http://dx.doi.org/10.4314/gjl.v11i1.2

VOWEL DELETION IN ÀBÈSÀBÈSÌ: A CASE STUDY OF ÈKÌRÒMÌ

Taiwo Opeyemi Agoyi
Jonas Lau
Oluseyi Sams Emmanuel

Abstract

Àbèsàbèsì[1] is an endangered Nigerian language spoken in nine settlements within the Akoko North East and Akoko North West Local Government Areas (LGA) of Ondo State by an estimated total of less than 7,000 speakers. In this language, as in many other Benue-Congo languages, it is a common case that two vowels meet across a word boundary. Among different phonological processes that are triggered by the occurrence of two sounds at morphological boundary are: segment harmony, deletion/elision, assimilation, dissimilation, coalescence, velarization and palatalization. This paper investigates the phenomenon of vowel deletion in Àbèsàbèsì for an insight into the V_1 # V_2 vowel deletion in the language. Data collection adopts a participatory model. The paper attempts a descriptive and rule base account of the types of vowel deletion the language attests. For a better understanding of the segment behaviour, Data collection and presentation is limited to the Èkìròmì dialect as spoken in Ìkáràm. Èkìròmì attests two types of V_1 # V_2 vowel deletion and certain environments where no vowel deletion takes place. This paper attempts to clarify the distributional properties of these two types of vowel deletion and to explain the cases where no deletion takes place. It shows that V_1 # V_2 vowel deletion, in most cases, affects the first of two consecutive vowels (V_1) and proposes an explanation of the few cases, where the second vowel (V_2) is affected.

Keywords: Àbèsàbèsì, Èkìròmì, Benue-Congo, Vowel Deletion, Phonology

[1] Àbèsàbèsì is known as Akpes in literature and has the ISO-639-3 code ibe and the Glottolog code akpe1248.

1. Introduction

Vowel deletion is a well-attested process within the Benue-Congo language family, deletion is linguistic process languages employ to reduce the number of syllables and to maintain the rather rigid Consonant Vowel (CV) syllable structures predominant in the family. This study investigates the different types of vowel deletion in Èkìròmì, a dialect of the Àbèsàbèsì language spoken in the Akoko mountains of Ondo state, Nigeria. The researchers limit the scope to this dialect in order to be able to carry out an in-depth analysis. Apart from the typical vowel deletion triggered by two vowels meeting across a word boundary (henceforth V_1 # V_2), Èkìròmì also attests word final vowel deletion if a word is located at a syntactic boundary or uttered in isolation. Data used for this research is drawn from one of the researchers' documentations corpora and a rich corpus gathered in about ten years by researchers and various undergraduate students.[2] The data is evaluated using a descriptive method, while the distribution of the vowel deletion types is explained using a feature phonology approach.

After introducing the language and the dialect of interest, section 2 contains a description of the phonology in Èkìròmì and a summary of existing research on the dialect. While section 3 defines vowel deletion, the different domains of vowel deletion in Èkìròmì is introduced and illustrated with data in section 4. After that, section 5 discusses the different vowel deletion types discovered in the data and analyses their distribution.

1.1 Àbèsàbèsì

Àbèsàbèsì is spoken in eight communities in Àkókó North West and one community in Àkókó North East Local Government Areas of Ondo State, Nigeria, by an estimated number of less than 7,000 speakers[3]. The inhabitants of these settlements are predominantly farmers. Intergenerational transmission fails to take place (Agoyi 2014:4) and language attitudes, especially among young speakers, reveal a preference of speaking the dominant language in the area, Yorùbá (Agoyi 2008:2-4). These factors cause high endangerment of the

[2] The examples are transcriptions from audio data submitted by students on field trips.

[3] Taking the inhabitant numbers of five communities given by a paper produced within the Millennium Villages Project (Chovwen et al. 2009:10), adding an estimated 800 inhabitants for Akunnu and a third of the population of Ajowa for the three Àbèsàbèsì-speaking communities of the nine communities within Ajowa, results in a total of 10664 people. Assuming a general percentage of 60% speakers across all communities, 6398 speakers are estimated.

language. Yorùbá and English are used as languages of instruction in schools and for official engagements. Adults use Àbèsàbèsì to communicate at home and in all informal occasions while Yorùbá or Nigerian Pidgin English is used to communicate with youths and children. The Àbèsàbèsì communities are in direct vicinity of communities speaking the Akokoid languages, Àhàn, Ayere, Ukaan and the Owé dialect of Yorùbá.

Genetically, the language has long been classified as an independent branch of the Benue-Congo family (Williamson & Blench 2000) within the Niger-Congo phylum. However, Elugbe (2012) proposes Akedoid as a branch of the Benue-Congo family, suggesting that Àbèsàbèsì and Ukaan are earlier branches of what is now as the Edoid languages. Agoyi (2008) in the study of internal classification of Àbèsàbèsì proposes four dialects: Akpes spoken in Àkùnnù and Ìlúdọ̀tun, Èkìròmì spoken in Ìkáràm and Àsẹ̀, Ìluẹnì spoken in Ìbaràmù, Ìyànì and Gèdègédé and Ọ̀ṣùgù spoken in Èṣùkù and Dája.

1.2 Èkìròmì

As mentioned in the preceding section, Èkìròmì is one of the Àbèsàbèsì dialects spoken in Àsẹ̀ and Ìkáràm in the northern part of Ondo State, Nigeria. While Ìkáràm is a town with around 5000 inhabitants, Àsẹ̀ is a small farm settlement with only less than 80 inhabitants situated about three kilometres east of Ìkáràm (Chovwen et al. 2009:10). Inhabitants of Ìkáràm refer to their language as Èkìròm(ì), while those of Àsẹ̀ refer to theirs as Ekiròm. This research, however, is solely based on language data recorded in Ìkáràm.

The following section gives an overview of the phonology in Èkìròmì while summarizing existing research on the dialect.

2. Èkìròmì Phonology

Èkìròmì attests a total of 36 phonemes, of which 22 are consonants, 7 oral and 7 nasalized/nasal vowels. Moreover, our data reveal a number of labialized consonants. Raji (1986), the first researcher who worked on Èkìròmì, mentions labialization and lists the following labialized consonants: /b^w, t^w, d^w, k^w, g^w, f^w, $ʃ^w$, h^w, $tʃ^w$, j^w/. Agoyi (1997) argues that labialization is caused by a deleted rounded vowel following the consonant. As this phenomenon cannot be discussed in this paper, the study will not decide on the phonemic nature of these labialized consonants.

Table 1: Èkiròmì Consonant Chart

Plosives	p b		t d			k g	kp gb	
Nasals	m		n		ɲ	ŋ		
Fricatives		f	s	ʃ				h
Affricates				tʃ dʒ				
Trill			r					
Lateral			l					
Approximants					j		w	

Table 2: Èkiròmì Vowel Chart

	front	center	back
high	i, ĩ		u, ũ
mid	e, ẽ		o, õ
open-mid	ɛ, ɛ̃		ɔ, ɔ̃
low		a, ã	

Lau's (2019) corpus attests a few cases of palatalized consonants. No research has been undertaken so far on palatalization as a productive feature remains questionable. Another phonological process, which all Àbèsàbèsì dialects attest, is vowel harmony. Agoyi (2008, 2012) has carried out research on the topic and mentions different vowel harmony types in the dialects. Èkìròmì features one vowel harmony type solely controlled by the Advanced Tounge Root (ATR) feature and one type controlled by the ATR and the roundedness feature.

The tone system of all Àbèsàbèsì dialects consist of three register tones (high, mid, low). Agoyi and Emannuel (in preparation) are working on the tone system; the study added a falling tone to the three register tones as suggested by Agoyi (1997).

There has been little research on vowel deletion in Àbèsàbèsì. Elugbe (2012) suggests word final vowel deletion of /i/ and /u/ in a rather short remark to explain the coda consonants and thereby strengthen his argument of a genetic relationship between Àbèsàbèsì and the Edoid languages; a similar claim he had posited before in Elugbe (1989). Agoyi (2015) proposes an optimality account of the syllable structure in Àbèsàbèsì and likewise explains the phonetic coda consonants by assuming an underlying vowel that has been deleted. This process will be referred to as word-final vowel deletion. The current research has not come across any study on the rules that govern V_1 # V_2 vowel deletion in morphological boundaries in Àbèsàbèsì phonology.

3. Deletion as a Phonological Process

Studies show that deletion is "another common process in the languages of the world that involves the loss of a segment under specifically imposed conditions" (Oyebade 2008:69). The deletion process can affect any segment: consonants, vowels or suprasegmental phonemes in a given language (Oyebade 2001; Abiodun-Oyelaran 1972). In phonological study, the deletion of vowels specifically is called elision. In the following sections, this paper investigates V_1 # V_2 vowel deletion in Èkìròmì. The study will start by presenting the different domains in which vowel deletion occurs in the language before distinguishing the different types of vowel deletion as perceived in the data collected. Finally, it will propose derived rules determining the vowel deletion type in Èkìròmì as perceived in the data collected.

4. Vowel Deletion Across the Grammatical Domains

Vowel deletion in Èkìròmì can generally occur wherever two vowels meet across morpheme boundaries. As Èkìròmì shows a general distinction between verbs and nouns – with verbs starting with a consonant and nouns starting with a vowel, typical V # V occurrences can be found in the following grammatical domains:

Noun Phrase

- Noun + Nominal[4]

[4] Nominal is used here to encompass all kinds of noun-like words that start with a vowel. These include categories that are traditionally referred to as nouns, pronouns, numerals, adjectives

Verb Phrase
- Verb + Nominal
- Pronoun + Nominal (in ditransitive constructions)

Others
- Relativizer + Nominal
- Focus Particle + Nominal
- Interrogative Pronoun + Nominal

Additionally, Èkìròmì attests word-final vowel deletion. This phenomenon has already been described and analysed by Agoyi (2015).

4.1 Noun Phrases

Vowel deletion in noun phrases occurs when a noun is followed by another noun, a pronominal, numeral or adjective. Nouns can follow nouns to function as an attribute or to form a compound with the other noun. Data set 1 shows several noun + noun constructions, with all possible vowel qualities for V_1 except /u/. It can be seen that it is always the first of two colliding vowels that is deleted. The last column shows the quality of the first vowel respectively.

1						V_1
a)	afa book	+	oŋó-no wife-my	→	afoŋóno my wife's book	/a/
b)	ɛ̀gɛ̀ door	+	iʃo house	→	ɛ̀giʃo door of the house	/ɛ/
c)	áje mother	+	ɛna cow	→	ájɛna mother of the cow	/e/
d)	òli cloth	+	ɔ̀sɛ́-na father-my	→	òlɔ̀sɛ́na my father's cloth	/i/

e)	atɔ floor	+	iʃo house	→	atíʃo flor of the house		/ɔ/
f)	ajo eye	+	áj-no mother-my	→	ajájno my mother's eye		/o/

Other nominals modifying a noun behave exactly like nouns modifying nouns. The same kind of V_1 deletion can be observed. These nominals can be numerals (2a-b), demonstratives (2c-f) or adjectives (2g-h).

2

a)	ɔnĩ person	+	ekɪ̀̃ one/INDF	→	ɔnẽkɪ̀̃ one/a person
b)	iʃo house	+	íʃon five	→	iʃĩʃon five houses
c)	òwò hoe	+	èéni this	→	òwèéni this hoe
d)	òli cloth	+	ɛ̀dɛ́n that	→	òlɛ̀dɛ́n that cloth
e)	anĩ people	+	ìdín these	→	anìdín these people
f)	anĩ people	+	ìdɛ́n those	→	anìdɛ́n those people
g)	ɔnĩ person	+	ɛŋa new	→	ɔnɛŋa stranger
h)	ɔhunɛ tree	+	idug PL\big	→	ɔhunídug big trees

Noun + nominal constructions with /u/ as the first vowel, however, display a minor deviation from that pattern. Data set 3 shows constructions with /u/ as V_1 and changing V_2 values that are noted in the last column.[5] The mentioned deviation can be found in (3d) where the second of the two vowels is deleted instead of the first one. This occurs in a construction, where V_2 has the value /i/. Other constructions with /u/ as V_1 and /i/ as V_2 are given in data set 4. In all the data, in context, V_2 deletion is observed. This V_2 deletion seems to only be triggered by /u/ as V_1. Other vowels as V_1 in combination with /i/ as V_2 do not result in a V_2 deletion as shown in (1b), (1e), (2b), (2e), (2f), (2h) above. This weakens possible claims of /i/ generally being a 'weak' vowel that tends to be deleted – as it is attested in Yorùbá (Abiodun 2004).

3

						V_2
a)	onu mouth	+	áj-no mother-my	→	onujno my mother's mouth	/a/
b)	onu mouth	+	ɛna cow	→	onúna the cow's mouth	/ɛ/
c)	onu mouth	+	ebo dog	→	onébo dog's mouth	/e/
d)	onu mouth	+	iɲi water	→	onúɲi water side	/i/
g)	onu mouth	+	ɔ̀sɛ́-na father-my	→	onɔ̀sɛ́na my father's mouth	/ɔ/
f)	onu mouth	+	oɲó-no wife-my	→	onóɲóno my wife's mouth	/o/

[5] Note that V_2 can never be /u/, as Èkìròm does not allow words to start with a /u/. Moreover, a deleted /u/ in V_1 position often results in the labialization of the preceding vowel, unless the second vowel is rounded.

4

a)	òkú all	+	iniŋ thing	→	òkúniŋ everything	/i/
b)	òkú all	+	ig^{w}i material	→	òkúg^{w}i all materials	/i/
c)	ìtù heap	+	ilibɔ́ cassava	→	ìtùlibɔ́ cassava heap	/i/

Out of the eight possessive pronouns in Èkìròm, five start with a vowel, which means they could theoretically also trigger vowel deletion. These are: 3SG.HUM ‘u’, 3SG.NHUM ‘ɛ’, 1PL ‘ès’, 2PL ‘èn’, and 3PL.NHUM ‘i’. Examples for noun + pronoun constructions are displayed in dataset 5.

5

a)	òdè stool	+	u her/his	→	òdèu her/his stool
b)	òli cloth	+	u her/his	→	òlúu her/his cloth
c)	iʃo house	+	ɛ it	→	iʃɛ́ / iʃɛ́ɛ[6] its house
d)	iʃomo farm	+	ès our	→	iʃomes our farm
e)	atʃi egg	+	èn your (PL)	→	atʃeǹ your eggs

[6] In careful speech, speakers actually produce a version that attests no deletion but a full assimilation of the first vowel. The same holds for 5f)

f)	iʃo house	+	I their (NHUM)	→	iʃĩ / iʃĩi their house

Data set 5 reveals small differences to other noun + nominal constructions. The 3SG.HUM pronoun (5a-b) does not show any vowel deletion. Either, it is just concatenated to the noun, or an assimilation of V_1 takes place. The 3SG.NHUM and 3PL.NHUM pronouns (5c and 5f) trigger a deletion of V_1 or merely a full assimilation. The 1PL and 2PL pronouns (5d-e), on the other hand cause a regular V_1 deletion.

Regarding the V_2 deletion, the paper discovered in data sets 3 and 4, the only pronoun to trigger a collision of /u/ and /i/ would be the 3PL.NHUM pronoun 'i'. Data set 6 shows, neither assimilation nor a vowel deletion occurs when nouns ending in /u/ combine with the 3PL.NHUM pronoun. The expected V_2 deletion that has been shown to occur between /u/ and /i/ would result in the deletion of /i/. This would in fact delete the entire segmental material of the pronoun and in most cases leave no traces. The lack of deletion is thus necessary to protect the pronoun altogether.

6

a)	onu mouth	+	I their (NHUM)	→	onúi their mouths
b)	òkú cloth	+	I their (NHUM)	→	òkúi all of them

4.2 Verb Phrases

Vowel deletion in verb phrases can be observed when a noun follows a transitive verb. As most verbs end in a vowel and all nouns except for a few loan words start with a noun, this process occurs frequently. The verb + noun constructions in the following data set 7 show the same pattern of vowel deletion within noun phrases: The study encounters solely V_1 deletion if V_1 is one of the vowels /a, ɛ, e, i, ɔ, o/.

7

						V_1
a)	sà know	+	okpo way	→	sòkpo know the way	/a/

b)	tʃɛ̃̀rɛ̃	+	ɔnĩ	→	tʃɛ̀rɔnĩ	/ɛ/
	repair		person		door of the house	
c)	de	+	ɛnam	→	dɛnam	/e/
	buy		meat		buy meat	
d)	tʃi	+	oŋo	→	tʃoŋo	/i/
	have		wife		have a wife	
e)	lɔ	+	ísaj	→	lísaj	/ɔ/
	throw		stone		throw stone	
f)	logìnõ	+	ɛmũ	→	lògìnɛ̃mũ	/o/
	destroy		money		waste money	

Verb + noun constructions also attest V_2 deletion at the collision of /u/ and /i/. Data set 8 displays verbs ending in /u/ followed by nouns starting with vowels of different qualities. V_2 can be seen in the last column. The V_2 deletion occurs in (8d). Other examples of /u/#/i/ collision in verb + noun constructions can be seen in data set 9.

8						V_2
a)	ju	+	áj-no	→	jájno	/a/
	bury		mother-my		bury my mother	
b)	hu	+	ɛb^{w}ij	→	h^{w}ɛbij	/ɛ/
	hurt		goat		hurt the goat	
c)	nu	+	èkìròm	→	n^{w}ekirom	/e/
	go		Ìkáràm		go to Ìkáràm	
d)	du	+	ĩŋni	→	dũŋni	/i/
	fetch		water		fetch water	

e)	su annoy	+	ɔ̀sɛ́-na father-my	→	sɔsɛna annoy my father	/ɔ/
f)	ku choose	+	òlí-so fabric-your	→	kolíso choose your fabric	/o/

9

a)	ku choose	+	iniŋ-so thing-your	→	kuniŋso choose your thing	/i/
b)	ju bury	+	ìkpàr children	→	jùkpàr bury children	/i/
c)	nu go	+	idʒɔ farm	→	nudʒɔ go to the farm	/i/

10

a)	sù weary	+	èni you (pl)	→	sùènè you are weary	/i/
b)	su weary	+	su-àba weary them	→	sùba they are weary	
c)	mi do	+	èsì us	→	mèsì (do something bad to us)	
d)	ye see	+	èsì us	→	yèsì see us	
e)	ʧɛrɛ mend	+	èsì us	→	ʧɛrèsì mend us	
f)	mi do	+	àbà +ɛni them+case	→	mabɛni do bad things to them	

11

a)	kù make	+	èsì umang us laughter	→	kʷuèsì umang make us laugh
b)	ku make	+	àba umang them laughter	→	kʷuaba umang amuse them

4.3 Other Constructions

There are a couple of other constructions that trigger vowel deletion. These are all words with a grammatical function, such as the complementizer *mí*, the relativizer *mi*, the focus particle *gí* and different interrogative pronouns. All of these words can appear before the subject of a clause. This means that their final vowels get in contact with the initial vowel of a noun or subject pronoun and therefore face vowel deletion. None of these function verbs end with a /u/, which means that the combination /u/ # /i/ is impossible in this domain. The following data therefore lacks V_2 deletion.

12

a)	ìwé mi ɔ̌ de étʃe book REL 2SG buy market\LOC	→	ìwé mɔ̀ détʃe the book you bought at the market
b)	ɔmiɲá-u gí ǎ gba tʃá-u knife 3SG REL 2PL give him	→	ɔmiɲaú gâ gbà tʃaú you gave him his knife
c)	màdí àn é mĩ what you.PL ASP do	→	màdán jé mĩ what are you doing?
d)	ìnɛ́ ɔ̀ dò mí ɔ̀ gbà ná how_much 2SG want COMP 2SG give to_me	→	inɔ́ dò mɔ́ gbà ná how much do you want to give me?

5. Discussion

The data presented reveals the existence of two vowel deletion types in a V_1 # V_2 environment and cases where vowel deletion does not occur. The two vowel deletion types are V_1 deletion and V_2 deletion. In order to differentiate the three possible cases, their distribution rules will be formalized.

5.1 No Deletion

No deletion has been shown to occur only in the domains involving the three monosegmental object/possessive pronouns u, i and ɛ. The argument is that lack of deletion is not affected by the domain but rather by the fact that these morphemes consist of only one morpheme. Data sets 5 and 10 have shown that vowel deletion is not possible for those cases where the morpheme is at risk of being lost altogether. This is due to the combination of /u/ and /i/, which would otherwise affect V_2 deletion. A linguistic sign in the sense of Saussure has both a form (significant) and a meaning (signifié). If the form part consisting of only one vowel was lost entirely due to vowel deletion, it could not carry the meaning any more.

5.2 V1 Deletion

V_1 deletion could be confirmed in all grammatical domains. It will be easier to formalize rules for V_2 deletion and no deletion, because they occur in more specific cases. Therefore, V_1 deletion will be posited as the default case in this analysis. Hence, V_1 deletion will occur, where the distribution rules for V_2 deletion and no deletion do not apply.

5.3 V2 Deletion

V_2 deletion has only been confirmed in the grammatical domains of noun phrases and verb phrases. This is not a restriction on the grammatical domains per se but rather due to the fact that the other domains either do not permit the combination of /u/ and /i/ (section 4.3) or only provide monosegmental morphemes as the V_2 and therefore avoid V_2 (data set 6). V_2 deletion only occurs, if a high back vowel (/u/) follows a high front vowel (/i/). These two vowels generally play an important role in the phonology of Èkìròmì. They are the two final vowels that can be deleted at the end of a syntactic boundary (Agoyi 2015). Moreover,

the ATR+u vowel harmony type is only attested in the Èkìròmì dialect. This type causes vowels to harmonise based on the ATR feature but has a specific vowel value to harmonize with /u/[7].

All possible grammatical domains where V_1 # V_2 vowel deletion is possible have been listed. Having looked at the different vowel deletion types across the different domains, we posit the hypothesis that the distribution of the vowel deletion types is not affected by the grammatical domains. Both vowel deletion types occur in all grammatical domains, where they do not have to be avoided due to monosegmental morphemes and V_2 occurs in all grammatical domains, where the combination of /u/ and /i/ is possible.

The factor affecting the distribution of the vowel deletion types is the vowel quality (V_2 deletion) and the avoidance of vowel deletion is caused by monosegmental morphemes being the second vowel.

6. Conclusion

This paper has provided a description of vowel deletion in the Èkìròmì dialect of Àbèsàbèsì in a V_1 # V_2 environment. It has shown that Èkìròmì attests two types of V_1 # V_2 vowel deletion and cases, where no deletion occurs at all. While V_1 deletion has been shown to be the default case for most of the V_1 # V_2 combinations, V_2 deletion only occurs in specific cases. V_2 deletion is triggered by [+high] feature in construction where two [+high] vowels occur in morphological boundary. That is in environment where [+high, + round vowel /u/ is V_1 (occurs as a morphological final vowel position) and front high vowel /i/ feature as V_2, at word initial position. This rule is valid for all domains where this combination can occur except for monosegmental morphemes being V_2, where vowel deletion does not take place when the morpheme is at risk of being deleted all together. Moreover, grammatical domains have been shown to have no influence on vowel deletion.

This research adds another view on the various types of V_1 # V_2 deletion within the Benue-Congo language family and their distribution. This research could be expanded by investigating suprasegmental features that are affected or caused by vowel deletion.

[7] Claimed by Agoyi (2008). New data, however, reveals that /u/ and /i/ can have an inherent [+ATR] or [-ATR] value that does not reflect in the pronunciation, but only in vowel harmony. This is indicative of a convergence of /u/ and /ʊ/ as well as /i/ and /ɪ/. The specific vowel value to harmonize with /u/ only holds true for /u/ with an inherent [+ATR] value.

Nasalization, tones and labialization have been deliberately excluded from this work but could give further insight into the phonological system of Àbèsàbèsì.

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