The final high close back rounded vowel /u/ after /m/ is justified by the neighbourhood features of the rounding of the lips in the pronunciation of /m/.

### Conclusion

This paper has allowed us to explore most aspects of loanword adaptation, especially the phonological one. So far, the area of loanword adaptation in Kinyarwanda has not been dealt with by linguists. This work will undoubtedly be a substantial contribution to linguistics in general, and to sociolinguistics in particular.

Some areas of life accommodate more loanwords than others, especially for the realities which did not exist in the borrowing language, and that there is a great need of borrowing a foreign word or concept. In Kinyarwanda, the areas of influence of technology, religion, science, education, commerce, banking, and

taxation have retained more foreign elements than any other areas. However, although Rwandans had a strong traditional religion, they have adopted more words from Christianity and Islam, simply because both creeds had a great influence on the Rwandan culture, education, civilization, and politics.

The degree of phonological sieve of the DL (Donor Language) speaker determines how the loanword is going to be adapted in the BL (Beneficiary Language). People do not perceive the sounds in the same way. After having acquired sounds of a given language system, the brain is very likely to assimilate foreign sounds to those it has already acquired. Thus, the sounds from the donor language will be changed according to the degree of perception of the learner, e.g. boy /bɒ i/ changes to *umuboyi* /umuβoji/, lift /lift/ changes to *irifuti* /irifuti/, shirt /ʃɜ:t / to *ishati* /iʃati/, etc. As a matter of fact, perception strongly triggers changes in loanword adaptation. Many loanword changes in both spelling and pronunciation take place during perception, although there may be some other factors conditioning the adaptation.

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