International Journal of English Language and Linguistics Research
Vol.7, No 3, pp. 45-56, May 2019
Published by European Centre for Research Training and Development UK (www.eajournals.org)

A STUDY OF VOWEL LENGTH IN OLUSUBA

Walter Ochieng Sande[1], Dr. Emily Ayieta Ondondo[2] and Prof. Francis Owino Rew[3]
Jaramogi Oginga Odinga University of Science and Technology
P.O BOX 210-40601, Bondo, Keya

ABSTRACT: *This article describes vowel length in Olusuba. The objective of this study is to investigate sources of vowel length in Olusuba. Data for this study was collected from a secondary source: Dholuo translation of Olusuba. A word list was generated and presented to native speakers of Olusuba who were instructed to read it loud while being recorded. The recorded data was then played back for phonetic transcription. Using a descriptive research design and basing on data generated from the secondary source and phonological realisation of the listed words by native speakers of Olusuba, there are two sources of vowel length in Olusuba: underlying vowel length and derived vowel length. This article describes the two sources.*

KEYWORD: derived, olusuba, phonological realisation, underlying, vowel length

INTRODUCTION

Existence of vowel length in African languages has raised debates among linguists. Some linguists have argued that vowel length is nonexistent in African languages. Using Mande (West African languages of the Mandé people), as a source of evidence, Welmers (1973) observes that wherever there are adjacent vowels in this language, the vowels are treated as nuclei of separate syllables. Based on tone assignment on adjacent vowels in a Mande language, Wan, Ravenhill (1982) further confirms the nonexistence of vowel length in African languages. According to Ravenhill (1982), sequences of identical vowels should be treated as separate syllables based on the fact that the vowels are independently assigned tones. Akinlabi (2004), on the other hand, uses mode of syllabification in Yoruba language to support Welmers (1973) and Ravenhill's (1982) arguments. In Akinlabi's (2004) view, a sequence of two identical vowels is parsed as heterosyllabic vowels in Yoruba.

Vowel length is one of the key elements that constitute the phonology of a language thus forming grammar of that particular language. In the review of available literature related to this study, no documented study has been done on vowel length in Olusuba. Therefore, findings in this study will be relevant in informing conclusions about vowel length as a phonological property of Olusuba language. As previously discussed, vowel length is not a linguistic feature in some Bantu languages such as Mande, Yoruba and Wan (Akinlabi, 2004; Ravenhill, 1982 & Welmers, 1973). This is not so in Olusuba. In Olusuba, as established in the available data in this study, vowel length is a feature in the vowel system hence the existence of two types of vowels: short vowels and long vowels. The following sub-sections give detailed discussions of the two sources of vowel length in Olusuba.

Print ISSN: ISSN 2053-6305(Print), Online ISSN: ISSN 2053-6313(online)

The Language

Olusuba, the language under study, is spoken by the Suba (Abasuba) people whose native lands in Kenya are Rusinga and Mfangano Islands (Kembo-Sure, 1999 & Mhando, 2008). The Suba people are Bantu speaking people who came from all over East Africa although majority came from Uganda after the death of Kabaka Jungu around 1760 (Kembo-Sure, 1999). Olusuba, as argued by Kembo-Sure (1999), is a mixture of Luganda and Lusoga dialects spoken in the lake region of East Africa hence a Bantu language. The survival of this language, in Kenya, has been threatened by the neighbouring language, Dholuo, a Nilotic language spoken in the western parts of Kenya. Dholuo has been treated as a language of prestige by the Suba people (Kembo-Sure, 1999; Mhando, 2008 & Ogone, 2010) thus threatening the survival of Olusuba.

LITERATURE REVIEW

The concept of vowel length has been given a lot of attention in phonology. Odden (2011) provides an account of vowel length and how to handle long vowels. The question often raised is whether a long vowel is a sequence of two identical vowels or just one segment which differs from its short counterpart on duration (Bassene, 2012). Bassene (2012) argues that languages go both ways. In Wolof long vowels behave like a single unit (Bell, 2003). This is not so in a Chadic language, Hausa. In Hausa language, long vowels are viewed as a sequence of two adjacent identical vowels and as such they behave like diphthongs (Odden, 2011). In languages like Yoruba, a sequence of two identical vowels is parsed as heterosyllabic vowels (Akinlabi, 2004). Akinlabi (2004) uses heterosyllabic nature of vowels to explain the inexistence of vowel length in Yoruba. Ravenhill (1982), on the other hand, uses tone assignment on adjacent vowels in Wan, a Mande language of Ivory Coast, to further confirm the nonexistence of vowel length in African languages. According to Ravenhill (1982), sequences of identical vowels should be treated as separate syllables based on the fact that the vowels are independently assigned tones. The existence of vowel length is further supported by contrastive vowel length that occurs in some Bantu languages. This is exemplified by a Tanzania based Bantu language, Bena. In Bena, as observed by Morrison (2011), words may contrast in meaning because of variation in vowel length – there are (near) minimal pairs in Bena that are as a result of variation in vowel length.

The pace of speech has also been discovered to influence vowel length in languages. For example, in rapid speech in Eegimaa, a sequence of two identical vowels realized as long vowels may be pronounced separately in normal speech (Bassene, 2012). Using data from Mande language as a source of evidence, Welmers (1973) establishes that when there are adjacent vowels in Mande, the vowels are analysed as nuclei of separate syllables. Akinlabi (2004), on the other hand, uses mode of syllabification in Yoruba and supports Welmers and Ravenhill's (1982) arguments. In Akinlabi's (2004) view, a sequence of two identical vowels is parsed as heterosyllabic vowels. This has been attested in Yoruba. Morrison (2011) uses phonemic contrastive vowel length to explain why adjacent vowels should be analysed as long vowels. She also observes that phonemically long vowels are restricted to certain syllable positions that are language specific. In

Print ISSN: ISSN 2053-6305(Print), Online ISSN: ISSN 2053-6313(online)

Bena, for that matter, all word final vowels are short; long vowels never occur word-initially (Morrison, 2011). These arguments on vowel length proposed an investigation of vowel length in Olusuba.

As observed by Hyman (2003) Stegen (2005), Proto-Bantu has been reconstructed as having seven vowels /a, e, i, ɪ, o, ʊ, u/ plus phonemic length and from this system, all Bantu vowel systems are derived. Individual Bantu languages, as posited by Stegen (2005), have not necessarily kept the original Proto-Bantu vowel system and a few have kept phonemic length to some extent. Stegen (2005) insists that if a language has no phonemic length, then no orthographic representation of it will be necessary. This opened a ground for emergence of conventions on writing short and long vowels. These conventions, as reported by Stegen (2005), are to write short vowels with a single letter and long vowels with double letters. Stegen (2005) warns that not all long vowels are underlyingly long; however, it is phonetically conditioned long vowels which have particularly difficult implications for orthography decisions. The debates on vowel length were important to this study as they opened a study gap on the sources of vowel length in Olusuba.

Morphological patterns such as inflection are understood to cause changes in phonological feature, length of vowels constituting the words of a language. In C'lela, for that matter, noun inflection triggers vowel lengthening (Aliero, 2015). In the formation of plurals for animate nouns, Aliero (2015) argues that the short vowel of monosyllabic noun stems in this language usually undergoes lengthening when the plural suffix attaches to the noun stem. For short vowels of monosyllabic nouns, he adds that a stem may undergo lengthening when followed by a suffix plural marker.

Vowel lengthening may be derived from phonological processes: vowel coalescence and compensatory lengthening which can be conditioned by phonological features of the surrounding sounds. In Bena, for instance, long vowels may arise through coalescence. This occurs when vowel adjacency is derived at a morpheme boundary (Morrison, 2011). In this case, Morrison (2011) states that either one vowel shortens and becomes approximant or vowel coalescence occur with the first vowel assimilating to the second resulting in a long vowel.

There are some languages that exhibit morphophonemics through compensatory lengthening. In Bena, for that matter, Morrison (2011) puts it that compensatory lengthening involves prenasalised consonants in which case Bena allows syllable-final nasals which bear morae. However, because Bena does not allow syllable-final consonants, Morrison (2011) concludes that the mora of the nasal delinks and is reassigned to the preceding vowel. This results in a lengthened vowel followed by a prenasalised consonant.

There are a number of languages, according to existing literature, that do not permit adjacent non-identical vowels. This has been resolved by glide formation. In Bena, a sequence of two non-identical vowels is disallowed and whenever this occurs, the formation of a glide takes place (Morrison, 2011). According to Morrison (2011), when the high front vowel /i/ is followed by any other non-identical vowel or when a high back vowel /u/ is followed by a non-rounded vowel in

Print ISSN: ISSN 2053-6305(Print), Online ISSN: ISSN 2053-6313(online)

Bena, the first vowel turns into a glide /j/ or /w/ while the second vowel is compensatorily lengthened.

In Ekegusii, a Bantu language spoken in Kenya, phonetic vowel length is not reflected in the spelling of words and such vowel length is realised after the phonetic environment is altered (Komenda; Maroko & Ndung'u, 2013). Two distinct vowels can occur in Ekegusii words according to Komenda, et al. (2013). In certain contexts, one of them may either be deleted or glided while the other gets lengthened hence compensatory lengthening. As posited by Komenda, et al. (2013), this type of lengthening is also as a result of prefixation. The interface between these prefixes and stems of words condition the morphophonemic alternation that triggers vowel compensatory lengthening. Komenda, et al. (2013), conclude that the alternations in the prefixes of Ekegusii words are determined by a phonetic environment and this environment is the initial sound of the noun or verb stem. Following the existing literature, vowel length has been discovered to have sources which may be language dependent hence the relevance of this study to the structure of Olusuba language.

FINDINGS AND DISCUSSIONS

Based on the findings in this research, two sources of vowel length are established in Olusuba. The following sub-sections give detailed account of the two sources.

Underlying Vowel Length

Olusuba, as other Bantu languages, is characterised by both long and short vowels (Morrison, 2011). These vowels are phonologically unconstrained in terms of length hence underlying vowel length. Underlying vowel length can be found in Olusuba stems. Consider the data in example (1).

1. a) *e-ø-kaalu*
AUG-9a-temple
'temple'

b) *a-ma-weere*
AUG-6-milk
'milk'

c) *o-wu-wiiko*
AUG-14-treasure
'treasures'

d) *a-ma-tooke*
AUG-6-banana
'banana'

Print ISSN: ISSN 2053-6305(Print), Online ISSN: ISSN 2053-6313(online)

e) *fuumut-a!*
prick/spear-2Ssg
'Prick/Spear!'

Underlying vowel length is sometimes phonemic in Olusuba as shown in some near minimal pairs in (2).

2. a) *mukaaga*
six
'six'

a-maa-nkaga
AUG-6-heed
'heed'

b) *i-ø-seeka*
AUG-5-flue
'flue'

sek-a!
laugh-2Ssg
'Laugh!'

c) *a-ma-siira*
AUG-6-wave/tide
'wave/tide'

o-mu-siri
AUG-3-garden
'garden'

d) *a-wa-woola*
AUG-6-conscience
'conscience'

wol-a
rot-2Ssg
'Rot!'

e) *fuuw-a*!
curse-2Ssg
'Curse!'
e-ki-fuwa
AUG-7-chest
'chest'

Print ISSN: ISSN 2053-6305(Print), Online ISSN: ISSN 2053-6313(online)

Derived Vowel Length

Derived vowel length is realised in Olusuba, as in other Bantu languages, after the phonetic environment is altered through predictable morphophonological processes (Bassene, 2012; Cammenga, 2002; Mwaliwa, 2014; Morrison, 2011 & Ondondo, 2018). Derived vowel length in Olusuba is achievable through a number of ways. First, derived vowel length is achieved through the process of assimilation when dissimilar vowels are concatenated at morpheme boundaries. Assimilation is meant to resolve vowel hiatus since Olusuba does not allow dissimilar vowel sequences. Consider the data in example (3).

3. a) SR: *a-me-eru*
UR: *a-ma-eru*
AUG-6-bright/shiny
'bright/shiny'

c) SR: *a-mi-iga*
UR: *a-ma-iga*
AUG-6-enthusiasm
'enthusiasm'

Second, derived vowel length in Olusuba is as a result of concatenation of two heteromorphemic identical vowels as the data in example (4) shows.

4. a) *a-ma-ani*
AUG-6-strength
'strength'

b) *e-ri-iso*
AUG-5a-eye
'eye'

c) *o-mu-unyu*
AUG-3-salt
'salt'

Thirdly, derived vowel length can result from gliding. Gliding occurs when the first vowel in a VV sequence is the high front vowel /i/ or the high back vowel /u/ followed by any of the four vowels in Olusuba except the vowel itself. This process can occur both heteromorphemically and tautomorphemically.

The high front vowel /i/ glides to /y/ when followed by any of the vowels /a, e, o, u/ heteromorphemically. When this happens, the following vowel lengthens to compensate for the mora lost when /i/ changes to /y/. Consider the data in example (5).

5. a) SR: *e-my-aaka*
UR: *e-mi-aka*
AUG-4-year

Print ISSN: ISSN 2053-6305(Print), Online ISSN: ISSN 2053-6313(online)

'years'

b) SR: *e-ky-eeyo*
UR: *e-ki-eyo*
AUG-7-broom
'broom'

c) SR: *e-my-ooyo*
UR: *e-mi-oyo*
AUG-4-heart
'hearts'

d) SR: *e-ry-uuwa*
UR: *e-ri-uwa*
AUG-5-sun
'sun'

The high back vowel /u/ undergoes gliding in Olusuba when followed by any of the four vowels /a, e, i, o/ heteromorphemically. When the high back vowel glides to /w/, the following vowel lengthens to compensate for the mora lost when /u/ glides to /w/. See the data in (6).

6. a) SR: *o-mw-aana*
UR: *o-mu-ana*
AUG-1-child
'child'

b) SR: *o-mw-eene*
UR: *o-mu-ene*
AUG-1-self
'oneself'

c) SR: *o-mw-iipi*
UR: *o-mu-ipi*
AUG-3-dwarf
'the/a dwarf'

d) SR: *o-mw-ooyo*
UR: *o-mu-oyo*
AUG-3-soul/heart
'soul/heart'

Tautomorphemic patterns in Olusuba are inferred from heteromorphemic ones even though they do not have underlying forms. Consider the data shown in examples (7) and (8).

7. a) *o-mu-syaani*
AUG-3-canan
'Cananite'

Print ISSN: ISSN 2053-6305(Print), Online ISSN: ISSN 2053-6313(online)

b) *kyeesekan-a*
able-2Ssg
'able to'
c) *simyooni*
a person's name
'Simon'
d) *zyuuk-a*!
resurrect-2Ssg
'Resurrect!'

8. a) *swaawuk-a*
cane-2Ssg
'Cane!'

b) *mwees-a*
be able-2Sg
'be able to'

c) *o-wu-lwiire*
AUG-14-disease
'disease'
d) *kwoolool-a*!
have/own-2Ssg
'Have/Own!'

Fourthly, vowel length in Olusuba can be derived through compensatory lengthening. In the underlying representation of a word consisting of a Nasal-Consonant (NC) sequence in Olusuba, the nasal is seen to be in the coda position of the preceding syllable. Because of the open nature of Olusuba syllables, the nasal syllabifies in the onset of the following syllable leaving the mora hanging. The hanging mora is compensated for by lengthening the preceding vowel as demonstrated in example (9).

9. a) SR: *o-muu-ntu*
UR: *o-mu-ntu*
AUG-1-person
'person'

b) SR: *ee-m-fuko*
UR: *e-ny-fuko*
AUG-9-purse
'purse'

Distribution of Long Vowels in Olusuba

Long vowels in Olusuba are restricted to word-initial and word-medial positions. These vowels can occur both tautomorphemically and heteromorphemically in Olusuba words. With the

Print ISSN: ISSN 2053-6305(Print), Online ISSN: ISSN 2053-6313(online)

exception of the high front vowel /i/ and the high back vowel /u/, all heteromorphemic long vowels in Olusuba can occur word-initially as shown in example (10).

10. a) *a-agal-a*
1Ssg-want-IND
'he/she wants'

b) *e-ez-a*
9S-can-IND
'It can'

c) *o-on-a*
1Ssg-see-IND
'you see'

Olusuba heteromorphemic long vowels can also occur word-medially as example (11) illustrates.

11. a) *a-ma-ani*
AUG-6-power
'power'

b) SR: *a-mi-ino*
UR: *a-ma-ino*
AUG-6-tooth
'teeth'

c) SR: *a-mo-owa*
UR: a-ma-owa
AUG-6-mushroom
'mushroom'

d) *o-mu-unyu*
AUG-3-salt
'salt'

Similarly, Olusuba tautomorphemic long vowels can occur word-initially except for the mid back vowel /o/. Consider the data in example (12).

12. a) *aay-a*!
shepherd-2Ssg
'Shepherd!'

b) *eey-a*!
sweep-2Ssg
'Sweep!'

c) *iiy-a*!
pluck-2Ssg
'Pluck!'

Print ISSN: ISSN 2053-6305(Print), Online ISSN: ISSN 2053-6313(online)

d) *uuz-a*!
come-2Ssg
'Come!'

Long vowels in Olusuba can also occur tautomorphemically in word-medial position as seen in example (13).

13. a) *a-wa-gaaka*
AUG-2-elder
'elders'
b) *a-ma-weere*
AUG-6-milk
'milk'
c) *e-ki-tiiti*
AUG-7-bracelet
'bracelet'
d) *tool-a*!
take-2Ssg
'Take!'
e) *e-ki-nyuunyu*
AUG-7-chick
'chick'

Long vowels do not occur word-finally in Olusuba. This can be demonstrated by the process of gliding. If the high front vowel /i/ or the high back vowel /u/ is followed by a dissimilar vowel, the high front vowel /i/ changes to /y/ while the high back vowel changes to /w/. The gliding of these vowels to the approximants leaves their mora hanging. To compensate for the hanging mora, the following vowel lengthens. Compensatory lengthening does not happen word-finally in Olusuba hence the ungrammaticality of the structures shown in example (14).

14. *SR: *gy-aa*!
UR: *gi-a*
go-2Ssg
'Go!'

After the gliding of the high front vowel /i/ to the approximant /y/ in the example in (14) above, the following vowel should not be lengthened as it should be because Olusuba disallows long vowels word-finally. Therefore, the correct form of the word in example (14) above is as shown in (15).

15. SR: *gy-a*!
UR: *gi-a*
go-2Ssg
'Go!'

Print ISSN: ISSN 2053-6305(Print), Online ISSN: ISSN 2053-6313(online)

CONCLUSION

It is pointed out in this paper that there are two sources of vowel length: underlying vowel length and derived vowel length. Derived vowel length unlike underlying vowel length occurs only at the surface thus creating incorrespondence between the input and the output. This incorrespondence is environmentally conditioned both tautomorphemically and heteromorphemically. It is established in this article that derived vowel length occurs in the process of vowel hiatus resolution since Olusuba disallows a sequence of dissimilar vowels. It is also discovered in this article that long vowels are restricted in distribution in this language – the long vowels can only occur word-initially or word-medially. Vowel length has also been found to be phonemic in some words in Olusuba.

References

Akinlabi, A. (2004). Yoruba Sound System. *Understanding Yoruba Life and Culture*. by Nike Lawal, Matthew N.O. Sadiku and Ade Dopamu, pp.453-468. Trenton: Africa World Press.

Aliero, M.A. (2015). Morphophonological Processes of the C'lela Noun. *Ghana Journal of Linguistics (4.1)*,1-14.

Bassene, M. (2012). Morphophonology of Joola Eegimaa. Unpublished PhD dissertation. The University of Minnesota.

Bell, A.J. (2003). Gemination, degemination and moraic structure in Wolof. *Working Papers of the Cornell Phonetics Laboratory 15*, 1-68.

Cammenga, J. (2002). *Phonology and morphology of Ekegusii: a Bantu language of Kenya.* Köln: Rüdiger Köppe Verlag.

Kembo-Sure, E. (1999). SUBA: Ethno-Linguistic Vitality and Ethnic Revival: *Institute of Research and Postgraduate Studies Seminar Paper*.

Komenda, S. Maroko, G.M. & Ndung'u, R.W. (2013). The Morphophonemics of Vowel Compensatory Lengthening in Ekegusii. *International Journal of Education and Research, Vol.1, No.9*, 1-16.

Mattah, N. (2016). *Okusoma Olusuba Kunywoowu no Omanyire Okusoma Oluswanya* (4th ed). Nairobi: Bible Translation and Literacy Publisher.

Mhando, J. (2008). *Safeguarding Endangered Oral Traditions in East Africa.* National Museums of Kenya, For UNESCO – Nairobi.

Morrison, M.E. (2011). A Reference Grammar of Bena. Unpublished PhD thesis, Rice University.

Mwaliwa, H.C. (2014). An Analysis of the Syllable Structure of Standard Kiswahili Loanwords from Modern Standard Arabic. Unpublished PhD thesis, University of Nairobi.

Odden, D. (2011). The state of African language description and training Paper presented at the Workshop on African Languages and Cultures College Park, MD: University of Maryland and Centre for Advanced Study of Language.

Ogone, J.O. (2010). An Examination of Efficiency of the Efforts on Revitalisation of Olusuba Language in Kenya. PhD thesis University of Leizberg.

Print ISSN: ISSN 2053-6305(Print), Online ISSN: ISSN 2053-6313(online)

Ondondo, E.A. (2018). Long Vowels and Nasal-consonant Sequences in Kisa. *Theory a and Practice in Language Studies, Vol.8*, No.10, 1329-1337, October 2018.
Ravenhill, P.L. (1982). The Wan language. *Mandenkan 4*, 57-69.
Stegen, O. (2005). Vowel Length in Eastern Bantu Orthographies. Manuscript.
Welmers, W. E. (1973). *African language structures.* Berkeley: University of California Press.

Print ISSN: ISSN 2053-6305(Print), Online ISSN: ISSN 2053-6313(online)