PHONOLOGICAL AND SEMANTIC CHANGE IN LANGUAGE BORROWING

The Case of Arabic words Borrowed into Kiswahili

By Dr. Mohamed Abdulmajid Akidah Department of Linguistics and Languages University of Nairobi P.O. Box 30197, 00100 Nairobi. Cellphone: 0724 82 89 47 E-mail: makida@uonbi.ac.ke

ABSTRACT

This research paper examines the various phonological and semantic changes that take place in Arabic words borrowed into Kiswahili. The relationship between Arabic and Kiswahili, two languages which belong to two different language families, has been the subject of study by scholars for a long period of time. The main objective of this study is to examine the various phonological and semantic processes involved in the process of borrowing words from Arabic into Kiswahili. Data is sampled from the Kiswahili dictionary, *Kamusi ya Karne ya 21*. The data is then analyzed for phonological and semantic changes. The discussion concludes that there is a high frequency of words of Arabic origin in Kiswahili, which are a product of borrowing. The borrowing process often leads to phonological adaptation of Arabic words as they get absorbed into the Kiswahili lexicon, and is sometimes accompanied by semantic changes such as broadening, narrowing and shift.

Key words: Borrowing, Epenthesis, Degermination, Broadening, Narrowing, Pejoration, Amelioration, Shift

1.0 Introduction

Language change is a common phenomenon among communities. All languages are bound to change, and such change may be attributed to factors such as economy, contact and cultural environment. Speakers often articulate words much more economically, which results in the reduction of speech forms. In terms of analogy, word forms get reduced by likening different forms of the word. Language change may also be a result of contact with other languages, where words get borrowed from a source language into a target language, leading to sounds and sound combinations which did not previously exist in the source language. Often, such loanwords get assimilated into the existing phonological structure of the target language.

Arabic is a Semitic language spoken by between 350-400 million speakers across the globe, while Kiswahili, a Bantu language, is spoken by about 100 million speakers mainly in the eastern and southern regions of Africa. Many studies have been conducted to establish the relationship between the two languages, but none I know of has provided a comprehensive analysis of the phonological and semantic changes that take place in the two languages as a result of borrowing. This study is therefore aimed at filling this gap by exploring the various changes in phonology and semantics that take place in Arabic words borrowed into Kiswahili. These changes may be induced in full or in part by contact. The presence of change leads to what is often referred to as 'adaptation'.

This study is limited to Arabic and Kiswahili languages, and the subsequent phonological and semantic changes that accompany the borrowing process. The phonological changes discussed are: consonant and vowel epenthesis, consonant deletion, consonant substitution, vowel lowering and vowel strengthening, while semantic changes are semantic broadening, narrowing, pejoration, amelioration and shift. The study concludes that the process of borrowing words from Arabic into Kiswahili is systematic and leads to adaptation of Arabic words as they get absorbed into the Kiswahili lexicon.

2.0 Borrowing

This is a process that involves incorporating features of one language to another. Borrowing can be studied from both synchronic and diachronic perspectives. Thomas and Kaufman (1988:37) have defined borrowing as 'the incorporation of features into a group's native language by speakers of that language; the native language is maintained but is changed by the addition of the incorporated features'. Where language contact takes place in a bilingual context, words are usually the first elements to enter a recipient language. Thomas and Kaufman argue that where there is a strong long-term cultural pressure from source language speakers on the recipient language speakers, 'structural features may be borrowed as well as phonological, phonetic and systematic elements and even (though more rarely) features of the inflectional morphology'. (1988:37).

Kiswahili has borrowed a great deal from Arabic. Some analysts have argued that loanwords of Arabic origin in Kiswahili constitute about 30% of the entire Kiswahili lexicon, while others have suggested a higher percentage of up to 80%. For instance, in a study of foreign words present in Johnson's *Standard English-Swahili Dictionary*, Zawawi (1979:73) found a total of 3,006 words of

foreign sources. Out of these, 2,354 (80%) were of Arabic origin. My own study of the lexical entries in the Kiswahili dictionary, *Kamusi ya Karne ya 21* revealed that there are a total of 15,796 lexical entries out of which 3,202 are of Arabic origin. This constitutes about 20%, even though this is not to say that the dictionary carries all words of Arabic origin in Kiswahili.

Kiswahili has borrowed from Arabic lexical terms of plants such as *mkahawa*, *alizeti*, *nanasi*, *tufaha*, *zabibu* etcetera. In business, there are words such as *tijara*, *faida*, *hisa*, *biashara*, *rasilmali* etcetera, while in religion, Kiswahili has borrowed words such as dini, *imani*, *itikadi*, *ibada*, *faradhi*, *sala* etcetera. There are also instances where single lexical items borrowed from Arabic enter into Kiswahili and get combined with other words to form single lexical entries in the Kiswahili dictionary. Examples include: *hedashara*, *kaditama*, *imafaima*, *ahlanwasahlan*, *kunradhi* etcetera.

3.0 Research Methodology

Data for this research was extracted from the Kiswahili dictionary, 'Kamusi ya Karne ya

21'. The total population of lexical entries of Arabic origin in the dictionary is 3,202. From these, we picked a sample size of 431 items which constitute about 13%, which, in our view, is representative enough. The sampling technique was stratified sampling in which we placed all the lexical items into various categories. We relied on our intuition as competent speakers of both Arabic and Kiswahili to analyze and verify data for the various phonological and semantic changes that take place during the process of borrowing. The data is categorized as follows:

(i) Arabic words with word final consonant clusters borrowed into Kiswahili.

(ii) Arabic long vowel words borrowed into Kiswahili.

(iii) Arabic words which exhibit semantic shift in Kiswahili.

(iv) Arabic words which show semantic broadening in Kiswahili.

(v) Arabic words which exhibit semantic narrowing in Kiswahili.

(vi) Arabic phrases borrowed into Kiswahili.

The data is reproduced here as Appendices A-F.

4.0 Results and Discussion

4.1 Phonological Changes of Arabic words borrowed into Kiswahili.

As stated earlier, Arabic is a Semitic language while Kiswahili is a Bantu language. The two languages are members of two different language families and so they also have different phonetic and phonological systems. To be able to understand the various phonological processes involved in the process of borrowing Arabic words into Kiswahili, we consider it useful to provide a brief outline of the phonetic systems of both languages before delving into the various phonological changes that take place.

4.1.1 The Sound System of Kiswahili

Kiswahili has 30 segmental phonemes; 5 vowels, 23 consonants and 2 semi-vowels. The five vowels are: /i, ϵ , a, u, σ / while the two semi-vowels are /w, y/. The rest of the consonants are /p, b,

m, f, v, θ , ð, t, d, n, p, s, z, l, r, j, \int , k, g, t \int , η , γ , h/. Additionally, Kiswahili has 2 diphthongs, /ai/ and /au/ which are exemplified in the following words:

Kiswahili word	Gloss
[aibu]	'shame'
[kauli]	'statement'

4.1.2 The Sound System of Arabic

Arabic has 34 segmental phonemes; 6 vowels (three short and three long vowels), 26 consonants and 2 semi-vowels (also called glides). The three short vowels are; /i, u, a/ which contrast phonemically with their longer counterparts, /iː, uː aː/. The two semi-vowels are /w, j/. The twenty six consonants are:

/b, m, f, θ , $\tilde{\partial}$, $\tilde{\partial}^{c}$, t, \underline{t}^{c} , d, \underline{d}^{c} , n, s, s^c, z, l, r, dz, J, k, x, y, q, \hbar , $\tilde{\gamma}$, η /. Arabic has 2 diphthongs, /aj/ and /aw/ exemplified below:

Arabic word	Gloss
[ʕajb]	'shame'
[qawl]	'saying'

4.2 Phonological Adaptation in Arabic words borrowed into Kiswahili

As stated earlier, when a word is borrowed into another language, the loanword undergoes certain modifications to fit into the phonological system of the recipient language. These modifications may result in either 'adaptation' (where the phonological composition of the loanword is modified) or 'adoption' (where loanwords get assimilated into the recipient language while preserving their original form and pronunciation in the donor language). The process of borrowing words from Arabic into Kiswahili is accompanied by adaptation of the Arabic words into the Kiswahili phonological system. In this section, we explain the various adaptation processes involved in the process of borrowing loanwords from Arabic into Kiswahili. Below are some of the phonological processes involved.

4.2.1 Epenthesis

Epenthesis refers to the process of inserting a phoneme (either vowel or consonant) in a word to break the consonant cluster system. It is usually motivated by the need to meet the phonotactic constraints of a recipient language. Consonant epenthesis involves the insertion of a consonant between vowels to form a consonant cluster. Furthermore, epenthesis also involves anaptyxis which refers to a process of inserting a vowel between consonants and results in a consonant cluster that is fairly easy to pronounce. Mwita (2009:51) argues that epenthesis involves 'a violation of faithfulness because the epenthetic segment has no counterpart in the input'. Vowel epenthesis in

Kiswahili loanwords borrowed from Arabic may be explained in view of the differences in the syllable systems of both languages.

On the one hand, the most common syllable system in Kiswahili is the CV syllable exemplified below:

(1)	titi	pita
	CVCV	CVCV

Also, Kiswahili has syllables with single vowels, such as:

(2)	k u a	c a
	CVV	VV

Another syllable structure in Kiswahili involves a pre-consonantal nasal where the nasals /m/ and /n/ function as syllable peaks as illustrated below:

(3)	m b u	n c h i
	CCV	CCCV

Mwita (2009:50) also points out that whereas it is possible to argue that Kiswahili has open syllables, it is nevertheless difficult to maintain this position when loanwords into Kiswahili are considered. According to him, 'the incorporation of loanwords into Kiswahili results in an expanded Kiswahili syllabry, that is, it has increased the use of other syllable structures which are not very common in this language such as CCV and CCCV'. Examples of the CCV syllable include:

(4) ŋ g a m i a m w e z i CCVCVV CCVCV

Based on the above illustration, we could posit that Kiswahili has three syllable types: CV, CCV and CCCV.

On the other hand, Arabic has five syllable patterns. These are CV, CVV, CVC, CVVC and CVCC which can be illustrated as follows:

(5)	b i	1 a :	q u m	diin	? ibn
	CV	CVV	CVC	CVVC	CVCC

When Kiswahili adopts a loanword with a closed syllable, the tendency is to insert a vowel between the consonants because Kiswahili prefers an open syllable structure to a closed one. The examples below show this phenomenon:

(6)	Arabic word	Kiswahili word
(i)	۲ilm ک	εlimu
	CVCC	VCVCV
(ii)	m a w t	mauti
	CVCC	CVVCV

It is possible to notice that most of the Kiswahili loanwords from Arabic above have word final consonant clusters and undergo vowel epenthesis. (see Appendix A).

With regards to consonant clusters, Kiswahili does not have except a few consonant clusters which result from borrowing. The clusters can be exemplified in the following words:

(7) Kiswahili word Gloss

(i)	hɔspitali	'hospital' (English loan)
	CVCCVCVCV	
(ii)	h u n t h a	'hermaphrodite' (Arabic loan)
	CVCCCV	

In most cases, Arabic words borrowed into Kiswahili undergo adaptation.

4.2.2 Consonant Deletion (Degermination)

This refers to the deletion of germinate consonants in Arabic. Mwita (2009:55) contends that 'the process of segment deletion, which is usually followed by vowel epenthesis, is meant to enforce the preservation of input segments in the output.' The following examples illustrate the process of consonant deletion in Arabic words borrowed into Kiswahili:

(9)	Arabic wor	d			Kiswahili word	Gloss
	Underlying	form	Phonetic fo	rm		
(i)	/Sammu/	\rightarrow	[ʕamm]	>	[ami]	'paternal uncle'
(ii)	/Jarru/	\rightarrow	[ʃarr]	>	[ʃari]	'evil'
(iii)	/ħaddu/	\rightarrow	[ħadd]	>	[hadi]	'up to'

4.2.3 Vowel Shortening

Kiswahili is a five-vowel language. The 5 vowels are: /i, ε , a, u, τ /. On the other hand, Standard Arabic is a six-vowel language with three short and three long vowels which are: /i, u, a/ and /i:, u:

a:/ respectively. When Arabic words containing long vowels are borrowed into Kiswahili, they go through a process of vowel shortening to conform to the vowel structure of Kiswahili. This process is motivated by the absence of long vowel counterparts in Kiswahili. The examples below illustrate this process.

(10)	Arabic wor	d			Kiswahili word	Gloss
	Underlying	form	Phonetic fo	rm		
(i)	/kitaːbu/	\rightarrow	[kitaːb]	>	[kitabu]	'book'
(ii)	/daliːlu/	\rightarrow	[daliːl]	>	[dalilu]	'sign'
(iii)	/zabuːru/	\rightarrow	[zabuːr]	>	[zaburi]	'Psalms'

4.2.4 Consonant Substitution

This is a process that takes place during borrowing and involves substituting consonants in the source language with others in the target language. It is usually attributed to the absence of equivalents in the target language. The data below illustrates the process of consonant substitution in Arabic words borrowed into Kiswahili:

(11)	Arabic word	l			Kiswahili word	Gloss
	Underlying form		Phonetic form			
(i)	/qaːnuːnu/	\rightarrow	[qaːnuːn]	>	[kanuni]	'rule'
(ii)	/xabaru/	\rightarrow	[xabar]	>	[habari]	'information'
(iii)	/Sajbu/	\rightarrow	[` ajb]	>	[aibu]	'shame'
(iv)	/ħifðu/	\rightarrow	[ħifð]	>	[hifaði]	'preservation'
(v)	/t [°] abiːbu/	\rightarrow	[tʿabiːb]	>	[tabibu]	'doctor'

The examples in (11) above show that in the process of borrowing, the Arabic consonants /q, x, \hat{y} , \hbar ,

t^s/ get substituted by /k, h, a, h, t/. Mwita (2009:58) refers to this process as feature change. Although the data he provides is valid, he overlooks the fact that Arabic words do not accept word initial vowels and so the examples he cites such as /aql/, /ibriq/ and /usquf/ should actually be stated as: [sql], [?ibri:q] and [?usquf] respectively. The changes shown above can be demonstrated in the distinctive feature matrices shown below:

/q/	\rightarrow /k/	/ħ/ →	/h/
+ cons	+ cons	+ cons	+ cons
+ high	- high	+ cont	+ cont
+ ant	+ ant	+ low	+ low
+ cor	+ cor	+ back	- back
- cont	- cor	- cor	- cor

As seen above, the segments /q, k/ differ only in the feature [high] and since /q/ is not present in the Kiswahili sound system, it is substituted with /k/ which is close in terms of their distinctive features. The same applies to the consonants /ħ/ and /h/.

4.2.5 Vowel Lowering

As stated earlier, Standard Arabic has three short and three long vowels. These are : /i, u, a/ and /i:,

u: a:/ respectively. Kiswahili, on the other hand, has five vowels; /i, ε , a, u, o/. During borrowing, there are instances where the high font vowel /i/ in the Arabic word gets lowered to the mid front vowel / ε / in Kiswahili with which it shares the value [-back]. The examples below illustrate this phonological process:

(12)	Arabic word				Kiswahili word	Gloss
	Underlying for	orm	Phonetic for	orm		
(i)	/Silmu/	\rightarrow	[` ilm]	>	[ɛlimu]	'knowledge'

(ii)	/ħisaːbu/	\rightarrow	[ħisaːb]	>	[hɛsabu]	'accounting'
(iii)	/ħikmatu/	\rightarrow	[ħikma]	>	[hɛkima]	'wisdom'
(iv)	/fidˤdˤatu/	\rightarrow	[fid̥ʿd̥ʿa]	>	[fɛða]	'silver'

This process is also evident in instances where the high front long vowel /a:/ in the Arabic word gets lowered to the mid front vowel ϵ / in Kiswahili words as shown below:

(13)	Arabic wo	rd		Kiswahili word	Gloss	
	Underlying	form	Phonetic f	orm		
(i)	/yiːratu/	\rightarrow	[ɣiːra]	>	[yɛra]	'an urge'
(ii)	/siːratu/	\rightarrow	[siːra]	>	[sɛra]	'policy'

4.2.6 Vowel Strengthening

This is a phonological process that involves raising the Arabic low central vowel /a/ to the mid-high vowel ϵ / in Kiswahili during borrowing as illustrated in the data below:

(14)	Arabic wor	rd			Kiswahili word	Gloss
	Underlying	form	Phonetic for	orm		
(i)	/maθalu/	\rightarrow	[maθal]	>	[mɛθali]	'proverb'
(ii)	/ħarfu/	\rightarrow	[ħarf]	>	[hɛrufi]	'letter'
(iii)	/dʒarħu/	\rightarrow	[dʒarħ]	>	[dʒɛraha]	'injury'
(iv)	/kalbu/	\rightarrow	[kalb]	>	[kɛlb]	'dog'

4.2.7 Vowel Substitution

In Arabic, nouns which appear to have word final consonant clusters at the surface representation do in fact end in vowels at the underlying representation. When these loanwords are borrowed into Kiswahili, there is the tendency to substitute the word final vowel /u/ with either /i/ or /a/. Even then, there are instances (though very few) where the vowel /u/ is maintained.

In our study of entries in the Kiswahili dictionary, we established that there are 165 entries of Arabic origin which have a word final consonant cluster pattern. Out of these, 111 end in the vowel /i/ while the rest take endings other than the vowel /i/. (See Appendix A). The following data show this phenomenon:

(15)	Arabic wo	rd	Kiswahili word (
	Underlying	form	Phonetic for	orm		
(i)	/qabru/	\rightarrow	[qabr]	>	[kaburi]	'grave'
(ii)	/mawtu/	\rightarrow	[mawt]	>	[mauti]	'death'

(iii)	/ħurru/	\rightarrow	[ħurr]	>	[huru]	'liberated'
(iv)	/naθru/	\rightarrow	[naθr]	>	[naθari]	'prose'

4.2.8 Consonant Cluster Accommodation

Kiswahili, as a Bantu language, is traditionally averse to consonant clusters because of its dominant CVCV syllable structure. However, the language is now accommodative of consonant clusters especially in words borrowed from Arabic. Quoting Batibo (1995:39), Mwita (2009:57) refers to this process as cluster tolerance and argues thus:

the language has become sensitive to consonant clusters due to three reasons, namely: its long association with foreign languages, particularly Arabic, its susceptibility to borrowing foreign words and its identification with Arabicism and Anglicism of the borrowed items'.

The process of consonant-cluster adoption of Arabic words borrowed into Kiswahili is exemplified below:

(16)	Arabic wore	d		Kiswahili word	Gloss	
	Underlying f	form	Phonetic for	m		
(i)	/?imla:?u/	\rightarrow	[?imla:?]	>	[imla]	'dictating'
(ii)	/7iħsaːnu/	\rightarrow	[? iħsaːn]	>	[ihsaani]	'generosity'
(iii)	/ ? amru/	\rightarrow	[? amr]	>	[amri]	'command'
(iv)	/?ard ^s u/	\rightarrow	[?ard [°]]	>	[ardhi]	'land'

4.3 Semantic Changes in Arabic words borrowed into Kiswahili.

4.3.1 Introduction

Semantic change refers to semantic shift or semantic progression and involves changes in the usage of words to the point where its current meaning radically differs from its original meaning. Such change may take place over a period of time. For instance, the Greek word 'demagogue' originally meant 'a popular leader' but now refers to a 'politician who panders to emotions and prejudice'. Semantic change may be classified into various types. A widely accepted form of classification is the one proposed by Bloomfield (1933) that involves semantic narrowing, semantic widening, metaphor, metonymy, synecdoche, hyperbole, meiosis, degeneration and elevation. For purposes of this study, we limit ourselves to the three broad types of semantic change, namely: Broadening, Narrowing and Shift.

4.3.2 Semantic Broadening

This is a process where the meaning of a word becomes more general or more inclusive than its historically earlier form. It is also known as generalization, widening or extension where the word increases its range of meaning over time. For instance in English, the word 'horn' initially referred to 'a protrusion on the heads of certain animal's', but its meaning then broadened to include a 'musical instrument', then 'drinking vessel of a shape like a horn'. The process of semantic

broadening also takes place during the process of borrowing Arabic words into Kiswahili, where certain Kiswahili loans take on extra meanings that were not in the original Arabic word. Here are some examples:

(17)	Arabic word	Gloss	Kiswahili word	Gloss
(i)	[qaːʔim]	person in acting capacity >	• [kaimu]	1. person in acting position
				2. person with power of sorcery
(ii)	[xat`t`]	handwriting, script, line >	[hati]	1. handwriting, script
				2. document
(iv)	[darad3a]	degree, grade, level, step	[daraja]	1. level
				2. bridge

The data in (17) above indicates that the Kiswahili loanwords have acquired extra meanings in addition to their original meanings in Arabic from which they were borrowed. This is evidence of semantic broadening. (See Appendix D)

4.3.3 Semantic Narrowing

This is the opposite of expansion. It is also known as semantic restriction and refers to a situation where a term acquires a narrower meaning. In English, for instance, the word 'meat' which was derived from the Middle English word 'mete' initially referred to 'food' in general, but is now restricted to 'processed animal flesh'. Similarly, the word 'flesh' has narrowed its meaning to refer to 'human flesh' only. Semantic narrowing can also take place as a result of borrowing Arabic words into Kiswahili exhibit as illustrated in the examples below:

(18)	Arabic word	Gloss	Kiswahili word	Gloss
(i)	[? aːja]	verse, sign, mark, miracle	[aya]	verse, paragraph
(ii)	[hamm]	interest, grief, distress	[hamu]	interest
(iii)	[qaːd̥ˤiː]	judge, magistrate,	[kadhi]	Islamic judge or
		Islamic judge/magistrate		magistrate
(iv)	[ħaːkim]	governor, ruler	[hakimu]	magistrate

The data in (18) above shows that the Kiswahili words borrowed from Arabic have narrower meanings compared to the meanings of the Arabic words from which they were borrowed. (see Appendix E)

4.3.4 Semantic Pejoration

It is also known as semantic deterioration and is a form of semantic shift in which a term acquires a negative association. In other words, the meaning of the word becomes less favourable. In English,

the word 'wench' initially referred to a 'girl', then it was used to refer to a 'wanton woman' or 'prostitute'. Pejoration also takes place during the process of borrowing Arabic words into Kiswahili as illustrated below:

(19)	Arabic word	Gloss	Kiswahili	word (Gloss
(i)	[mus'allaː]	'prayer place', 'prayer mat'	[musala]	•	lavatory'
(ii)	[ħawaːrijj	'disciple', 'follower'	[hawara]	'lovers in un	lawful union'
(iii)	[faduːl]	'intrusive', 'inquisitive'	[fiðuli]	'trouble	maker'
(iv)	[`i ʃrat]	'intimacy', 'social interaction	n'[aʃerati]	'immora	l'

4.3.5 Semantic Amelioration

This is a form of semantic shift in which a term acquires a positive association or becomes more favourable. It is also known as ameliorization. It is, in fact, an improvement in the meaning of a word. For instance, in English, the word 'knight' initially referred to a 'boy' but now refers to a 'man of honorable military rank conferred by the King or Queen'. The example below shows the process of amelioration of an Arabic word borrowed into Kiswahili.

(20)	Arabic word	Gloss	Kiswahili word	Gloss
	[?istafrab]	'seek to be Arab/Arabist'	[ustaarabu]	'ethical behaviour'

4.3.6 Semantic Shift

This is a total shift of meaning and sometimes a shift to the opposite meaning. In this process, a word may lose some aspect of its former meaning or take on a partially new, but related meaning. For instance, the English word 'immoral' initially referred to 'something not customary', but now refers to 'unethical behavior'. There are instances where Arabic words, when borrowed into Kiswahili take on different, sometimes opposite meaning as shown below:

(21)	Arabic word	Gloss	Kiswahili wo	ord Gloss
(i)	[muruː?a]	'magnanimity', 'generosity',	[murua]	'good', 'exciting',
		'manhood'		'attractive'
(ii)	[ʕuʃr]	one-tenth	[uʃuru]	'tax'
(iii)	[taːdʒir]	'merchant', 'businessman'	[tajiri] ʻı	rich person', 'employer'
(iv)	[xadʒal]	'shame', 'shyness'	[kejeli]	'to mock', 'to deride'

The data in (21) above shows that the Kiswahili terms have different meanings from the original meanings of Arabic words from which the terms were borrowed. Even then, we notice that in some instances, the meanings are close in terms of what is implied in both languages.

4.0 Conclusion

In this paper, we have discussed the various phonological and semantic processes that Arabic words go through during their absorption into the lexicon of Kiswahili as a result of borrowing. The main objective of the study was to examine, in detail, the phonological and semantic changes induced in part, or in full, by borrowing Arabic words into Kiswahili. We have illustrated that indeed Arabic words go through phonological processes such as vowel and consonant epenthesis, consonant deletion, consonant and vowel substitution, vowel shortening, vowel lowering and vowel strengthening. These processes are referred to as adaptation. Our study has concluded that indeed lexical borrowing of Swahili loans from Arabic has led to an expanded vocabulary of Kiswahili. The process is usually accompanied by the substitution, deletion and shortening of some segments of the loanwords. In addition, borrowing has led to semantic shift in the meanings of lexical items borrowed into Kiswahili from Arabic. These semantic changes include semantic broadening, narrowing, pejoration and amelioration.

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Appendix					
Anabia			onsonant Clusters		Kiswahili ¹ Kiswahili
Arabic	Kiswahili	Arabic	Kiswahili	Arabic	
[Sabd]	[abidi]	[daff]	[dafu]	[ɣamm]	[ɣamu]
[ʕabr]	[abiri]	[dahr]	[dahari]	[ɣarq]	[ɣarika]
[ʕahd]	[ahadi]	[dajn]	[dɛni]	[ɣilb]	[ɣilibu]
[Sajb]	[aibu]	[damm]	[damu]	[γi∬]	[ɣuʃi], [ɣaʃi]
[` aqd]	[akidi]	[dars]	[darasa]	[ɣurr]	[Yururi]
[Saql]	[akili]	[dawr]	[duru]	[ħadd]	[hadi]
[?alf]	[alfu]]	[ðann]	[ðana]	[ħaðð]	[haði]
[?alħaːdʒd	[3] [alhaji]	[d [°] arr]	[ðara]	[ħaːdʒdʒ]	[haji]
[` amm]	[ami]	[ðamb]	[ðambi]	[ħaqq]	[haki]
[` amm]	[amu]	[ðulm]	[ðuluma]	[xalf]	[halafu]
[?amr]	[amri]	[? alf]	[ɛlfu]	[ħamd]	[hamdi]
[?ard [°]]	[arði]	[` ilm]	[ɛlimu]	[hamm]	[hamu]
[``arf]	[ar f i]	[f izz]	[ɛnzi]	[xatm]	[hatima]
[`urs]	[arusi]	[fizz]	[ɛzi]	[ħarf]	[hɛrufi]
[? as [°] 1]	[asili]	[fadʿl]	[faðila]	[ħifð]	[hifaði]
[baʕd̥ˁ]	[baaði]	[faħl]	[fahali]	[ħirz]	[hirizi]
[baf0]	[baaθi]	[fahm]	[fahamu]	[ħiss]	[hisia]
[bayl]	[bayala]	[faxr]	[fahari]	[ħawdˤ]	[hoði]
[baħr]	[bahari]	[fann]	[fani]	[ħukm]	[hukumu]
[baxt]	[bahati]	[fardٟ [°]]	[faraði]	[xalq]	[hulka]
[bajt] [bajn]	[baiti] [baina]	[farħ] [farq]	[furaha] [faraka]	[xums] [ħurr]	[humusi] [huru]
[barr]	[bara]	[fard]	[faridi]	ħuzn]	[huzuni]
[bard]	[baridi]	[far ʃ]	[fari ʃ i]	[? iðn]	[iðini]
[? ibn]	[bin]	[fas [°] l]	[fasili]	[? ins]	[insi]
[bint]	[binti]	[fas [°] 1]	[faslu]	[? ism]	[isimu]
[bunn]	[buni]	[fawq]	[fauka]	[dʒadd]	[jadi]
[burd3]	[buruji]			[dʒaðb]	[jazba]
				[dʒarħ]	[jɛraha]

Appendix A:

 1 Shaded words are those that end in vowels other than /i/

[dʒinn]

[dzuz?]

[jini]

[juzuu]

	v			
Arabic	Kiswahili	Arabic Kiswahili	Arabic	Kiswahili
[qabr]	[kaburi]	[sabq] [sabiki]	[tafb]	[taabu]
[qadr]	[kadiri]	[saff] [safu]	[0ald3]	[θɛluji]
[qahr]	[kahari]	[sahl] [sahali]	[θumn]	[θumni]
[qasr]	[kasɔrɔ]	[saqf] [sakafu]	[t [°] ibb]	[tiba]
[qas [°] r]	[kasri]	[samn] [samli]	[bard]	[ubaridi]
[qawl]	[kauli]	[s ^s arf] [sarafu]	[biʃr]	[ubaʃiri]
[kibr]	[kiburi]	[s [°] arf] [sarufi]	[ʕuðr]	[uðuru]
[qufl]	[kufuli]	[s ^s awm][saumu]	[fahm]	[ufahamu]
[kufr]	[kufuru]	[s ^s awt] [sauti]	[faxr]	[ufahari]
[maħall]	[mahali]	[ʃahr] [ʃahari]	[faqr]	[ufukara]
[mahr]	[mahari]	[ʃajb] [ʃaibu]	[ħifð]	[uhifaði]
[mawt]	[mauti]	[ʃakk] [ʃaka]	[ħurr]	[uhuru]
[milk]	[milki]	[ʃaml] [ʃamla]	[?adʒr]	[ujira]
[miθl]	[miθili]	[ʃarr] [ʃari]	[qabð]	[ukabiði]
[nafs]	[nafsi]	[ʃard] [ʃaridi]	[sʿanʕ]	[usanii]
[naħw]	[nahaw]	[ʃart ^s] [ʃarti]	[ʃajb]	[uʃaibu]
[mahr]	[mahari]	[ʃawq] [ʃauku]	[ʕuʃr]	[uʃuru]
[naqd]	[nakidi]	[ʃibl] [ʃibili]	[sirr]	[usiri]
[naqs]	[nakisi]	[ʃuɣl] [ʃuɣuli]	[sʿulħ]	[usuluhisho]
[naqʃ]	[nakʃi]	[siħr] [sihiri]	[waŶð]	[waaði]
[naθr]	[naθari]	[sirr] [siri]	[waħj]	[wahyi]
[nawm]	[nawmi]	[s ^s alb] [sulubu]	[wad3h]	[wajihi]
[radʒm]	[rajimi]	[s ^s ulħ] [suluhu]	[waqt]	[wakati]
[ra ? s]	[rasi]	[summ] [sumu]	[waqf]	[wakfu]
[raml]	[ramli]		[was [°] f]	[wasifu]
[rasm]	[rasimu]		[witr]	[witiri]
[ratʿl]	[ratili]		[zaff]	[zafa]
[rizq]	[riziki]			
[rubf]	[rɔbɔ]			

[radd]

[rudi]

Arabic Long Vowel words Borrowed into Kiswahili					
Arabic	Kiswahili	Arabic	Kiswahili	Arabic	Kiswahili
[maːdda]	[maada]	[raŶijja]	[raia]	[tartiːb]	[taratibu]
[maŶðuːr]	[maaðura]	[ra ? iːs]	[raisi]	[taraːwiːħ]	[tarawehi]
[maʕluːm]	[maalum]	[radʒiːm]	[rajimi]	[tʿarbuːʃ]	[tarbuʃi]
[ma?muːm]	[maamum]	[ramadِ`aːn]	[ramaðani]	[taːriːx]	[tarehe]
[ma\ruːb]	[maarubu]	[rasuːl]	[rasuli]	[t [°] ariːqa]	[tariki]
[ma\ru1f]	[maarufu]	[ra?uːf]	[raufu]	[tasbiːħ]	[tasbihi]
[mafaːsˈiː]	[maasi]	[rijaːd̪a]	[riaða]	[taʃbiːħ]	[ta ʃ bihi]
[ma\suːm]	[maasumu]	[rijaːħ]	[riahi]	[taʃdiːd]	[taʃdidi]
[mabruːk]	[mabruki]	[ribaː]	[riba]	[ta]xiːs]	[taʃihisi]
[maθbuːt]	[maðubuti]	[ridaː]	[riðaa]	[taftiːt]	[taʃtiti]
[madsmu:n]	[maðumuni]	[rajħaːn]	[rihani]	[taʃwiːʃ]	[taʃwiʃi]
[maħbuːb]	[mahabubu]	[ridʒaːl]	[rijali]	[tashiːl]	[tasihili]
[naðiːf]	[naðifu]	[risaːla]	[risala]	[tasniːf]	[tasinifu]
[naðiːr]	[naðiri]	[ris'aːs']	[risasi]	[tasliːt [°]]	[tasiliti]
[naːdiː]	[nadi]	[riwaːja]	[riwaya]	[tasliːm]	[taslimu]
[naː ? ib]	[naibu]	[ruːħ]	[r ɔ ohɔ]	[ta0mi1n]	[ta0mini]
[nafiːma]	[naima]	[?istaffa]]	[staafu]	[tawfiːq]	[taufiki]
[nakiːr]	[nakiri]	[?istiraːħa]	[starehe]	[tʿaːʕuːn]	[tauni]
[nalr]	[nari]	[?istihza:?]	[stihizai]	[t'awraIt]	[taurati]
[nas [°] aːraː]	[nasara]	[su?aː1]	[suala]	[tʿaːwuːs]	[tausi]
[nas [°] iːb]	[nasibu]	[s [°] uːra]	[sura]	[t'awaːf]	[tawafu]
[natiːdʒa]	[natija]	[suːra]	[sura]	[tawallaː]	[tawala]
[nijaːba]	[niaba]	[sirwaː1]	[suruali]	[taws [°] i'f]	[tawasifu]
[niðaːm]	[niðamu]	[sʿaːħib]	[swahibu]	[t'awi'l]	[tawili]
[nifaːq]	[nifaki]	[sʿaːla]	[swala]	[tidʒaːra]	[tijara]
[nikaːħ]	[nikaha]	[tafaːwut]	[t ɔ fauti]	[tamaːm]	[timamu]
[riðaː]	[raði]	[tam0i1]	[tamθilia]	[tisfin]	[tisini]
[rafiːq]	[rafiki]	[tanbiːh]	[tanbihi]	[tafaːwut]	[t ɔ fauti]
[raːħa]	[raħa]	[tanuːr]	[tanuri]	[t [°] ahaː ° ra]	[t ɔ hara]
[rahiːm]	[rahimu]	[tanwi1n]	[tanuwini]	[tawraːt]	[t ɔ rati]
[raxiːs [°]]	[rahisi]				

Appendix B:

Arabic Long Vowel words Borrowed into Kiswahili

Appendix C:

Arabic words which exhibit Semantic Shift² in Kiswahili

Arabic word	Gloss	Kiswahili wo	rd Gloss
[ʕaːlam]	world	[aalam] v	very knowledgeable person
[?axas`s`]	more specifically	[ahasi]	worse off
[?aʕwaːm]	years	[awamu]	period
[? ism]	name, noun	[isimu]	linguistics
[? ittifaːq]	agreement, contract	[itifaki]	protocol
[baːxira]	ship	[b ɔ hari]	depot
[daːr]	house, dwelling	[dari]	ceiling
[distuːr]	constitution, governing law	[desturi]	tradition
[fadˤiːħa]	scandal	[fɛðɛha]	shameful
[ɣaraːma]	fine, penalty	[ɣarama]	cost
[yurfa]	room, chamber	[yɔ r ɔ fa]	storey building
[ħaðð]	luck	[haði]	status
[ħakiːm]	wise person, judicious person	[hakimu]	magistrate
[xalaː ʔ iq]	creatures	[halayki]	multitude of people
[ħamaq]	foolishness	[hamaki]	anger quick fact
[ħaraka]	novement life	[haraka]	quick, fast
[ħajaːt]		[hajati]	dead person (prominent)
[dʒadd]	grandfather, ancestor	[jadi]	ancient, origin of person
[dʒadiːd]	new	[jadidi]	strong
[dʒanaːza]	funeral ceremony, funeral procession	[jɛnɛza]	coffin
[dʒawr]	tyranny	[jɛuri]	obstinate
[qabʕd̪ˁ]	receive	[kabiði]	offer, give
[karam]	generosity, openhandedness	[karam]	feasting occasion
[ka ʃ f]	discovery, exposure	[ka ʃ fa]	scandal
[katiːba]	battalion	[katiba]	constitution
[qatiːl]	murdered person	[katili]	merciless person
[qawaːʕid]	rules, bases	[kawaida]	ordinary, usual
[xadʒal]	shame, shyness	[kɛjɛli]	to mock, deride
[laːbudd]	must, ought to	[labda]	may be, perhaps
[madħ]	praise, compliment	[madaha]	praise
[maðbaħ]	slaughterhouse, alter	[maðabahu]	shrine

 $^{^{2}}$ Shift in some of the words is not absolute. It may have implied meaning of the word in the source language.

Appendix D:

Arabic word	Gloss	Kiswahi	li word Gloss
[?abwaːb]	doors	[abwabu] 1. doors
			2. door frames
[Samal]	act, deed, work	[amali]	1. act, good deed, work
			2. sorcery
[daradʒa]	degree, grade, level, position, ste	ep[daraja]	1. level, grade
			2. bridge
[dars]	lesson, class period	[darasa]	1. classroom, class of students
c 6 03		a 13	2. religious lesson in mosques
[xat't']	handwriting, line, script	[hati]	1. handwriting, script
			2. document
[xatiːb]	public speaker, preacher	[hatibu]	1. preacher
			2. spokesperson
[? ittifaːq]	agreement	[itifaki]	1. agreement, contract
			2. protocol
[dʒamaːʕa]	group, clique, squad, community	[jamaa]	1. group, community
			 people of blood relation unanimous person
[qaː ʔ im]	person in acting capacity	[kaimu]	1. person in acting capacity
			2. person with power of sorcery
[muftiː]	interpreter of Islamic law	[mufti]	1. expert in Islamic law
[munkar]	1. forbidden action, abominatio	on[munkar	 a senior university professor attractive, nice 1. expert in Islamic law
	2. name of an Angel		 name of Angel agitation
[muxaːlif]	dissenting, violation of	[muhalif	u]1. violator of law
			2. criminal

Arabic Words which show Semantic Broadening in Kiswahili

Appendix E:

Arabic word	Gloss	Kiswahili wor	Gloss	
[? aːja]	1. sign, mark	[aya]	1. verse, paragraph	
	2. verse			
	3. miracle			
[ɣaːliː]	1. expensive, valuable	[yali]	expensive	
	2. dear, beloved			
[ħaːkim]	1. judge	[hakimu]	magistrate	
[hamm]	 2. governor, ruler 1. grief, distress 2. interest, concern 	[hamu]	interest	
[ħarakaːt]	1. movements	[harakati]	efforts	
	2. efforts			
[qaːd̥ˤiː]	1. judge, magistrate	[kaði]	Islamic judge/magistrate	
	2. Islamic judge/ magistrate			
[qadٟ`ijja]	1. case, legal suit	[kaðia]	issue, affair	
	2. affair, matter, issue			
[qindiː1]	lamp	[kandili]	paraffin lamp	
[qas`iːda]	poem	[kasida]	religious poems in	
		prai	se of Prophet Muhammad	
[kaːtib]	writer	[katibu]	secretary	
[qawm]	a people, a group of people	[kaumu]	a group of people with a specific goal	
[kibriːt]	1. sulphur, brimstone	[kibiriti]	match box	
[madrasa]	2. match box school	[madrasa]	Quranic school	
[mus [°] allaː]	1. prayer mat	[mswala]	prayer mat	
[mus ana.]	2. prayer place	[IIISwala]	prayer mat	
[mound=mid]	available	[mousin di]	available in planty	
[mawdʒuːd]		[mawjudi]	available in plenty	
[muhla]	time limit, grace period	[muhula]	school term	
[sʿaħiːfa]	1. page, sheet	[sahifa]	one page	
	2. newspaper			

Arabic Loanwords which show Semantic Narrowing in Kiswahili

Appendix F:

Arabic Phrases Borrowed into Kiswahili

Arabic word	Gloss	Kiswahili word	Gloss
/?ahlan wa sahlan/	welcome	[ahlanwasahlan]	welcome
/?alħamdu lillaːh/	in short, in brief	[alhamdulilahi] pr	aise to God, Thank God
/?alħaːs [°] il/	in short, in brief	[alhasili] i	in short
/ ? allaːhumma/	O God, O Lord	[allahumma] M	lay God grant your wish
/?alwat`an/	the country	[alwatani]	resident of a place
/Sards ħaːl/	petition, expose a situation	[arðilhali]	request, resolutions
/?arba\a wa\i∫ri:n/	twenty four	[arubaifirini]	twenty four
/?arbafata fafara/	fourteen	[arubata]ara]	fourteen
/ʕasaːkum/	you probably are	[aʃakum] apolog	y for use of taboo word
/baxt nas`iːb/	luck, share	[bahatinasibu]	by luck, gambling game
/baj{ fira:?/	buying and selling	[biasara] 1	trade, business
/biɣajr/	without	[biɣairi]	without
/billa:ħ/	by Allah	[bilahi] i	in the name of God
/bilaːʃaj ? /	without anything	[bilaʃi] for no j	purpose, without benefit
/ ? ibn ? aːdam/	son of Adam	[binadamu] l	human being
/bi nafs/	by self	[binafsi] l	himself, herself
/?ibn Samm/	son of paternal uncle	[binamu]	male cousin
/?ibnat Samm/	daughter of paternal uncle	[bintiamu]	female cousin
/bi nuːr/	by/with light	[binuri] a	a night greeting
/bi nus/	by half	[binusu] l	half
/bi ? ismillah/	by/in the name of God	[bismillahi] i	in the name of God
/bi xajr/	fine, in good state	[buhɛri] i	in good condition
/bi rraːħa/	with comfort		elated
/fa huwa/	and he is		the same
/fa kajf/ /fa law/	and how about and if	- 0 -	offer, give even if
/fa lawlaː/	and were it not		if only
/xamsata Safara/	fifteen		fifteen
/?iħdaː ʕaʃara/	eleven	[hedaʃara]	eleven
/ħuːr ?alsajn]	intensely white eye	[hurulaini] be	eautiful paradise woman
/?almuraːd/	the intention	[? ilimradi]	as long as
/ ? imma fa ? imma/	either or	[imafaima]	whichever way
/qad tamma/	has ended	[kaditama]	ending