

# VOWEL HARMONY IN KITHARAKA

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## ABSTRACT

Kitharaka is a central Kenya Bantu language - a group of languages that Guthrie (1970/71) designated as E50 and which Bennet's (1977, 1985) refers to as Thagicu languages. The languages of the sub-family comprise Kitharaka, Kikuyu, Kikamba, Kiambu and Kimeru. Kitharaka, as well as the other languages of the sub-family have vowel harmony. In this paper I examine vowel harmony as a widespread phonological process and discuss its nature in Kitharaka. I show the similarities that Kitharaka vowel harmony shares with other languages as well as the differences that sets it apart from the vowel harmony of other languages.

## 1. INTRODUCTION

Katamba (1984: 257) comments that:

In some languages, vowels occurring in some specified domain, which is usually the word, must share some phonetic property or properties. Such languages are said to have vowel harmony.

On his part, A.C. Baker (2009:2) observes that:

Vowel harmony interests a wide range of phonologists for a number of reasons. It is widespread among the world's languages, but nowhere near universal. It is a phonotactic constraint that is nonetheless violated by many roots in vowel harmony languages, but it's also an active phonological process that causes alternations.

This phonological phenomenon that is found in many languages of the world is also found in Kitharaka as well as in other Central Kenya Bantu languages, namely, Kikuyu, Kikamba, Kiambu and Kimeru (Wa Mberia,1993). The presence of the phonological phenomenon supports the contention by Clements (1976) and Kiparsky (1981) quoted in Finley and Bedecker (2008). Finley and Bedecker observe that "... vowel harmony is an extremely common phonological that occurs in a wide range of language families (e.g., Bantu, Nilotic, Romance, Urulic) (Clements, 1976; Kiparsky, 1981). Furthermore, the vowel harmony found in Kitharaka is of the canonical type, that is, harmony that spreads from vowel to vowel without affecting or being affected by intervening consonants (Mahanta, 2007).

Kitharaka has two types of vowel harmony (Wa Mberia, (1993). The first type occurs between the vowels of the pre-prefixes and those of the following prefix. Furthermore, in the demonstrative adjectives, each of which consists of a noun class prefix and an adjectival root, the vowels of the two morphemes are identical.

The second type of vowel harmony in Kitharaka operates between the verb roots and some of the verb suffixes such as the applicative, stative, and reversive morphemes. This vowel harmony into which the seven vowels of Kitharaka divide themselves into tense and lax sub-sets, is determined by the vowel of the root.

Whereas the first type of vowel harmony is a morphological phenomenon, the second type results from the operation of a phonological process. The former is occasioned by morphological processes such as reduplication; the later is the outcome of assimilation. Just as Kitharaka has vowel harmony, so do the other Central Kenya Bantu languages. Specifically, the vowel harmony found in Kitharaka and other Central Kenya Bantu languages, or as Bennett refers to them, Thagicu languages, is of the tense-lax opposition. This kind of harmony is the same phenomenon as covered-uncovered vowel opposition leading to the conclusion that the Chomsky and Halle dichotomy between the two is untenable (Stevens et al 1969).

## **2. MORPHOLOGICAL VOWEL HARMONY**

Reconstructions of the noun classes in Bantu have posited between nineteen and twenty three classes for the family. Kitharaka has only seventeen noun classes ranging from Class 1 to Class 17. The same situation obtains for all the other Thagicu languages. They have historically lost all the classes above class 17. The class sentential agreement displays morphological vowel harmony.

Kitharaka has compulsory “pre-prefixes” in the attributive adjectives for noun classes 1, 3 and 4. These “pre-prefixes” have a vowel that is identical to the vowel of the prefix.

The following examples demonstrate the phenomenon:

(1)

Class	Pre-prefix	Prefix	Adjectival Stem	Gloss
1	o	mo	raja	tall / long
3	o	mo	raja	tall/long
4	e	me	raja	tall/long

Demonstrative pronouns also exhibit agreement between two vowels. Thus:

(2)

Noun Class	Demonstrative pronoun	Example	Gloss
1	oyo	mwarimo oyo	“This teacher”
2	βaβa	aciari βaβa	“These parents”
3	oyo	moramba oyo	“This baobab tree”
4	ino	meti eno	“These trees”
5	rere	ekome rere	“This egg”
6	mama	makipa mama	“These footprints”
7	keke	vetanda xeke	“This bed”
8	βiβi	iture βiβi	“These poles”
9	eno	ɲomba eno	“This house”
10	ino	ɲkare ino	“This vehicle”
11	roro	rorixi roro	“This thread”
12	kaka	ka:na va:ka	“This child”
13	toto	twana toto	“These children”

14	βoβo	otoŋga βoβo	“This wealth”
15	koko	koðoma γoko	“This reading/ learning”
16	aγa	βanto ara	“This (specific) place”
17	koko	γonto γoko	“This (genera) place

As evidenced by the data in (1) and (2) above, Kitharaka has either reduplication of the syllable of the pronoun as whole or a reduplication of only the vowel. Thus, entries such as βαβα, rere, mama, keke, βιβι, roro, kaka, toto, βoβo, γoko have the first syllable reduplicated. In the forms oyo, and aγa, the vowels [o] and [a] are respectfully reduplicated. The only exceptions to the above two scenarios are /eɔ/ and /iɔ/ for Classes 9 and 10 respectively.

The type of vowel harmony exhibited by the data in (1) and (2) is simple in the sense that the harmonizing vowels are identical to one another. It appears that this type of harmony results from morpheme-copying<sup>4</sup>. It is therefore an outcome of a morphological rather than a phonological process. In the data in (1) and (2) the syllables correspond to the morpheme. In the Classes 1, 3 and 4 attributive adjectives, class marker morpheme has lost historically lost consonant in the “pre-prefix”.

### 3. PHONOLOGICAL VOWEL HARMONY

The second type of vowel harmony is found in the extended verbs. It is much more complex than what has been described above. Let us consider the data in (3) below where we show the underlying representation (U.R.) and the surface representation (S.R.):

(3)

U.R.	S.R.	Gloss
/iŋg+ek+a/	[iŋgeka]	possible to close
/tan+ek+a/	[taneka]	possible to circumcise
/tum+ek+a/	[tumeka]	possible to sew/weave
/rom+eka+/	[romeka]	possible to cultivate
/rɔɤ+ek+a/	[rɔɤeka]	possible to bewitch
/tɛɣ+ek+a/	[tɛɣeka]	possible to trap

According to these data, the stative morpheme has two surface realization, that is [ek] and [ɛk]. The data shows that [ek] occurs in verbs that have /u/, /a/, /o/, or /e/ in the root. On the other hand, [ɛk] occurs in verbs whose roots have /ɛ/ or /ɔ/. Phonetically, /i, a, u, o, e/ are tense vowels whereas /ɛ/ and /ɔ/ are lax. Thus, if the root of the verb has a tense vowel, it takes the stative allomorph that has a tense vowel. On the other hand, if the root has a lax vowel, it takes the allomorph with a lax vowel. In other words, the vowel harmony exhibited by the data is determined by the value of the feature [TENSE] in the verb root.

According to Generative Phonology, for an allomorph to qualify as the underlying form, it has to be shown that it occurs in a context that is free from a conditioning environment. In the specific instances of [ek] and [ɛk], the underlying form should be shown to occur with roots that do not have a vowel. In all the data considered, whereas [ek] is found only in verbs which have tense vowels in the roots, [ɛk] occasionally occurs in verbs that do not have any vowels in the roots. [ek] is found, for instance, in stative [tɛka] (infinitive: ko-t-a “to throw away”). Under these circumstances, it is plausible to conclude that the stative morpheme is {ɛk} and that [ek] is derived from it through a phonological process. The process is triggered off by the presence of a tense vowel in the verb root. It may be formulated as (4) below:

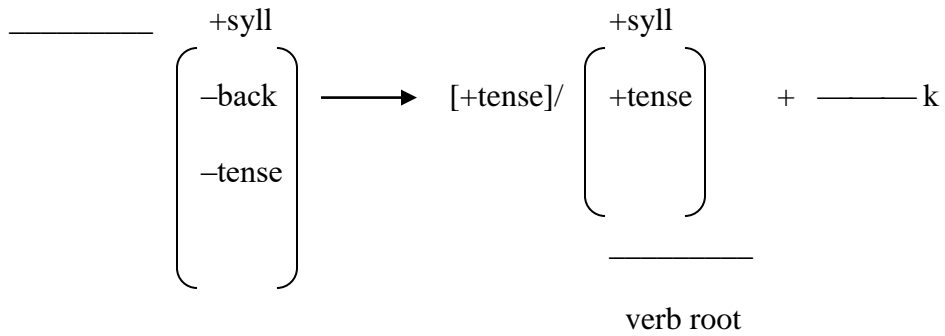




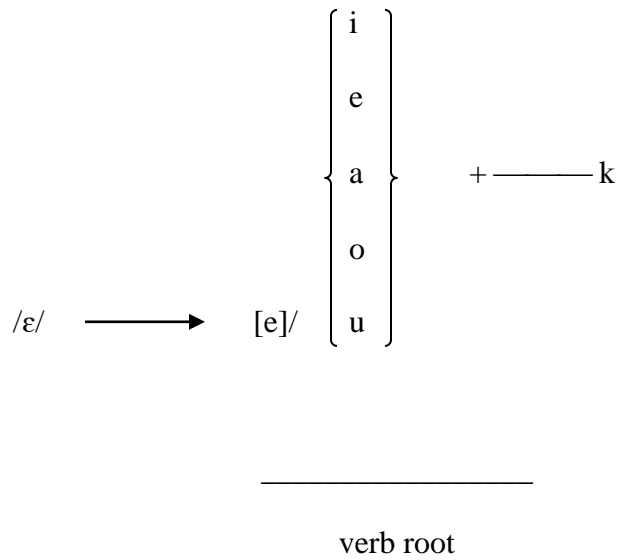
/kɛn+ɛr+a/	[kɛnɛra]	be happy with another
/iŋg+er+a/	[iŋgera]	close for another
/rem+er+a/	[remera]	cultivate for another
/tan+er+a/	[tanera]	circumcise for another
/rom+er+a/	[romera]	pick for another
/tux+er+a/	[tuxera]	get rich at

According to these data [er] is found in roots that have tense vowels and [ɛr] in those that have a lax vowel. [ɛr] is also found in roots that do not have vowels as exemplified by [tɛra] above. We are led to conclude, therefore, that the underlying applicative morpheme is {ɛr} and that it has an environmentally-conditioned variant [er].

The phonological rule that accounts for the variant [er] is similar to Rule (4) which we have formulated above to account for vowel harmony in the stative verb forms. In both rules there is harmony for the feature [TENSE] between the vowel of the root and that of the verb extension. The applicative harmony rule, however, has /r/ where the stative rule has /k/. Thus:



that is,

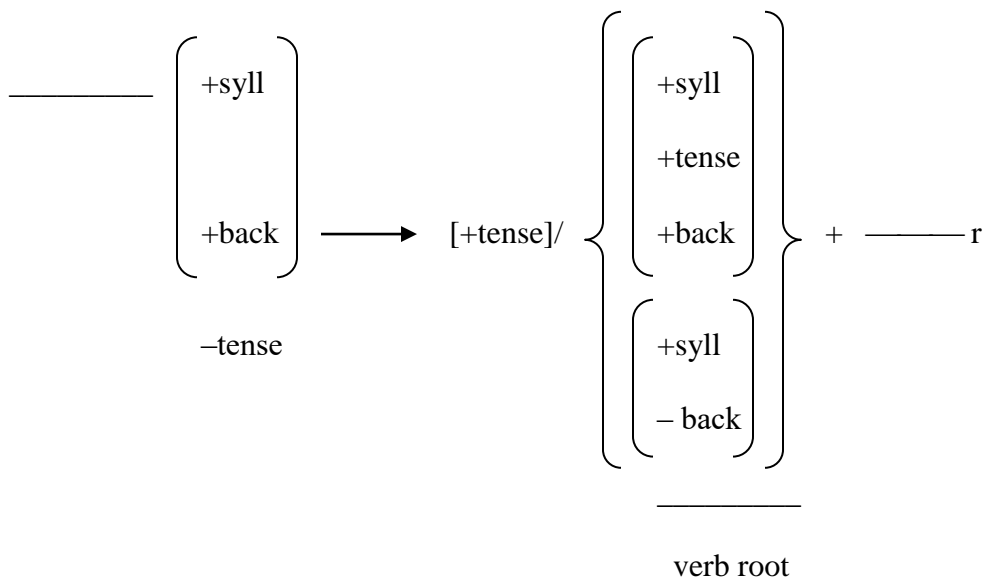


The third verb extension affected by vowel harmony is the reversive morpheme. It has two variants, [or] and [ɔr], as shown in the following data:

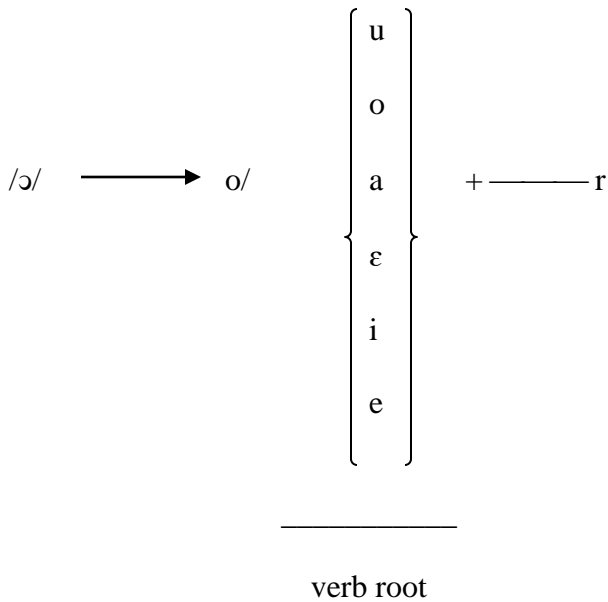
_____	<u>Conversive.</u>	
[iŋgora]		open
[tomora]		unweave/unsew
[teɣora]		set off (a trap)
[rɔɔɔra]		treat a bewitched patient
[tanora]		reverse circumcision <sup>6</sup> .

According to these data [ɔr] occurs in roots that have /ɔ/ whereas [or] is found elsewhere. Unlike in the case of stative and applicative morphemes where our conclusions on the underlying variants were made on the basis of the variants occurring in roots without vowels, all the verbs that we have analysed for the reversive extension contain vowels in their roots. In the circumstances, there does not seem to be any empirical grounds on which to decide whether [ɔr] or [or] is the underlying form. However, in our view it is more plausible to take [ɔr] as the underlying variant on account of analogy with [ɛk] and [ɛr] (which as we have argued above are the underlying stative and applicative morphemes respectively) than to posit [or] as the underlying form. Following this line of reasoning the underlying reversive morpheme is {ɔr}, surfacing as [ɔr] when the root has /ɔ/ and or [or] elsewhere.

The rule that governs this harmony may be formulated as follows:



that is,



In the stative and applicative extensions the vowel of the extension agrees with the vowel of the root for the feature [TENSE]. This situation does not obtain in the reversive extension where the harmony is between the [ɔ] of the extension and the [ɔ] of the root on the one hand, and [o] of the extension and /i, e, ε a, o, u/ of the root. In other words, the conditioning environment for the vowel harmony process is broader in the stative and applicative verb extensions than it is in the reversive verb forms.

#### 4. CONCLUSION

In discussing vowel harmony Finley and Bedecker (2009) observe that directionality is an important issue because vowel harmony can be described either directional or non-directional. In the non-directional harmony, the feature spreads from a conditioning vowel in the stem outwards to the right, or outwards to the left, or to both the right and

the left. They note that when it is directional, a vowel feature spreads in one direction from the conditioning vowel to the target vowel. Thus, the spreading of the feature may be from the rightmost vowel of the morphological stem to a target vowel to the left or from the leftmost vowel of the morphological stem to the left of a target vowel to the right. Quoting Hyman (2002), they note that, in the directional harmony, there appears preference or a bias towards the right to left feature spreading.

From the illustrations of Kitharaka data presented above, Kitharaka has a directional vowel harmony. Moreover, unlike the bias shown by languages, in Kitharaka the harmony spreads from a conditioning vowel in the root in left to right direction.

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