

## Adaptation of Loanwords in Chasu

*Justin Msuya\* and Abel Y. Mreta\*\**

### **Abstract**

*It is generally agreed that, in a multilingual context, the incorporation of foreign words into a native language is inevitable. However, owing to variations in languages' systems (phonology, morphology, syntax), each language has its own strategies for adapting loanwords to its system. This paper presents the strategies through which loanwords are integrated into Chasu vocabulary. The data were obtained from Kamusi ya Chasu-Kiingereza-Kiswahili (Mreta 2008) and the fieldwork conducted in Rundugai and Chemka villages in Kilimanjaro Region. The paper is guided by two theoretical approaches, namely the Theory of Constraint and Repair Strategy (TCRS) (Paradis & Lacharité, 1997) and Assimilation Theory (McMahon, 1994; Campbell, 1998; Winford 2003). The paper shows that loanwords are subjected to both phonological and morphological modifications when they are borrowed by Chasu. It is posited that the influx of loanwords in Chasu will eventually lead to the introduction of foreign phonemes into the language's phonemic system.*

**Key words:** *loanwords, phonological adjustments, morphological adjustments, phonemic system, Chasu*

### **Introduction**

Borrowing is a common tendency across languages, especially in a contact situation. In fact, it is a common phenomenon for a language to incorporate words from other languages and treat them as part of its own vocabulary (Campbell, 1998; Winford, 2003). In most cases, words are borrowed directly (from the source language) or indirectly (trans-lingual borrowing). In either way, the ultimate purpose for borrowing is to fill the existing gap in the lexicon (Winford, *ibid.*). Since languages differ significantly in their system, in most cases loanwords are subjected into morphological and phonological transformation in order to conform to the structure of the recipient language. However, based on the language in question, the adaptation strategies are sometimes language specific. Each language has developed its own system of incorporating loanwords into its vocabulary.

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\* Assistant Lecturer, Centre for Communication Studies, University of Dar es Salaam, P.O. Box 35040 Dar es Salaam, Tanzania, E-mail: msuyajustin26@gmail.com

\*\* Retired Senior Lecturer, Department of Foreign Languages and Linguistics, University of Dar es Salaam, P.O. Box 35040, Dar es Salaam, Tanzania, E-mail: mretaone@yahoo.co.uk

This paper presents the strategies used for adapting loanwords into Chasu. Specifically, the paper focuses on the morphological and phonological strategies employed when adapting loanwords (that is, nouns and verbs) in Chasu. It is important to note that in this paper, justification will be provided for cases which the purpose for adaptation or adoption is contrary to filling lexical gap.

Chasu is a Bantu language spoken along the mountain ranges called Pare Mountains located on the Northeastern part of Tanzania in Mwanga and Same Districts in Kilimanjaro Region (Mreta, 1998). The literature shows that there are two dialects of Chasu, namely the northern dialect (Kiathu/Chathu, as referred to by its speakers) and the southern dialect (referred to as Kimpare). However, due to the vastness of the area in the South, several varieties such as Kisuji, Kimbaga, Kimamba and Kigonja emerged (Mreta, 1998; Msuya, 2014). Guthrie (1948) classified Chasu in zone G (Shambala group) and coded it G.22. In this classification, North Pare is designated G.22A and South Pare as G.22B (see Maho, 2009). However, in this paper, the focus is on the Northern dialect.

Sociolinguistic studies in the Chasu community indicate that 5% of the speakers are monolingual in Chasu, 63% are bilingual, that is, Chasu and Swahili and 32% are trilingual which means they speak Chasu, Swahili and English (Yohana, 2009). In terms of usage, like other Bantu languages, Chasu is used as a means of communication at homes, in religious contexts and in informal settings such as markets, in funerals and in some socio-cultural and socio-political activities such as *kieko* (for initiation), *vughimbi* (for marrying), *ndethi* (for cursing) and *maatha* (for litigation) (Msuya, 2014).

Like many other languages, Chasu co-exists with other Ethnic Community Languages (ECLs), namely Swahili, Shambala and Gweno among others. On this ground, there have been a contact between Chasu and the mentioned languages which led to the incorporation of foreign vocabularies into Chasu (Mreta, 2000). Campbell (1998: 57) posits that 'It is common for one language to take words from another language and make them part of its own vocabulary.'

Before embarking on the strategies through which loanwords are integrated into Chasu, it is important to present briefly both phonemic system and nominal morphology of Chasu.

## Phonemic System of Chasu

### Consonants Phonemes

Chasu has 29 consonants including pre-nasalized ones. The majority of these consonants have the recognized IPA symbols, except for the pre-nasalized ones. This is because the pre-nasalized sounds are commonly found in African languages only. The Chasu consonants phonemes are presented in Table 1.

**Table 1: Chasu Consonant Phonemes**

	Bilabial	Labio-dental	Dental	Alveolar	Palatal	Velar	Glottal
Plosives/Implosives	p ɓ			t dʼ	ʃ	k g	
Nasals	M			n	ɲ	ŋ	
Pre-nasalized	Mb	Mv	Ndh	nd	nj	ng	
Trills				r			
Fricatives	B	F	əð		f	ɣ	h
Affricates					tʃ		
Laterals				l			
Approximants	W				j		

Adapted from: Mreta (1998)

The following is a list of all Chasu phonemes with their corresponding orthography.

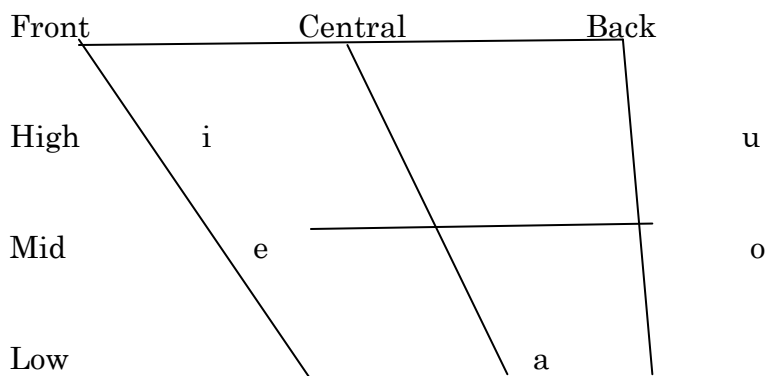
Phonetic symbol	Orthographic system	Example and its gloss	Phonetic symbol	Orthographic system	Example and its gloss
p	p	<i>puta</i> 'smoke'	ɓ	dh	<i>dhomana</i> 'encounter,'
ɓ	b	<i>béka</i> 'be broken'	ʃ	sh	<i>shínjía</i> 'sleep'
t	t	<i>tára</i> 'count'	ɣ	gh	<i>ghabha</i> 'divide'
dʼ	d	<i>díha</i> 'grunt, cry in pain'	H	h	<i>híra</i> 'act, do'
ʃ	j	<i>jewa</i> 'clear', 'white'	tʃ	ch	<i>chánwa</i> 'a drink'
k	k	<i>kéla</i> 'suppress, defeat'	L	l	<i>lúgwi</i> 'door'
g	g	<i>gwa</i> 'fall, drop'	W	w	<i>wela</i> 'grunt'
m	m	<i>mthí</i> 'day, daytime'	J	y	<i>yáa</i> 'spend night'
n	n	<i>nungúri</i> 'porcupine'	mb	mb	<i>mbuta</i> 'water jar'
ŋ	ng'	<i>ng'ola</i> 'uproot'	mv	mv	<i>mvono</i> 'affluence'
ɲ	ny	<i>nyényéfu</i> 'hiccup'	nd	nd	<i>ndori</i> 'few'
r	r	<i>rihá</i> 'pay'	ndh	ndh	<i>ndhata</i> 'stick'
β	bh	<i>bhábhá</i> 'bitter, sour'	ng	ng	<i>nguto</i> 'leopard'
f	f	<i>fúhi</i> 'brief, short'	nj	nj	<i>njúghá</i> 'iron balls'

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θ	th	<i>thúá</i> 'refuse'			

As it can be seen, Chasu lacks some consonant phonemes, which are found in other ECLs. In fact, it lacks some fricatives such as /v/, /s/, and /z/. Note, however, that although the language has no voiced labio-dental fricative /v/, there is a pre-nasalized consonant /mv/. This situation raised a question whether /mv/ is a native or foreign sound. Winford (2003: 53) posits that due to lexical borrowing, sometimes new sounds and morphemes can be introduced into the borrowing language. On this ground, it is arguable that this sound has been introduced into the language through loanwords such as *mvua* 'rain' from Swahili. However, there are very few words with this sound such as the following: *mvu* 'wasp', *mvumo* 'Borassus palm'; *mvwa* 'thorn' (Mreta, 2008).

### Vowel Phonemes

Chasu has five basic vowel phonemes, which are similar to those in most Bantu languages such as Kiswahili, Kigweno among others. In Chasu, the vowels can occur word initially, medially (before or after a consonant or another vowel) or finally. These vowels include; /a/, /e/, /i/, /o/ and /u/ as presented in the vowel trapezium.

**Chasu Vowel Trapezium**

Adapted from: Mreta (1998)

**Nominal Morphology**

Chasu nouns are typical of the Bantu nominal system. In fact, like in other Bantu languages, Chasu nouns are categorized into classes on the basis of their semantic saliency. However, in cases where semantics fails, the morphological and syntactic factors are taken into consideration. Some of the classes (for instance, 1-2, 3-4, 5-6, 7-8, 9-10 and 12-13) are in pairs, that is, singular and plural counterparts while others (such as 11, 14, 15 and 16) are not. Since Chasu has no pre prefix, the structure of a noun consists of a prefix and a stem. Each class is identified by a specific prefix, which functions as a class marker. Table 2 presents Chasu noun classes.

**Table 2: Chasu Nominal: Morphology and its Agreement**

CL	Prefix	Examples	Gloss	S/aff	O/aff	Adj.agr	Semantic Features
1 1a 2	m(u)- Ø βa -	<i>mndu</i> <i>éngá</i> <i>bandu</i>	person aunt persons	é- /á- é- /á- βé- /βá-	-m(u)- /-mw- -m(u)- -βá-	m- m- βá-	Humans and their professions Kinship relations
3 4	m(u)- mi-	<i>mfitu</i> <i>mifitu</i>	forest forests	ú- í-	-ú- -í-	m- mi-	Body parts, vegetation, tree and inanimate objects
5 6	i- ma-	<i>idiko</i> <i>madiko</i>	kitchen kitchens	lí- á- / é-	-lí- -á-	i- ma	Body parts, miscellaneous objects, fruits and animals
7 8	ki- βi-	<i>kiratu</i> <i>βiratu</i>	shoe shoes	ʃ (í) / -í βí-/βj-	-ki- - βí-	ʃ(e) βj-	Miscellaneous object and artifacts, animals, body parts, pejoratives and human traits and/or disabilities
9 10	N- N-	<i>ɲoki</i> <i>ɲoki</i>	bee bees	i- ji-	-i- - ji-	je j(e)	Animal, inanimate nouns
11	lu-	<i>lumi</i>	tongue	lú-	-lú-	lú-	Thin and long objects, abstract things

12 13	ka- bu-	<i>kaguro</i> <i>buguro</i>	a small dog a small dogs	ká- / ké- bu-	-ká- -bu-	ká- bu-	Diminutives
14	bu-	<i>bukea</i>	Theft	bu-	-bu-	bu-	Abstract things
15	ku-	<i>kuru</i>	Foot	kú/kw	-kú-	kw	Verbal nouns, some nouns with a prefix ku-
16	ha-	<i>hae</i>	distant	há- / hé-	-há-	hé-	Locative nouns

It should be noted that, in Chasu class 13 and 14 have the same class marker that is, a prefix *bu-*. However, the prefix *bu-* in class 13 is a plural marker of a prefix *ka-* in class 12, which is mainly used for diminutive nouns. On the contrary, the prefix *bu-* in class 14 is used specifically for abstract nouns.

### **Theoretical Consideration**

As stated in the previous section, loanwords are subjected to both phonological and morphological adjustment to conform to the recipient language's (RL) system. Thus, for proper and systematic analysis of data, this paper is guided by two theoretical approaches namely, The Theory of Constraint and Repair Strategy (TCRS) (Paradis & Lacharité, 1997) and Assimilation Theory (McMahon, 1994; Campbell, 1998; Winford, 2003). This theory holds that the presence of universal and non-universal phonological constraints across languages trigger the application of repair strategy especially when those constraints are violated. As such, the language can either delete or insert a segment. The TCRS is more relevant to phonological adaptation. However, it cannot explain some of the phonological changes such as gliding and phonemic change.

The latter theory holds that in contact situation, speakers of the RL import words, some of which acquire phonological and morphological habits of their language. The theory posits further that, the strategies used to assimilate loanwords are not entirely irregular (see McMahon, 1994). Some of the strategies used in this theory include deletion, substitution, epenthesis, vowel lengthening, stress arrangement among other. Nevertheless, the theory does not pinpoint the specific strategies to be in different contact situation.

It is important to note that despite their weaknesses, the reason for using both theories is to capture both phonological and morphological strategies employed. That is, TCRS is used to explain phonological strategies while Assimilation is used to capture morphological strategies.

### **Methodology**

Data for this study were obtained from two sources, that is, Kamusi ya Chasu-Kiingereza-Kiswahili (Mreta, 2008), in which a list of 687 words were selected plus the fieldwork conducted in Chemka and Rundugai villages in Hai District in Kilimanjaro Region. In the former case, since the dictionary does not distinguish loanwords from

native vocabulary, only words that were suspected to have been borrowed were selected. Then, the words were crosschecked with the list of proto Bantu vocabularies to ensure that they were not cognates. This is because, identifying loanwords from other Bantu languages is in most cases problematic since they are sometimes indistinguishable from cognates (Schadeberg, 2009). After crosschecking the words, the native speakers were consulted to verify whether the words are actual loans, native vocabulary and whether they have equivalents in the language. This helped in identifying the purpose of adapting loanwords, that is, to fill lexical gap or for prestige.

## Adaptation Strategies

### Phonological Adaptation

As stated earlier, due to phonological variations across languages, languages have developed various strategies to accommodate loanwords into their native vocabulary. These strategies are largely motivated by phonotactic constraints, phonemic reasons and partly by morphological reasons. In Chasu, loanwords are incorporated into the language through the following strategies.

### Epenthesis

Epenthesis is another common strategy for adapting loanwords into Chasu. It involves the insertion of a sound segment within a word. The segment inserted is in most cases a vowel, consonant, or syllable. In Chasu, the epenthetic segment is sometimes inserted due to phonotactic constraints. For example, the language does not allow consonant clusters such as 'bl', 'gl', 'ks', 'lh', and 'sk'. Therefore, all loanwords with such consonant clusters are subjected to this process. This is exemplified in (1a-c) using loanwords from English. In these words, a vowel is inserted to break the illicit consonant cluster.

	<b>Loanword</b>	<	<b>English</b>	<	<b>Kiswahili</b>	<b>Gloss</b>
(1)	a. <i>iburangéti</i>	<	<i>blanket</i>	<	<i>blanketi</i>	'blanket'
	b. <i>buluu</i>	<	<i>blue</i>	<	<i>bluu</i>	'blue'
	c. <i>gilathi</i>	<	<i>glass</i>	<	<i>glasi</i>	'glass'

In other cases, epenthesis is used for restructuring purposes, that is, to make a loanword conform to the language's syllable structure and sounds like a native one (thus ensuring minimal perceptual correspondence). Although Chasu allows words with various syllable structures such as V, CV, CVC among others, it seems that the most preferred structure is CV. On this basis, a consonant or vowel is



inserted into loanwords in order to adhere to this structure as in Swahili loanwords in (2a-c) below. Nevertheless, it is important to note that in both cases, the inserted segment triggers off no semantic changes in a word.

	<b>Loanword</b>	<	<b>Kiswahili</b>	<b>Gloss</b>
(2) a.	<i>tumbura</i>	<	<i>tumbua</i>	‘pierce’
b.	<i>kiratu</i>	<	<i>kiatu</i>	‘shoe’
c.	<i>kibiyóngo</i>	<	<i>kibiongo</i>	‘hunch’

### Deletion

Loanwords are also incorporated into Chasu through the deletion of segment(s) at any position of a word. The deleted segment can be a vowel, a consonant or a syllable. However, unlike in other Bantu languages such as Swahili in which the deleted segments (especially consonants) are normally germinate (cf. Mwita, 2009); and Nandi, which normally deletes consonants, which are not in its phonemic inventory (cf. Boen 2014); in Chasu the justification for deletion is somewhat contradictory. The plausible justification for deletion is due to either historical reasons (cf. Mreta, 1998) or morphological reasons. Nevertheless, historical reasons can only be used to account for the deletion of /l/.

	<b>Loanword</b>	<	<b>Kiswahili</b>	<b>Gloss</b>
(3) a.	<i>kii</i>	<	<i>kilio</i>	‘mourning’
b.	<i>mwaí</i>	<	<i>mwali</i>	‘bride’
c.	<i>kionda</i>	<	<i>kidonda</i>	‘injury/ulcer’
d.	<i>mbéu</i>	<	<i>mbegu</i>	‘seeds’

As it can be seen, Chasu normally deletes intervocalic consonants (especially /l/) between identical vowels due to feature identity between liquids and vowels as in (3a). However, the data show that /l/ is deleted in the intervocalic position regardless of whether the vowels are identical or not as indicated in (3b).

In other cases, for instance (3) (c) and (d), the deletion of segments is uncertain since they cannot be accounted for on either phonological or morphological basis. This suggests what Peperkamp (2004) refers to as ‘unnecessary modification’ in which the adaptation strategies repair no ill-formed structure.

### Adoption

There are instances in which the loanword(s) undergo no changes when they are adopted into Chasu. In this situation, a loanword retains its (syllable) structure, pronunciation as well as the meaning (i.e. the words remain as they were in the donor language). However, in this case, when the adopted words are used in Chasu, they are treated as part of the native vocabulary as exemplified in (4a–d).

	<b>Loanword</b>	<	<b>Kiswahili</b>	<b>Gloss</b>
(4) a.	<i>chafu</i>	<	<i>chafu</i>	‘dirty’
b.	<i>chai</i>	<	<i>chai</i>	‘tea’
c.	<i>waya</i>	<	<i>waya</i>	‘wire’
d.	<i>urithi</i>	<	<i>urithi</i>	‘inheritance’

Note, however, that the adoption is not a peculiar case in Chasu alone, but also in other languages such as Swahili, Gorowa and Iraqw (see Harvey & Mreta, 2016).

### Tone Assignment

Chasu is inherently a tonal language with two levels of tone (high and low tone) assigned to vowels and syllabic nasals. The words borrowed from non-tonal language are assigned tones as a means of incorporating them into Chasu’s native vocabulary, as well as conforming to the language’s tonal system. As pointed out earlier, since the majority of words are borrowed from Swahili, which by its nature is non-tonal, all loanwords (except the adopted ones) are assigned various tones as illustrated in examples (5a–d).

	<b>Loanword</b>	<	<b>Kiswahili</b>	<b>Gloss</b>
(5) a.	<i>dhúlúmá</i>	<	<i>dhuluma</i>	‘unjust’
b.	<i>kágúa</i>	<	<i>kagua</i>	‘inspect’
c.	<i>pámhá</i>	<	<i>pamba</i>	‘cotton’
d.	<i>hélá</i>	<	<i>hela</i>	‘money’

Most frequently, the assignment of tone in loanwords (as in (5a–d)) triggers off no semantic change. However, in some cases, especially when a loanword has more than one meaning, the assignment or reposition of tone, results in semantic broadening. For example, Modern Swahili Dictionary (2004) shows that words such as *ngoma*<sup>1</sup> ‘drum’, *kaka*<sup>2</sup> ‘brother’ and *kana*<sup>3</sup> ‘deny’ have multiple meanings.

<sup>1</sup> Ngoma ‘drum; dance’.

<sup>2</sup> Kaka ‘a shell (of an egg or matchbox); whitlow; elder brother’.

<sup>3</sup> Kana ‘denounce; tiller; as if, as though’.

But, in Chasu, of all the meaning of the loanwords, the one which is the most frequently used is retained and the language introduces a new meaning. In each example in (6), the first meaning is the original one, while the second is the added meaning due to tone assignment.

	<b>Loanword</b>	<	<b>Gloss</b>	<b>Kiswahili</b>	<b>Gloss</b>
(6) a.	<i>ngoma</i>	<	‘drum’	<i>ngoma</i>	‘drum’
	<i>Ngómá</i>	<	‘spirit (of a dead person)’		
b.	<i>káka</i>	<	‘brother’	<i>kaka</i>	‘brother’
	<i>káká</i>	<	‘grandfather’		
c.	<i>kána</i>	<	‘deny’	<i>kana</i>	‘deny’
	<i>kaná</i>	<	‘or’		

It is important to note that since the language has two tones, only high tone is marked. This also applies to loanwords adapted via tone assignment.

### Substitution (Transphonemization)

This refers to a process in which a foreign phoneme is substituted by a native one. This is also a common strategy for adapting loanwords into Chasu due to the fact that languages differ tremendously in their phonemic inventories. In Chasu, transphonemization is applied for various reasons. On the one hand, some sounds are transphonemized, not because they are not in the phonemic inventory of the language but due phonological processes such as spirantisation. For example, voiceless palatal affricate [tʃ] from Swahili loans is sometimes realized as voiceless dental fricative [θ].

	<b>Loanword</b>	<	<b>Kiswahili</b>	<b>Gloss</b>
(7) a.	<i>mbiθí</i>	<	<i>mbifí</i>	‘raw’
b.	<i>θóma</i>	<	<i>tʃoma</i>	‘read’
c.	<i>kiθaká</i>	<	<i>kitʃaka</i>	‘thicket’
d.	<i>θákaa</i>	<	<i>tʃakaa</i>	‘wear out’

In some cases, voiced velar plosive [g] from Swahili etymon becomes voiced velar fricative [ɣ] when adapted into Chasu, especially when it is preceded by a nasal sound [m] and followed by a vowel, or when it occurs intervocalically, as indicated in (8a–d).

	<b>Loanword</b>	<	<b>Kiswahili</b>	<b>Gloss</b>
(8) a.	<i>mɣeni</i>	<	<i>mgeni</i>	‘guest’
b.	<i>mboɣo</i>	<	<i>mbogo</i>	‘buffalo’

c.	<i>mbora</i>	<	<i>mboga</i>	‘side-dish’
d.	<i>mxongo</i>	<	<i>mgongo</i>	‘backbone’

Voiceless bilabial plosives [p] from Swahili etymon often change to glottal fricative [h] when they are used into Chasu as in (9a–e) below.

	<b>Loanword</b>	<	<b>Kiswahili</b>	<b>Gloss</b>
(9)	a. <i>mhaka</i>	<	<i>mpaka</i>	‘border’
	b. <i>heta</i>	<	<i>peta</i>	‘winnow’
	c. <i>táhika</i>	<	<i>tapika</i>	‘vomit’
	d. <i>mhini</i>	<	<i>mpini</i>	‘handle’
	e. <i>fuhi</i>	<	<i>fupi</i>	‘short’

Words that have descended from a common source (i.e., common origin) normally demonstrate regular systematic correspondences and usually, display semantic similarities. These examples clearly indicate that phoneme /h/ is a reflex of sound /p/. The sense of borrowing from one language to the other does not apply here.

In addition, voiced palatal plosive [j] becomes voiced dental fricative [ð] when it occurs either intervocalically or between a consonant and a vowel, and it never occurs in the initial position. It is important to note that in example 10 (b–d), the vocabularies were adapted to fill the lexical gap, except for a word *máði* ‘water’ in example 10 (a). The justification for adapting *máði* ‘water’ could be for prestige. This is because, there is a native vocabulary *mbombe* for water.

	<b>Loanword</b>	<	<b>Kiswahili</b>	<b>Gloss</b>
(10)	a. <i>máði</i>	<	<i>maji</i>	‘water’
	b. <i>nðia</i>	<	<i>njia</i>	‘path’
	c. <i>mði</i>	<	<i>mji</i>	‘town’
	d. <i>kuða</i>	<	<i>kuja</i>	‘to come’

In light of these examples in (7a–d), (8a–e), (9a–e), (10a–d), it can be argued that in addition to the phonological process (i.e. spirantisation), substitution is also a result of the nativization process. This means that language needs to ensure minimal perceptual correspondence as well as to reduce the habit of adoption.

In other cases, lateral approximant [l] from loanwords becomes a trill [r] when they are adapted into Chasu. This can be accounted for, by historical reasons. Literature shows that historically, Chasu has lost intervocalic consonants between identical vowels (cf. Mreta 1998:

46). Therefore, loanwords with the same features undergo the same process as indicated in (11a-c) using Swahili loanwords.

	<b>Loanword</b>	<	<b>Kiswahili</b>	<b>Gloss</b>
(11) a.	<i>mchere</i>	<	<i>mchele</i>	‘rice’
b.	<i>mwiri</i>	<	<i>mwili</i>	‘body’
c.	<i>mbiri</i>	<	<i>mbili</i>	‘two’

However, it seems that there are instances in which this kind of substitution is not supported by historical reasons. For example in (12a), /l/ changes to /r/ in intervocalic position (but the vowels are not identical). Again, in (12b) and (c) it changes into /r/ in initial position. On this ground, it is arguable that in addition to historical reason, it is plausible that the language does not favor loanwords with /l/ sound. Therefore, all loans with this sound in either position are automatically subjected into this process unless, the word has been adopted as in (12d) or other processes have already happened as in (12e).

	<b>Loanword</b>	<	<b>Kiswahili</b>	<b>Gloss</b>
(12) a.	<i>mari</i>	<	<i>mali</i>	‘wealth’
b.	<i>ringana</i>	<	<i>lingana</i>	‘match’
c.	<i>rinda</i>	<	<i>linda</i>	‘guard’
But: d.	<i>meli</i>	<	<i>meli</i>	‘ship’
But: e.	<i>mθalába</i>	<	<i>msalaba</i>	‘cross’

On the other hand, transphonemization is also used to replace the sounds, which are not in the phonemic inventory of Chasu. As pointed out in section 2.1.1, Chasu lacks some consonant phonemes such a fricative /v/, /s/, and /z/. In this case, these phonemes are substituted with the nearest equivalent phonemes into the language either in terms of place of articulation or manner of articulation. Most commonly, the voiceless alveolar fricative [s] from loanwords becomes voiceless dental fricative [θ] and the voiced alveolar fricative [z] becomes voiced dental fricative [ð] in Chasu. Consider the following loanwords from Swahili in (13a-f).

	<b>Loanword</b>	<	<b>Kiswahili</b>	<b>Gloss</b>
(13) a.	<i>θikia</i>	<	<i>sikia</i>	‘listen’
b.	<i>karataθi</i>	<	<i>karatasi</i>	‘paper’
c.	<i>leθeni</i>	<	<i>leseni</i>	‘license’
d.	<i>naðí</i>	<	<i>nazi</i>	‘coconut’
e.	<i>ðeruðéru</i>	<	<i>zeruzeru</i>	‘albino’

f.      *kiǎǎdi*      <      *kizazi*      ‘uterus’

In other cases, a voiced alveolar fricative [z] from loanwords becomes voiced palatal plosive [j] as exemplified in (14a) and (b); and voiced labiodental fricative /v/ becomes voiced bilabial fricative [β] as illustrated in (14c) and (d).

	<b>Loanword</b>	<	<b>Kiswahili</b>	<b>Gloss</b>
(14) a.	<i>mweji</i>	<	<i>mwezi</i>	‘moon/month’
b.	<i>jika</i>	<	<i>zika</i>	‘burry’
c.	<i>βuna</i>	<	<i>vuna</i>	‘harvest’
d.	<i>wabu</i>	<	<i>wavu</i>	‘net’

Besides, in cases where several of the mentioned phonemes (s, v, and z) are present in a single loanword, they are substituted all together as in (15a) and (b).

	<b>Loanword</b>	<	<b>Kiswahili</b>	<b>Gloss</b>
(15) a.	<i>θindikija</i>	<	<i>sindikiza</i>	‘accompany’
b.	<i>βidia</i>	<	<i>vizia</i>	‘ambush’

It is worth noting that except when loanwords are adopted, transphonemization affects all loanwords with the mentioned phonemes regardless of the position of the sound. More importantly, it should be understood that transphonemization commonly operates to consonants and not vowels. This is because the vowel system of Chasu is similar to that of Swahili, from which most of the words are adapted.

### **Combination of Strategies**

As already discussed and demonstrated in the previous parts, some words are adapted into Chasu by employing one strategy. However, there are instances in which a combination of strategies is employed in a single lexical item as a means of incorporating it into Chasu vocabulary. These strategies are employed due to the same reasons as those stipulated in the previous parts. The strategies include the following:

#### ***Prosthesis + transphonemization + tone assignment***

Some of the Swahili etymons are adapted into Chasu by both addition and substitution of sound segment, as well as assigning a tone. In this process, the inserted segment is in most cases a vowel as exemplified in (16a–d).

	Loanword	<	Kiswahili	Gloss
(16) a.	<i>ibéngu</i>	<	<i>wengu</i>	‘spleen’
b.	<i>igeréða</i>	<	<i>gereza</i>	‘prison’
c.	<i>iθandúku</i>	<	<i>sanduku</i>	‘box’
d.	<i>ikoθá</i>	<	<i>kosa</i>	‘misdeed/error’

### ***Prosthesis + transphonemization + anaptyxis***

This strategy is similar to the previous one (3.1.7.1) except it lacks tone assignment. Besides, unlike the former strategy, in this strategy, a sound segment is inserted initially and medially. The inserted segment is either a consonant or vowel as in (17). However, words adapted through this strategy are very rare.

	Loanword	<	Kiswahili	Gloss
(17)	<i>ipapaju</i>	<	<i>papai</i>	‘pawpaw’

### ***Prosthesis + transphonemization***

In some cases, loanwords are adapted into Chasu through addition and substitution of foreign phonemes (cf. section 3.1.2 and 3.1.6). A native phoneme (normally a vowel) is added as a morphological requirement, that is, gender assignment, while the foreign phonemes are substituted so as to conform to language’s phonemic inventory. This is illustrated using Swahili loans in (18a) and (b).

	Loanword	<	Kiswahili	Gloss
(18) a.	<i>ifeneθi</i>	<	<i>fenesi</i>	‘jackfruit’
b.	<i>inanaθi</i>	<	<i>nanasi</i>	‘pineapple’

### ***Syncope + transphonemization***

While the former strategy involves both insertion and substitution, in this strategy loanwords are adapted through elision and substitution of a sound segment. The elision of segment is due to phonological reasons such as to reduce feature redundancy as in (19a) and phonotactic constrains as in (19b). In (19b), /h/ has been deleted because Chasu does not allow the cluster ‘lh’. For the case of substitution, non-native phoneme, for example the English palatal stop /c/ becomes velar stop /k/ in Chasu as in (20), while the Swahili voiceless alveolar fricative /s/ and voiced alveolar fricative /z/ become dental fricatives /θ/ and /ð/, respectively as indicated in (19a) and (b).

	Loanword	<	Kiswahili	Gloss
(19) a.	<i>Kingeréða</i>	<	<i>Kiingereza</i>	‘English’

	b.	<i>Aliamiθi</i>	<	<i>Alhamisi</i>	‘Thursday’
		<b>Loanword</b>	<	<b>English</b>	<b>Gloss</b>
(20)		<i>kastiroli</i>	<	<i>castor oil</i>	‘Castor oil’

It is important to note that the arrangement of these strategies does not in any case imply that these changes follow a particular order. In fact, it is uncertain whether the restructuring process occurs simultaneously or sequentially.

### Morphological Adaptation

As pointed out earlier in section 2.2, like in other Bantu languages, in Chasu, nouns are grouped into classes commonly known as noun classes. In this regard, all loanwords are assigned different classes in order to conform to Chasu’s noun class system. Loanwords are adapted into Chasu through the following process:

### Prefixation

This involves the addition of a morpheme to the initial position of a root or stem. Prefixation is commonly used to adapt nouns, which have [Ø] class marker from both Bantu and non-Bantu languages. Although most of Bantu loans have a class marker, there are others (possibly of Arabic origin), which lack class markers. Therefore, when these loans are adapted into Chasu, they are assigned different class markers and classified into the respective classes. The most commonly added prefixes (class markers) are; *i-*, *βu-*, *ka-*, and *lu-*. This is because these prefixes represent different class markers in Chasu noun class system. The addition of these prefixes into loanwords is determined by the semantic saliency of a given word. Consider the Swahili loans in (21a–e).

	Loanword	<	Class	Kiswahili	Class	Gloss
(21) a.	<i>i-θíkio</i>	<	5/6	<i>sikio</i>	5/6	‘ear’
b.	<i>i-báta</i>	<	5/6	<i>bata</i>	1/2	‘duck’
c.	<i>i-émbe</i>	<	5/6	<i>embe</i>	5/6	‘mango’
d.	<i>i-dirísha</i>	<	5/6	<i>dirisha</i>	5/6	‘window’
e.	<i>kadama</i>	<	12/13	<i>ndama</i>	1/2	‘a new born calf’

It is evident that all nouns in (21a–d) have the semantic characteristics of class 5/6, while a noun in (21e) has the characteristics of class 12/13 in Chasu. Note that the added prefix is normally the one, which is in singular form. There are instances in which loan allocation on the basis of prefixation does not adhere to



semantic characteristics of a given class (that is, class 12/13) as in (22).

	<b>Loanword</b>	<	<b>Class</b>	<b>Kiswahili</b>	<b>Class Gloss</b>
(22)	<i>ka-póchi</i>	<	12/13	<i>pochi</i>	9/10 'leather purse'

The addition of prefix *ka-* in (22) is not in any way motivated by the semantic characteristics of class 12/13, but it could be either due to loan translation of the word '*pochi*' or individual preferences. Interestingly, although the noun takes the agreement pattern of the respective class (in this case class 12/13), it is not inherently diminutive in nature as it can be seen on the gloss. Compare the meaning of the noun in (22) with those in (21e) and (23).

	<b>Loanword</b>	<	<b>Class</b>	<b>Kiswahili</b>	<b>Class Gloss</b>
(23)	<i>ka-bánda</i>	<	12/13	<i>kibanda</i>	7/8 'small house'

In light of these examples, it is plausible to argue that there are exceptions (although rare) in which the added class marker in a loanword does not fully assimilate it into a respective class.

### Substitution

Loanwords are also assigned classes by substituting a foreign class marker (from other Bantu languages) with that of Chasu. Although this is not frequently applied compared to prefixation, it is used in some Swahili loans as indicated in (24a-d).

	<b>Loanword</b>	<	<b>Class</b>	<b>Kiswahili</b>	<b>Class Gloss</b>
(24) a.	<i>lúmi</i>	<	11	<i>ulimi</i>	11/12 'tongue'
b.	<i>lungo</i>	<	<i>ungo</i>	11/12	'winnowing tray'
c.	<i>bufundi</i>	<	14	<i>ufundi</i>	11/12 'skill'
d.	<i>bushirikina</i>	<	14	<i>ushirikina</i>	11/12
	'superstition'				

As it can be seen, the Swahili class marker *u-* has been replaced by *lu-* and *bu-* respectively. Like in prefixation, the replacement of *u-* by *lu-* and *bu-* has been triggered off by the semantic characteristics of a loanword. Specifically, loanwords in (24a) and (b) have the semantic features of class 11 which trigger the use of the prefix *lu-*, while loanwords in (24c) and (d) have the features of class 14, hence the use of prefix *bu-* which is a class 14 marker. It is important to note that substitution is possible only if a noun has semantic features and agreement patterns of a given class.

Some loanwords are assigned classes without employing either prefixation or substitution. In these cases, the class assignment is triggered off by their semantic characteristics, agreement patterns or class markers.

### Semantic Features and Agreement Patterns

Loanwords are assigned classes if they exhibit features which are semantically salient to a particular class, for instance being animate as in (25a) and (b) or inanimate as in (25c) and (d). In addition to semantic their characteristics, a loanword should also have the agreement pattern of a respective class. This is used to classify loanwords in all classes as exemplified in (25a-d).

	Loanword	<	Class	Kiswahili	Class	Gloss
(25) a.	<i>aθikofu</i>	<	1/2	<i>askofu</i>	1/2	'bishop'
b.	<i>mwálimu</i>	<	1/2	<i>mwalimu</i>	1/2	'teacher'
c.	<i>barua</i>	<	9/10	<i>barua</i>	9/10	'letter'
d.	<i>ḍawádi</i>	<	9/10	<i>zawadi</i>	9/10	'gift'

Although this strategy involves the use of both semantic and agreement patterns, the primarily attention is paid on the agreement pattern.

### Class Marker

Despite the fact that Bantu languages differ in their noun class system (especially in terms of class marker) some loanwords have prefixes, which coincidentally resemble those of Chasu. In this regard, a loanword with class marker similar to that of Chasu is classified into the respective class by default. This is evident in Swahili loans in (26).

	Loanword	<	Class	Kiswahili	Class	Gloss
(26)a.	<i>ki-biriti</i>	<	7/8	<i>kibiriti</i>	7/8	'matchbox'
b.	<i>ki-chánja</i>	<	7/8	<i>kichanja</i>	7/8	'wickerwork stand for utensils'
c.	<i>ki-ratu</i>	<	7/8	<i>kiatu</i>	7/8	'shoe'

All nouns in (26a–c) are classified in class 7/8 in Chasu by virtue of having typical class 7/8 markers. It is important to note, however, that this is not normally the general rule for classification since it is evident that there are cases in which a loanword has a given class prefix but it is assigned a different class. Besides, not all initial

syllables in words act as class markers. Consider the following Swahili loans in (27).

	Loanword	<	Class	Kiswahili	Class	Gloss
(27) a.	<i>kufúli</i>	<	9/10	<i>kufuli</i>	9/10	'padlock'
b.	<i>kúra</i>	<	9/10	<i>kura</i>	9/10	'votes'
c.	<i>karánga</i>	<	9/10	<i>karanga</i>	9/10	'groundnuts'

As it can be seen, one can be tempted to generalize that nouns in (27a) and (b) have a typical class 15 marker while in (27c) it has class 12/13 marker. Therefore, on the basis of their initial syllables, which resemble class markers, one is likely to classify these nouns in class 12/13 (for (27a) and (b)) and class 15 (for (27c)), respectively. However, on the basis of their agreement patterns, they are classified in class 9/10 as illustrated in (28).

- (28) a.     \**karánga kabunwa*  
           *karánga ka-bun-w-a*  
           9-groundnuts12AGR-harvest-PASS-FV  
           'Groundnuts have been harvested'
- b.     \**karánga babunwa*  
           *karánga ba-bun-w-a*  
           10-groundnuts     13AGR-harvest-PASS-FV  
           'Groundnuts have been harvested'
- c.     *karánga jabunwa*  
           *karánga ja-bun-w-a*  
           9-groundnuts9-AGR- harvest-PASS-FV  
           'Groundnuts have been harvested'
- d.     *karánga jabunwa*  
           *karánga ja-bun-wa*  
           10-groundnuts     10-AGR- harvest-PASS-FV  
           'Groundnuts have been harvested'

The ungrammaticality of (28a) and (b) resulted from the inconsistent agreement between class 9/10 and 12/13. In Chasu and Bantu languages in general, nouns normally agree with the prefixes in the same class. More importantly, even in the same class, the prefix with the subject or object marker should be of the same nature, that is, if the prefix is in singular so should the object or subject marker.

In light of the mentioned strategies (prefixation, substitution among others), it can be argued that in Chasu, loanwords are assigned classes primarily on the basis of their agreement pattern. Other factors such as semantic and morphological (class marker) criteria are used as supplements. More importantly, most loanwords are hosted in class 9/10, 7/8, 5/6 among others.

### Conclusion

This paper has presented the strategies employed by Chasu to adapt loanwords. It was revealed that most commonly loanwords are adapted phonologically and morphologically. And, in some few cases they are adopted with their structure and meaning intact. The paper established that phonologically, words with phonemes that do not conform to language's phonemic inventory are substituted with the native phonemes while other loanwords are subjected into other processes such as deletion, addition for naturalization as well as conforming to the language's phonotactic constraints. It is also evident that the ultimate purpose for adapting loanwords into Chasu is to fill lexical gap. Based on the number of adapted and adopted words, the paper postulates that there is the likelihood of introduction of new phoneme into Chasu phonemic system. The paper also revealed that morphologically, loanwords (especially nouns) are assigned classes on the basis of their agreement pattern (in supplement to semantic saliency) regardless of the presence or absence of a given class marker. In addition, prefixation and substitution was noted to play a crucial role in class assignment.

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