

Understanding Kiswahili Vowels

by

Susan Choge, M.Phil.

schoge@yahoo.com

Masinde Muliro University of Science and Technology
Kakamega, Kenya

Abstract

Phonemes have been identified by linguists as the main phonological inputs of all human spoken languages. These phonemes are divided mainly into two-consonants and vowels. Each language has selected from the universal phonetic pool its own type and number of phonemes for its communicative purposes. Most of them have more consonants than vowels. Several languages share the same phonemes but use them differently to perform a variety of language specific linguistic functions. Kiswahili being one of these languages that has been studied extensively presents an interesting, scenario with regard to its use of phonemes. Kiswahili has over thirty phonemes. Traditional Kiswahili phonologists have identified five as vowels (Current linguists have identified more vowels), yet any consonant with the exception of syllabic C, cannot be used alone without it forming syllabicity with a vowel. Any user (speaker or reader) of Kiswahili language will notice that vowels though fewer than consonants have the highest use frequency. This indicates that its habitual users creatively use them to perform a variety of linguistic functions. This paper then, seeks to discuss and analyze the nature and functions of Kiswahili vowels.

Background: Kiswahili Origin and Utility

Kiswahili is a North-Eastern Coast bantuphone of Southern group of Niger–Congo language family (Cortini-Morava in <http://www3.iath.virginia.edu/swahili/> 08/12/06, Center for World Languages (CWLs)ⁱ <http://www.Imp.ucla.edu/> 23/05/07, Ogwana: 2001, Amidu 1995:105 and Mwita 1995: 1). Its base and origin is the Coast of Eastern Africa from Mogadishu in Somalia to the north and to the mouth of river Lurio in Mozambique to the south (Chiragdin & Mnyampala 1977:21-25, Mohamed 2001). Present day Kiswahili is a descendant of proto Kiswahili called *Kingozi* which is believed to be one of the languages spoken by the Washungwaya Bantus who were the ancestors of latter day speakers of various Kiswahili dialects (Amidu: 1995, Chiragdin & Mnyampala: 1977).

Kiswahili has since spread out from this coastal region to the inlands. It is now present in many countries of Eastern and Southern Africa (Ogwana: 2001, CWLs <http://www.Imp.ucla.edu/>, Amidu: 1995 and Kipacha: 2006). It is spoken in Kenya, Tanzania, Southern Coast of Somalia, Northern Coast of Mozambique and the various islands dotting the Indian Ocean. It is also spoken in Uganda, southern parts of Ethiopia, Rwanda, Burundi, Democratic Republic of Congo (DRC), northern parts of Zambia, Malawi, the Comoros islands and north western Coast of Madagascar. Currently, Kiswahili is being spread to southern Sudan by southern Sudanese refugees who are returning home after being in Kenya for over two decades. Their children schooled in Kenya where Kiswahili is a language of instruction and a subject. Some of these children speak Kiswahili as their first language. Kiswahili therefore is the main lingua franca in Eastern Africa and in some parts of central and southern Africa with about 150,000,000 speakers and a mother tongue to Swahili communities.

Besides being a lingua franca, Kiswahili too is an official and national language in Kenya and Tanzania, and only the recently in Uganda. Currently, it is being studied in primary, secondary and tertiary institutions within and without Africa. It is the language of instruction in Tanzania in primary schools (Webb and Kembo-Sure 2001:50) and a medium of instruction in Kenya in lower classes (1-3) in primary schools whose pupil composition is of mixed linguistic backgrounds. It is a discipline of academia in many Universities globally.

Currently, the African Union (AU) has adopted it as one of the languages to conduct its businesses. President Chisano of Mozambique was mentioned in one of Kenyan daily newspapers in an article entitled 'Swahili set back for delegates in Chisano speech' (*Daily Nation* July 7 2004:12) where he put this decision to test when he addressed the African Union Assembly in Kiswahili in its 2004 meeting in Addis Ababa. It is also the language of East Africa Community (Kenya, Tanzania, Uganda, Rwanda and Burundi) and of various media—broadcast (television & radio) and print (newspapers, books & posters) in and outside Africa.

Noun Classification

Kiswahili has three *ngelisation*ⁱⁱ(noun classification) systems namely:-semantic (numerical), morphological and syntactical (Mbaabu :1985, Mgullu: 2005, Waihiga: 2003, Cortini-Morava <http://www3.iath.virginia.edu/swahili/>). The three systems produce different *ngelis*ⁱⁱⁱ (noun classes) as listed below.

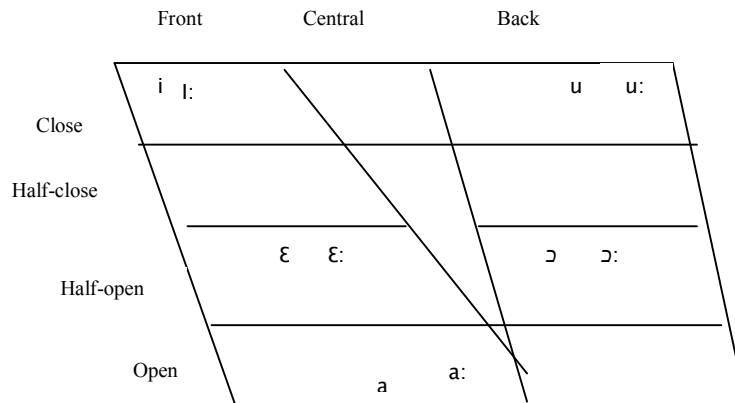
(1) <i>semanti</i> ^{iv}	<i>morphological</i> ^v	<i>syntactical</i> ^{vi}
1 <i>mu</i>	mu-wa	a-wa 1-2
2 <i>wa</i>	mu-mi	u-i 3-4
3 <i>mu</i>	ji-ma	li-ya 5-6
4 <i>mi</i>	ki-vi	ki-vi 7-8
5 <i>ji</i>	n-n	i-zi 9-10
6 <i>ma</i>	u-u	u-zi 11-14
7 <i>ki</i>	ku	u-ya 15-16
8 <i>vi</i>	pa	u-u 17-18
9 <i>n</i>		ya-ya 19-20
10 <i>n</i>		i 21
11/14 <i>u</i>		ku 22
		pa-ku-mu 23

This paper adopts the syntactical classification system because it is informative on the use of vowels. As such, it guides the reader to understand a variety of Kiswahili vowels and their functions.

Kiswahili Phonemes

The identification and documentation of Kiswahili phonemes is still continuous. Earlier linguists have put them at either 32 or 37. Out of these, they identified five as vowels /i, ε, a, u & ɔ/, two as semi vowels, /w/ & /j/ and the rest as consonants /p, b, t, d, k, ɡ, f, v, θ, ð, s, z, ɲ, ɳ, x, r, h, m, n, ʃ, tʃ, ʒ, ʒ, ʎ, ʎ & dʒ/ (Massamba et.al 2004:24-25, Webb & Kembo-Sure 2001:192 Katamba 1989:27 & Mbaabu 1985:55-87). Mgullu (2005:69) does not have/dʒ/. On the other hand, Nchimbi (1992:14) has thirty-one phonemes; all of the above, with the exception of /dʒ/. Moreover, he has identified five more consonants namely /ŋ, ɳ, <b, N/, & c/. With the exception of /c/, the rest are nasalized voiced plosives. In this paper, I have identified other seven phonemes, five long vowels /i:, ε:, a:, u: & ɔ:/ and two diphthongs /au & ɔa/. From this explanation, it is evident that the total number of Kiswahili phonemes is yet to be identified and documented.

In this paper I will not discuss the Kiswahili consonants' functions since the focus of the paper is the vowel functions. Any discussion of the consonants will be to the extent to which they aid and enhance the understanding of Kiswahili vowels and their functions. The following Kiswahili vowel chart will help us understand the type, position and manner of articulation involved in the production of Kiswahili vowels.



Literature Review

Studies into Kiswahili have been carried out by many a scholar from different approaches. Several of these studies have touched on Kiswahili phonology and morphology with minimal emphasis on the vowel and its roles. Scholars whose works have touched on the vowel are Wilson (1985), Mbaabu (1985), Nchimbi (1998), Mohamed (2001), Waihiga (2003), Russell (2003), Mgullu (2005) and Cortini-Morava <http://www3.iath.virginia.edu/swahili/> 08/12/06 among many others. Among them all, Mohamed's work is a bit detailed and recent on the study of the vowel. He has identified nine vowels- five cardinal vowels: /a, i, u e & o/ and four secondary vowels: /ɪ, ε, U & ɔ/. Following his view, Choge (2007) did an analysis of vowels in twenty Kiswahili words per vowel and identified the five vowels which other scholars of Kiswahili have attested to. They are three cardinal vowels: /a, i, u/ and two secondary vowels: /ε & ɔ/. She did not find the other four vowels Mohamed identified. Her view is that Mohamed's analysis could have been influenced by idiolectal and dialectal variations. However, she identified seven other vowels- five long vowels and two diphthongs which are shown on the vowel chart above.

Theoretical Framework and Methodology

I have based my analysis of vowels on Systemic Functional Linguistics *SFL* (also referred to as Systemic Functional Grammar/Grammatics –Theory (McGuire 2006 and Haspelmath 2005). This theory views linguistic resources of any language as functional and thematic. In this regard, Kiswahili vowels perform two activities, that of form and another of meaning. Vowels are co-participants with consonants in Kiswahili word formation as shown in the following words:- *mama* 'mother' whose skeletal tier is cvcv and *ukuta* 'wall' whose tier is vcvcv.

Besides this, Kiswahili vowels participate in creating and changing meaning in words. For instance, *kunja* ‘fold’ becomes *kunjua* ‘unfold’. In this context, {-u-} has been used to transform meaning. Therefore, Kiswahili vowels are significant in generating infinite forms and meanings in an effort to meet speakers varied communication needs. Thus, I have generated data based on my own linguistic competence and performance in Kiswahili. I have also purposely selected data from Kiswahili text books to supplement my generated data.

Analysis of Kiswahili Vowel Functions

This paper will only analyse vowel functions that are universal for all Kiswahili vowels. In this context, universality of functions refers to the linguistic roles which all or most of Kiswahili vowels perform.

Universal Vowel Functions in Kiswahili

There are certain linguistic functions which all Kiswahili vowels perform. They are divided into two- morphophonological and morphosyntactic. The first division comprises those functions that fall in two disciplines of phonology and morphology. The second one comprises vowel functions that fall into the disciplines of morphology and syntax. An analysis of these functions is discussed below.

Morphophonological Functions

In this category there are many functions that Kiswahili vowels perform phonologically or morphologically. In observing the Bantu phonological rule that requires all words to end in vowels, Kiswahili uses its vowels as end phonemes in all Kiswahili words.

(2)	word		type	end vowel	ngeli
a.	<i>mtu</i>	‘person’	noun	/u/	a-wa
b.	<i>abiri</i>	‘travel’	verb	/i/	-
c.	<i>mwiko</i>	‘taboo’	noun	/o/	u-i
d.	<i>-baya</i>	‘bad’	adjective	/a/	-
e.	<i>jiwe</i>	‘stone’	noun	/e/	li-ya
f.	<i>kuu</i>	‘main’	adjective1	/u:/	-

Phonologically, vowels nativise words of foreign origin. Any new non Bantu word that enters into Kiswahili language is accepted phonologically mainly by using vowels to convert it into a Kiswahili word according to Bantu vowel positioning in words. Those of Bantu origin and those from other languages with open syllable system, like Japanese, are integrated into Kiswahili without undergoing any morpho-phonological restructuring, even if they may not carry their meanings into Kiswahili. In cases where the morpho-phonological system is different from Kiswahili, the word is restructured to an open syllable. The following are some of the foreign words which have been adapted into Kiswahili through vowel addition (Chiraghdin & Mnyampala 1977:15-18, Mbaabu 1955: 35 and Suleiman 1999: 3,11).

(3)	source	word	nativised word	nativising vowel
a.	German	skul	skuli 'school'	/i/
b.	English	school	shule 'school'	/e/
c.	Hindi	hundir	hundi 'cheque'	/i/
d.	French	champ	shamba 'farm/shamba'	/a/
e.	Arabic	kitab	kitab <u>u</u> 'book'	/u/
f.	Arabic	hadīth	hadithi 'story'	/i/

Kiswahili does not use /ɔ/ as an end phoneme in nativisation of foreign words unless it is in nounce borrowing (Webb and Kembo-Sure, 2001:91). In this type of borrowing, the loan word retains some of its structure in the adoptive language. Some nativised non-bantu words in Kiswahili have retained their original end vowels in spite of the changes made to the other phonemes in the word (Chiraghdin & Mnyampala *ibid* and Suleiman *ibid*: 156). Examples are:

(4)	source	word	nativised word	end vowel
a.	Hindi	bhangri	bangili 'bangles'	/i/
b.	Portuguese	vinho	mvinyo 'wine'	/o/
c.	English	cinema	sinema 'cinema'	/a/
d.	Hindi	pesa	pesa 'money'	/a/
e.	Turkish	bugsha	bahasha 'envelope'	/a/
f.	Arabic	samhili	samahani 'pardon'	/i/
g.	Arabic	sadaqa	sadaka 'offering'	/a/

However, there are some foreign words which undergo changes when they are adapted into Kiswahili. They drop the original end vowel and adopt a different one depending on the preceding phonemes (Chiraghdin & Mnyampala 1977: 15-18).

(5)	source	word	nativised word	nativizing vowel
a.	Portuguese	beirame	beramu 'flag'	/u/
b.	Persian	pilao	pilau ^{viii} 'pilau'	/u/
c.	Hindi	katho	katu 'truly'	/u/
d.	English	chalkø	chaki 'piece of chalk'	/i/

Kiswahili is an open syllable language with two types of syllable skeletal tiers of *cv* or *v*. Vowels are syllabic and any syllable therefore must have a vowel or it is formed by a single vowel. In the case of the latter, no two vowels forms a single syllable. However, all Kiswahili vowels with the exception of /u & i/ form syllabicity with /w & y/. These semi vowels are allophones of /u & i/ in complimentary distribution. Their participation in syllable formation is discussed in the following subsections.

(6)	a.	with consonants		
		word	syllables	syllable structure
		pata 'get'	\$pa\$ta\$	\$cv\$cv\$ ^{ix}
		sema 'say'	\$se\$ma\$	\$cv\$cv\$
		chora 'draw'	\$cho\$ra\$	\$cv\$cv\$

b. **on their own**

i) *When they precede a consonant*

word		syllables	syllable structure
ita 'call'		\$i\$ta\$	\$v\$cv\$
oka 'bake'		\$o\$ka\$	\$v\$cv\$
amu 'paternal uncle'		\$a\$mu\$	\$v\$cv\$
-ema 'virtuous'		\$e\$ma\$	\$v\$cv\$

ii) When they (alone) form a word.

word		syllables	syllable structure
oa	'marry'	\$o\$a\$	\$v\$v\$
ua	'kill, or 'fence'	\$u\$a\$	\$v\$v\$
au	'or'	\$a\$u\$	\$v\$v\$

Vowels' functions can also be derived from their participation in verb root formation. They alone form verb roots or do so in conjunction with one or two consonants. Many verb roots have skeletal tiers of *cvc*, *cv* and *vc*. Very few are formed with only *v* tiers. However, monosyllabic verbs have consonant roots. The examples below expound this vowel functions

(7)	verb		root	skeletal tier	vowel used
	pika	'cook'	pik-	cvc	/i/
	cheza	'play'	chez-	cvc	/e/
	choma	'burn'	chom-	cvc	/o/
	pata	'get'	pat-	cvc	/a/
	jua	'know'	ju-	cv	/u/
	uza	'sell'	uz-	vc	/u/
	oa	'marry'	o-	v	/u/
	ua	'kill'	u-	v	/u/
	-fa	'eat'	-f-	c	-
	-la	'eat'	-l-	c	-
	-pa	'give'	-p-	c	-

Morphosyntactic Vowel Functions

Kiswahili vowels also carry out roles that are definable both morphologically and syntactically. By virtue of these functions, Kiswahili vowels too by extension execute semantic functions. These types of functions are discussed in details in this section.

Vowels are instrumental in morphological derivation processes such as creating deverbatives from various Kiswahili parts of speech by replacing the end vowels in the source words (Mohamed 2001:29-33, Kahiga et al 2000:193-194, Waihiga 2003:100-107). /i, u ε & ɔ/ are used to generate nouns from verbs of Bantu origin by replacing the verb end vowel {-a}. Other deverbatives retain it. Many verbs of non-bantu origin devebatize by replacing their end vowels with {-a} or carry it into the nouns they form in Kiswahili. In this case, the deverbatizing {-a} is suffixed to the end vowel of the loan word as in *abiria* in the example below.

(9) a) **Deverbatives from verbs of bantu origin**

verb	noun	deverbativising vowel
Shinda 'win'	mshindi 'winner'	{-i}
	Mshinde 'looser'	{-e}
Tua 'land'	kituo 'station'	{-o}
Tulia 'be calm'	mtulivu 'calm person'	{-u}
Pata 'get'	pato 'profit'	{-o}
-nywa 'drink'	kinywa ^x 'mouth'	{-a}

b) **Deverbatives from verbs of non-bantu origin**

tubu 'repent'	toba 'repentance'	u > ^{xi} {-a}
samehe 'forgive'	msamaha 'forgiveness'	e > {-a}
jadili 'discuss'	mjadala 'discussion'	i > {-a}
Sali 'pray'	sala 'prayer'	i > {-a}
Safiri 'travel'	msafara ^{xii} 'procession'	i > {-a}
Abiri 'travel'	abiria 'traveler'	i + ^{xiii} {-a}

In all agglutinative languages, agents, datives and objects are marked and grammaticalised by bound morphs. In Kiswahili, vowels /a, i & u/ with the exception of /ɔ & ε/, functions as pronouns in four ngelis of *a-wa*, *u-i*, *i-zi* and *u-zi*. The display below shows these vowels in these role positions.

9)	ngeli	pronoun	person number	examples in a sentence
	a-wa	u-	2 nd singular	(wewe) <i>umeenda nyumbani</i> (you) <i>you</i> have gone home
		a-	3 rd singular	(yeye) <i>ameenda nyumbani</i> (s/he/it) <i>s/he/it</i> has gone home
	u-i	u-	- singular	(mti) <i>umeanguka</i> (tree) <i>it</i> has fallen
		i-	- plural	(miti) <i>imeanguka</i> (trees) <i>they</i> have fallen
	i-zi	i-	- singular	(ndoo) <i>imeanguka</i> (the jerrican) <i>it</i> has fallen
	u-zi	u-	- singular	(ukuta) <i>umeanguka</i> (the wall) <i>it</i> has fallen

u-ya	u-	-	singular	(ugonjwa) <i>umezidi</i> (disease) <i>it</i> has increased
u	u-	-	neutral (urembo)	<i>unapendeza</i> (beauty) <i>it</i> is pleasant/attractive
i	i-	-	neutral (chai)	<i>imepikwa</i> (tea) <i>it</i> has been made

Vowels too take up the prepositional function in Kiswahili. Syntax being the discipline that conveys meaning through word order and grammatical agreement of words has assigned words and morphs in a language's syntactic construction, various functions such as nouns, verbs, adjectives, prepositions, and adjectives. These roles are language universals but their surface representations in terms of lexical and syntactic positioning are language specific across languages. In isolating languages like English, these grammatical categories are represented by independent morphs as opposed to their representation in agglutinative and fusional languages like Kiswahili which mark these categories by use of dependent morphs attached to roots or stems of words. A good example in Kiswahili is preposition representation. Some scholars of Kiswahili like Ashton (1947) opine that there are no true prepositions in Kiswahili. These scholars are influenced by the principles of translational grammar theory which postulates that language one (L1) and language two (L2) have one to one relationship in terms of form and semantic representation.

Kiswahili does not have the type of prepositions like those of English. In Kiswahili, prepositional functions are carried out by phrases whose functions are determined by their positions in a Kiswahili sentence (Amidu 2004) and vowels affixed to verb roots. This conjugational process in Kiswahili applies progressive assimilation in the choice of conjugational vowel (Webb & Kembo-Sure 2001:171). The choice of this vowel is determined by verb root vowel. If *cvc* verb root has /a, i, & u/, the conjugational vowel is /i/ and if the root has /ε & ɔ/, then, the conjugational vowel is /ε/. In Kiswahili, many verb roots have skeletal tiers of *cvc*. Those whose roots have syllabic tiers of *cv*, conjugational vowels are suffixed to the lateral //l/. These vowels of conjugation perform many prepositional functions (Russell 2003:60, Mohamed 2001:209 and Amidu 2007:55) as shown in the following examples.

(10) verb	root	conjugated verb	prepositional vowel
pika ‘cook’	pik-	pik- <i>i</i> -a ‘cook for/with/in’	-i-
panga ‘plan’	pang-	pang- <i>i</i> -a ‘plan for/on/in’	-i-
leta ‘bring’	let-	let- <i>e</i> -a ‘bring for/with/to’	-e-
soma ‘read’	som-	som- <i>e</i> -a ‘read for/to/in’	-e-
lia ‘cry’	li-	li- <i>li</i> -a ‘cry for/to/because’	-i-
lea ‘raise’	le-	le- <i>le</i> -a ‘raise for/in/at/on’	-e-
toa ‘remove’	to-	to- <i>le</i> -a ‘remove for/because/with’	-e-
saga ‘grind’	sag-	sag- <i>i</i> -a ‘grind for/of’ ^{xiv}	-i-

In this context, {-i-} and {-ε-} are allophones. These vowels which are morphs of verb inflection are prefixed, infixes or suffixed to consonant morphs in other verb conjugation processes. Examples of these morphs are {-iw-, -ew-, -liw-, -ik-, -lek-, -iz-, & -esh-} among others. Vowel /a/ plays the role of a preposition when suffixed to noun and ngeli referents. This preposition is equivalent to *for*, *of*, {-s}, & ϕ in English (Russell 2003:60, Mohamed 2003: 68).

(11) **Noun prepositions**

Maji *ya* (y- + -a) kunywa

Water *for* drinking or drinking ϕ water

Mtoto *wa* (w- + -a) Chebet

A/the child *of* Chebet or Chebet’s child

Kiti *cha* (ch- + -a) mwalimu

A/the/ chair *for/of* the teacher or a/the/ teacher’s chair

All the five Kiswahili vowels participate in formation of ngeli demonstratives. /i, a, u/ are used in formation of demonstratives of nearness-extreme proximity to the speaker. On the other hand, /ɔ/ is used to form demonstratives of furtherness which as Mgullu (2005:175) puts it, signifies a relative further distance from the speaker. The Demonstratives of this nature in all ngelis are created by the process of phoneme embedment^{xv} (Webb and Kembo-Sure 2000:172). Likewise, /ε/ is suffixed to the lateral root {-l-} to form {-le}, which is the stem of demonstratives of furthestness-less proximity to the referent- such as *yule*, *ile*, *zile*, *vile* and *pale* (Okombo and Habwe 2007: 82-83). Examples of these vowel functions are discussed below. The following letters are used as follows:- *s* = singular, *p* = plural.

(13)	ngeli	nearness	furtherness	furthestness
	-	<i>(nearer)</i>	<i>(further)</i>	<i>(furthest)</i>
	<i>a</i> (s)	<i>huyu</i>	<i>huyo</i>	<i>yule</i>
	<i>wa</i> (p)	<i>hawa</i>	<i>hao</i>	<i>wale</i>
	<i>u</i> (s)	<i>huu</i>	<i>huo</i>	<i>ule</i>
	<i>i</i> (p)	<i>hii</i>	<i>hiyo</i>	<i>ile</i>
	<i>li</i> (s)	<i>hili</i>	<i>hilo</i>	<i>lile</i>
	<i>ya</i> (p)	<i>haya</i>	<i>hayo</i>	<i>yale</i>
	<i>ki</i> (s)	<i>hiki</i>	<i>hicho</i>	<i>kule</i>
	<i>vi</i> (p)	<i>hivi</i>	<i>hivyo</i>	<i>vile</i>
	<i>i</i> (s)	<i>hii</i>	<i>hiyo</i>	<i>ile</i>
	<i>zi</i> (p)	<i>hizi</i>	<i>hizo</i>	<i>zile</i>
	<i>u</i> (s)	<i>huu</i>	<i>huo</i>	<i>ule</i>
	<i>zi</i> (p)	<i>hizi</i>	<i>hizo</i>	<i>zile</i>
	<i>ku</i>	<i>huku</i>	<i>huko</i>	<i>kule</i>
	<i>pa</i> -	<i>hapa</i>	<i>hapo</i>	<i>pale</i>
	<i>ku</i>	<i>huku</i>	<i>huko</i>	<i>kule</i>
	<i>mu</i>	<i>mumu</i>	<i>mumo</i>	<i>mle</i>

The above demonstratives are represented in English by *this* and *that* regardless of the noun type. *This* is a demonstrative of nearness while *that* is a demonstrative of furtherness and furthestness. Demonstratives of furtherness are formed in Kiswahili by suffixing {-o} to the demonstrative of extreme proximity/nearness to the speaker as shown below.

(14)	nearness	morph	furtherness		morph changes
	<i>huyu</i> ‘this’ +	<i>o</i>	<i>huyo</i> (a - wa)s	‘that’	<i>u</i> is embedded
	<i>hawa</i> ‘these’ +	<i>o</i>	<i>hao</i> (a - wa)p	‘those’	<i>wa</i> is embedded
	<i>hii</i> ‘this’ +	<i>o</i>	<i>hiyo</i> (u - i)p	‘that’	<i>y</i> replaces last - <i>i</i>
	<i>hiki</i> ‘this’ +	<i>o</i>	<i>hicho</i> (k - vi)s	‘that’	<i>ch</i> replaces - <i>ki</i>
	<i>hivi</i> ‘these’ +	<i>o</i>	<i>hivyo</i> (ki - vi)p	‘those’	<i>y</i> replaces - <i>i</i>

In the above examples, two morphophonemic changes have taken place – phoneme embedment and phoneme dissimilation. In the third and fifth examples above, dissimilation has caused /j/ to replace /i/ which precedes /ɔ/ in order to form *hiyo* and *hivyo*. In the first and second examples, phoneme embedment has taken place. {u & wa} have been removed from the surface structure.

In the fourth example, {ki-} has been replaced by the affricative /tʃ/. This is an attempt to reduce the pronunciation challenge caused by the need to successively pronounce a high front vowel /i/ in {-ki-} and a back middle vowel /ɔ/.

Conclusion

The discussion has proved that Kiswahili vowels form a linguistic system which enables replicative use of the same phonemes with different semantic and pragmatic outputs. This system has enabled systematic creativity in the production of Kiswahili phonology, morphology, semantics and pragmatics. The latter has enhanced language economy through the application of systematic and generative principles which efficiently use the finite phonemes to generate infinite linguistic structures, which carry the users varied intended meanings. Therefore, this system is central to every aspect of Kiswahili linguistic structures. This system is also charged with lexical transformation and meaning changes and shifts. Competence and performance in Kiswahili entails knowing the application of these vowels to derive a variety of meanings from a given Kiswahili lexicon. The system of vowel application has enhanced language economy through maximum utilization of few linguistic resources by replicative and generative use of finite set of phonemes.

Present and ever-growing utility of the language as I mentioned in the introduction of this paper, proves that Kiswahili is still progressing with its linguistic conquest internationally. As it spreads out from its base in Eastern Africa, more research on its linguistic structure is needed to enable new and upcoming learners to understand it as a precursor to them gaining linguistic competence and performance in Kiswahili. Beside this, its expansion opens the doors for outside linguistic influences. Therefore, Kiswahili's expansion and diasporic uses are cushioned and guided by constant researches on its structure and functions of its linguistic materials.

An insightful research as this is important for the teaching of Kiswahili as a second and foreign language. It provides a useful reference for comparative linguistic studies, terminology and word coinage. More so, it is a useful resource in understanding Kiswahili language standardisation and swahilisation of foreign words.

This discussion has not exhausted everything with regard to the Kiswahili vowels. Further research needs to be done on other functions of Kiswahili vowels and the nature of other vowels such as the diphthongs. However, this paper has shown some significant features of the Kiswahili vowel system. It is central in the coinage and usage of Kiswahili lexicon, is a pillar of Kiswahili grammaticality and glue for bonding phonemes and words in an acceptable syntactic order for the sole purpose of effective communication.

Reference

- Amidu, A.A.(2007: *Semantic Assignment rules in Bantu Classes*.
Cologne: Rudiger Köppe Verlag.
- Amidu, A. A. 2004: Kiswahili Language Description and Translation Grammars. *Taiwan Journal of Linguistics* 2(1): 45-68.
<http://ling.nccu.edu.tw/RedBug/tjl/volume2-1/> (20/06/07)
- Amidu, A. A. 1995: Kiswahili: People, Language, Literature and Lingua Franca. *Nordic Journal of African Studies*, 4(1), 104-123. www.njas.helsinki.fi.
(20/06/07)
- Ashton, E.O. 1947: *Swahili Grammar*. London: Longman.
- Center for World Languages (CWLs) Swahili.
<http://www.lmp.ucla.edu/Profile.aspx?LangID=17&menu=004>.(23/05/07)
- Chimerah, R.1998: *Kiswahili Past, Present and Future Horizons*.
Nairobi: Nairobi University Press.
- Chiraghdin, S. & M.Matthias 1997: *Historia ya Kiswahili*.
Nairobi: Oxford University Press.
- Choge, S.C. 2006: Kusanifisha Kiswahili Sanifu. Hitaji Katika Karne ya 21. In Sewangi, S.S. & Madumulla, J.S.(eds.) *Makala ya Kongamano la Kimataifa La Jubilei ya TUKI-2005. Kuadhimisha Miaka 75 ya Taasisi ya Uchunguzi wa Kiswahili (1930-2005)*. Dar Es Salaam: University of Dar Es Salaam Press. 25-35.
- Choge, Susan C. 2007: "The role of [a] in Kiswahili." *RALL journal*.
(in print)
- Contini-Morava, E. Noun Classification in Kiswahili.
<http://www3.iath.virginia.edu/swahili/swahili.html>. (08/12/06).
- Haspelmath, M. 2005: Functionalist Linguistics: Usage-based Explanations of Language Structure. <http://email.eva.mpg.de/~haspelmt> (01/07/07)

- Kahigi, K. *et.al.* 2000: *Lugha za Tanzania. Languages of Tanzania*. Leiden: University of Leiden.
- Katamba, F. 1989: *An Introduction to Phonology*. London: Longman.
- Kipacha, A. 2006: The Impact of the Morphological Alteration of Subject Markers on Tense/Aspect: The Case of Swahili. *ZAS papers in Linguistics* 43:81-96.
http://www.zas.gws.berlin.de/papers/zaspil/articles/zp43/ZASpiL43_Kipacha.pdf.
- Massamba, D.P. 2002: *Historia ya Kiswahili. 50 B.K-1500 B.K.* Nairobi: Jomo Kenyatta Foundation.
- Mbaabu, I.(1996: *Language Policy in East Africa*. Nairobi: Educational Research & Publications (ERAP).
- Mbaabu, I. 1991: *Historia ya Usanifishaji wa Kiswahili*. Nairobi: Longman
- Mbaabu, I. 1985: *Sarufi ya Kiswahili*. Nairobi: Kenya Publishing & Book Marketing Co. Ltd.
- McGuire, P. 2006: Language: Functionalism versus Authenticity. *Indo-Pacific Journal of Phenomenology* 6 (2):1-13
http://www.ipjp.org/august2006/peter_McGuire_6ez.Pdf. (21/06/07).
- Mgullu, R.M. 2005: *Mtalaa wa isimu: Fonetiki, Fonolojia na Motolojia ya Kiswahili*. 3rd edn. Nairobi: Longhorn Publishers.
- Mohammed, M. A. 2001: *Modern Swahili Grammar*. Nairobi: East African Educational Publishers.
- Mwita, C.L. 1992: Chimbuko la Kiswahili. *Baragumu* 1(1&2):1-17
 Maseno: Maseno University.
- Nchimbi, A.S. 1992: Mfumo wa Matamshi ya Fonimu za Kiswahili. *Baragumu* 1(1&2):25-39
- Ogwana, J.C. 2001: Swahili Yesterday, Today and Tomorrow. Factors of its Development and Expansion. *TRANS. Internet-Zeitschrift fur Kulturwissenschaften*. No.11.
<http://www.inst.at/trans/11Nr/ogwana11.htm> 23/05/2007

- Russell, J. 2003: *Teach Yourself Swahili*. 2nd edn. London: Hodder Arnold
- Sloat, C. et al, 1978: *Introduction to Phonology*. U.K: Prentice Hall.
- Suleiman, Y. 1999: *Arabic Grammar and Linguistic*. Surrey: Curzon Press.
- Thomson, A. J. & A.V. Martinet 1996: *A Practical English Grammar*. 4th edn. Oxford: Oxford University press.
- TUKI. 2004: *Kamusi ya Kiswahili Sanifu*. Dar-es- salaam: Oxford University Press.
- Waihiga, G. 2003: *Sarufi Fafanuzi ya Kiswahili*. 2nd edn. Nairobi: Longhorn Publishers.
- Webb, Vic. & Kembo-Sure 2001: *African Voices. An Introduction to the Languages and Linguistics of Africa*. Oxford: Oxford University Press.
- Whiteley, W.H. 1969: *Swahili: the Rise of a National Language*. London: Methuen & Co Ltd.

ⁱ CWLs is my own abbreviation of Center for World Languages. I have used it in the rest of the text.

ⁱⁱ Ngelisation refers to the process of grouping nouns according to their relatedness in meaning or structure as per the chosen classification system.

ⁱⁱⁱ Ngeli is a Kiswahili terminology which refers to a noun class(es). In Kiswahili, it has no overt morphs to identify singular and plural forms. In this paper, I have pluralised it the English way by adding the {-s} suffix to form *ngelis*

^{iv} This classification is found in Cortini-Morava cited in the text.

^v This classification system is copied from Mohamed (2001:40-45)

^{vi} This classification system is based on Mgullu (2005:174-175), but the numerical system attached to it is my own addition.

^{vii} Scholars who support the seven ngelis put the two ngelis (n-n & u-n) as one (u-n).

^{viii} /ɔ/ in *pilao* has changed to /u/ in *pilau* to conform to Kiswahili diphthong /au/ which is used in a few Kiswahili words. In present day Kiswahili usage, especially by non Bantu speakers, *pilao* is more used than *pilau*. Therefore *ao* and *au* are allophones.

^{ix} \$ is used to mark syllable boundary.

^x In this example, {-a} has been carried to the deverbative. However, the deverbating morph is {ki-}.

^{xi} The symbol represents the 'phrase changes to'.

^{xii} In Kiswahili *msafara* refers to any procession of animate beings. For instance, there is; *msafara wa watu* (a procession of people), *masafara wa siafu* (a procession of ants) or '*msafara wa ngamia*' (a procession of camels).

^{xiii} The + symbol stands for 'added to'.

^{xiv} Amidu (2007: 55) has used the *i* in **sagia** to stand for 'of' in the sentence *mama wa jiwe la kusagia* 'Lower grinder of grinding stone'. The African millstones are in two pairs, the lower wider stone which in this context is referred to as *mama wa jiwe* and the the upper small one referred to in this context as *jiwe la kusagia*.

^{xv} I have used embedment instead of deletion which most phonologist use because embedment carries the notion of 'it is hidden and it is retrievable' as opposed to deletion which connotes complete removal. The phonemes and morphemes referred to in this context are present in the hidden structure but they are not shown on the surface form. They are retrievable phonologically and morphologically.