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# **Phonological adaptation of Arabic names in Atebubu (Bono East Region, Ghana)**

## **Abstract**

This paper discusses the phonological processes embedded in some nativised Arabic personal names in Atebubu, in the Bono East Region of Ghana. The study shows that the main phonological processes entrenched in the nativisation process include segment deletion, vowel insertion, prothesis, substitution, consonant deletion, hypocorism, and free variation. These phonological processes are employed as a mitigation strategy to conform to the phonotactics of Akan. Moreover, the study shows that the Bono speakers usually substitute the consonants [ʃ, z, q, ɖɛ] with [ç, s, k, ɖɛ], respectively. Data for the study was gathered from both primary and secondary sources.

**Keywords:** Atebubu, Akan, Bono dialect, nativisation, phonological adaptation, personal names, pronunciation

## **1. Introduction**

Names are essential universal means that humans use to identify themselves and the world around them (Rashid 2014, Al-Qawasmi & Al-Haq 2016). They show how people perceive the world around them (Fadoro & Oludare 2014).

According to Agyekum (2006), a name refers to different elements of human experiences, that is, to an individual or a collective entity to which they are assigned or denote. In this regard, names play a referential function.

Besides conferring identity on people, naming practices give insight into the pattern of social and cultural organisations of communities and can be a key to broader cultural changes. They tell us about the social group and the name-giver and mostly tell us what is considered significant about the background and the events at the time of a person's birth. Personal names are not just arbitrary labels but sociocultural tags that have sociocultural functions and meanings (Agyekum 2006). Names have cultural and social contexts that identify the bearer or convey a wide range of invaluable information about the bearer. They store important socio-cultural as well as linguistic and typological information in the Akan culture.

A name identifies the person and at the same time, it can invoke a message, express a hope or a prayer or help us understand the culture, history, literature or religious tradition of a particular group of people (Fadoro & Oludare 2014, Asamoah & Akuamah 2021).

This paper seeks to discuss how Arabic personal names have been nativized in the Bono dialect of Akan, particularly those in the Atebubu environs. This study contributes widely to the anthroponomy and onomasiology of Akan and Arabic.

## 2. The Bono people

Bono is situated among the Akan people. The Bono people speak Bono Twi, which is a dialect of Akan, spoken in Ghana and some parts of Cote d'Ivoire (Osam 2003, Dolphyne 2006). It belongs to the Niger-Congo (Kwa group) languages (Adomako 2015). Akan is the largest ethnic group in Ghana (Agyekum 2006, Dolphyne 2006). Akan is the most widely spoken language of all the Ghanaian languages with over 49.1% native speakers and with 44.1% second language speakers (Dolphyne 2006). The Bono speakers popularly referred to as Abonofoɔ [abɔnɔfɔɔ] occupy the Bono and Bono East Region of Ghana surrounded by the Gonjas of the Savannah Region and the Asantes of the Ashanti Region. They are the third largest language group in Akan and constitute 4.6% of the entire population of Ghana (Ghana Statistical Service 2010). Bono as a dialect is spoken in the whole of the Bono Region and Bono East Region. The major Bono-speaking communities include Japekrom or Adansi, Berekum/Sunyani, Dormaa/Wamfie, Wankyi, Nkoranza/Kintampo, and Atebubu Bono (Truntenau 1976).

## 2.1. Islamic profile of Atebubu

The history of Islam in Atebubu is shrouded. However, the indigenes identified the first convert who subsequently brought the religion to their area as Nana Ata. The history of the advent of the Arabic language/names in Ghana and Atebubu can be traced to contact with the Arabic world and their subsequent acceptance of Islam. The contact with Muslim traders and Akan facilitated the adoption of many of the Islamic elements into the Akan culture (Compton 2014). The Arabic language and Islam are inseparable because it is the language of the Holy Qur'an. As stated earlier, there is no account of the exact date Islam was introduced to the indigenes of Atebubu. However, the evidence is traceable to 1892 when the Muslim traders moved to the newly emerged market centres like Atebubu, Kete Krachi, and Kintampo during the Salaga Civil War (Compton 2014). This facilitated the establishment of Islam in Atebubu and its surrounding communities. Hence, the Arabic language became the official medium for religious prayers, learning of the Qur'an in *makaranta* (a Hausa name for 'school') and as a subject in the Government established schools within the vicinity. Every Muslim is obliged to recite portions of the Qur'an when he or she is performing Salat in its original language, Arabic.

The belief is that Arabic is Islam's language and will be the language hereafter (Dumbe 2009). Thus, the people in the Islamic communities are unconsciously exposed to the Arabic language. Furthermore, every staunch Muslim is expected to bear an Islamic name and must name their children per the teachings of the Holy Qur'an and the Sunnah (Fadoro & Oludare 2014, Al-Qawasmi & Al-Haq 2016). Some Muslims in Ghana, and in this case Atebubu, also believe that Muslims' names are Islamic as a result of which they select them rather than their indigenous names.

Meanwhile, when these names are given or taken, they are nativised, pronounced, and manipulated as though they were Bono names. The focus of this study is to analyse the phonological processes involved in the nativism of these Arabic names in Atebubu Bono. This phenomenon can be understood when the sound systems of these languages are compared and contrasted in the context of natural phonology. Natural phonology (NP) opines that the phonology of a language is a system of subconscious mental processes that in real-time mediate between intended but unpronounceable lexical forms of utterances and pronounceable surface forms (Stampe & Dognegan 2009).

### 3. Religious names in Ghana

The practice of bearing a religious name is predominant in Ghana (Agyekum 2006, Enin & Nkansah 2015). A religious name is synonymous with the religious affiliation of the bearer's parents (Rashid 2014). This practice is common among Christians and Muslims. The fastest way to identify the religious affiliation of an individual in Ghana is by his/her religious name. Dumbé (2009) asserts that bearing a Muslim name serves as an identification mark in every Ghanaian society. Every true and devoted Muslim is expected to bear an Arabic name. Such names always allied themselves with the father's religion, relations, or social status (Rashid 2014).

Agyekum (2006) also postulates that the phenomenon of taking or giving a religious name in Ghana in addition to the indigenous name(s) is common in Ghana. He opines that the Akan personal names denote the culture, philosophy, thought, and environment, as well as their contact with the foreign culture. The practice has influenced the current generation causing some elites, mostly Christians and Muslims, to use these names as their first names. Also, some go to the extent of dropping their first Akan names and replacing them with the Christian or Muslim names. According to Agyekum (2006), some females are even offended when they are called by their indigenous names instead of their religious names. This attitude describes the extent to which people have embraced Christianity and Islam in Ghanaian society. This act has resulted in multiple Christian or Muslim names, which people bear with pride and equate with one's level of education and status in society.

In an attempt to investigate the communication functions performed by Bono names, Ansu-Kyeremeh (2000: 21) described them as being prototypically Akan. He then went on to describe the naming system of Bono as having the following characteristics: "two-name format made up of *din pa* or *agyaadin* [æɖɖadin] 'name given by the father', and *akradin* 'the day one is born'; that have no specific meanings; gender determined or differentiated names; multiple naming systems; dynamic naming systems".

Based on this, Ansu-Kyeremeh classified the Bono personal names into "(a) ascribed and given, (b) fixed circumstantial and flexible circumstantial, (c) gender-differentiated and gender-neutral, (d) substantive and substitute, and finally (e) day-related and non-day-related names" (21- 22). This author further noted that the Bono people of Ghana have two main systems in place, these are ascribed and given names. He explains the ascribed names are derived from the child's birth name whilst the give-names are names given to the child by the father. The

system gives room for names like month names, birth order names, nicknames or appellations, circumstantial names, and Christian and Muslim names to be given or taken (Enin & Nkansa 2016).

An obvious implication is that the Bono naming system is of a complex and dynamic nature. This complexity and dynamism present an ever-changing format that has transformed over time. For instance, Ansu-Kyeremeh (2000: 26) observed:

Nothing is more symptomatic of the dynamism of the Bono naming system than compound and hyphenated names. At the stage where indigenous names were replaced arbitrarily with Semitic or Euro-Hebraic names, indigenous *akradin* (first names) and in many cases *agyardin* or father-given *din pa* could not be used.

In light of the above, a new convert takes an Islamic name to conform to his new faith. They are given *nkramodin* 'Islamic name' which eventually replaces the first or surnames. Newborn babies, on the other hand, are given names through a practice that is different from the Bono naming system. In other words, culture and religion belong together, they are inseparable. Therefore, as people accept a foreign religion, they also accept the culture that comes with it. Therefore, names given or taken under such conditions only confer a religious identification on the individual.

Consequently, in an attempt to meet this complex naming system because of religious affiliation, the parents end up giving foreign names to their children, most of which are difficult to pronounce by speakers who are not even second-language speakers of the language of origin of the target names. The majority of such names are from the West and the Middle East. The researchers see this practice as the main reason why Muslims in Atebubu (New Konkrompe), who are predominately Bono people, bear Arabic names rather than their indigenous names. There are thousands of people in Ghana, particularly Atebubu, who bear Arabic names and practice Islam but do not speak Arabic.

They know a few phrases, but they cannot even understand them. In the process, the names are manipulated and nativized to conform to the phonotactic structure of their language to ease pronunciation. The strategies of their nativisation show a significant variation from other dialects, thus the need for and possibility of a detailed systematic study. Although a lot of studies have been conducted on Akan personal names, these studies have failed to examine foreign names taken or given in addition to the indigenous names. Hence, this study aims to add to the literature on onomastics in Akan. This paper sought to analyse the phonological processes involved in the nativism of Arabic names in Atebubu Bono.

## 4. Methodology

The qualitative research method was used in this study. According to Creswell et al. (2007), a qualitative research method is one that produces descriptive data in the form of words, written or spoken, of a person who can be observed. This means that qualitative research will provide descriptive data in the form of words rather than numbers, as quantitative research does.

### 4.1. Population and study area

According to the Ghana Statistical Service's (2010) Population and Housing Census, there are 35,462 Muslims in Atebubu, accounting for 33.5% of the total population in the Atebubu-Amantin Municipality. The researchers chose New Konkrompe as the study site on purpose because the majority of the population who are native speakers of Bono are Muslims. They practice Islam and have Islamic schools that teach Arabic from kindergarten to junior high school. On Saturdays and Sundays, there are a number of Islamic schools known as *ma-karanta* where children are enrolled to learn how to recite the Holy Qur'an. The individual mosques attached to private properties, as well as the large Central Mosque, made this location suitable for this study.

### 4.2. Data source

The data for this study were collected from both primary and secondary sources. The primary data was collected through interviews. Participants were also interviewed in their various settings in their homes, schools, and places of work to mention their names. They were asked to mention their Islamic names. Participants were further asked to mention the Islamic names of their parents, siblings, dependents etc. They were recorded using a recorder and later transcribed. The participants consisted of both monolinguals and bilinguals. Prior to the interview, the purpose of the study was made known to them. Only participants who consented to take part in the study were interviewed. A total of 50 participants comprising 25 males and 25 females aged 18-60 were interviewed. The interview period was from February 2019 to August 2019.

The secondary data were also collected from school registers at the New Konkrompe D/A Primary and D/A Junior High schools, respectively. This was to juxtapose the pronunciations of the names with their written shapes. We observed that the written forms of the Arabic names were heavily influenced by English orthography. All the Arabic names in this paper are names commonly borne by some Muslim people of New Konkrompe in the Atebubu/Amantin Municipality in

the Bono East Region of Ghana. Atebubu Bono has been selected for the study for the simple reason that the phenomenon is presumably predominant in this dialect.

After recording and subsequently transcribing the data, two Islamic scholars and one Imam in the community were consulted to ensure that the data collected were truly Arabic names. The data was scrutinised and names such as *Yaro* and *Kande* were deleted from our data because they were discovered to be of Hausa origin. In order to be sure that these names have been corrupted, the consultants helped by providing us with the original versions of these names. Further review via the Arabic names' dictionaries<sup>1</sup> eliminated the name *Ruṣḍiyya* because its language of origin was unclear. In all, one hundred and two (103) Islamic names were purposefully selected for the study. These names are from the students we taught, friends, colleague teachers, and church members.

Moreover, we transcribed the gathered Arabic names using the scientific transcription of Standard Arabic. This study adopts a Standard Arabic inventory for the Arabic names used. Tones were appropriately put on the sounds since Bono (Akan) is a tonal language. We juxtaposed the two forms as presented in the data. The descriptive approach was used for the analysis of data.

## 5. Bono sounds inventory

Bono as an Akan dialect has nine contrastive oral vowels /i, ɪ, e, ɛ, u, ʊ, o, ɔ, a/, one allophonic oral vowel /æ/ and five contrastive nasal vowels /ĩ, ɪ̃, ũ, ɔ̃, ɑ̃/ (cf. Schachter & Fromkin 1968, Dolphyne 2006, Adomako & Odoom 2021). At the systematic phonetic level, we say Akan has ten oral vowels and five nasal vowels. The vowel [æ] is in complementary distribution with /a/, where [æ] occurs before advanced high vowels as in /aduro/ [æduro] 'drug', /asikyire/ [æsitɕire] 'sugar' in Twi, and after an advanced high vowel in Gomoa, as in /sika/ [sikæ] 'money', /bura/ [buræ] 'well', and /a/ occurs elsewhere (Dolphyne 2006, Adomako 2015, Adomako & Odoom 2021). The ten oral vowels and the five nasal vowels are classifiable in terms of binary features as follows:

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<sup>1</sup> <https://www.almaany.com/ar/name> and <http://arabicnames.hawramani.com/>.

TABLE 1. Vowel feature specifications of Akan

Vowels	/i/	/ɪ/	/e/	/ɛ/	/æ/	/a/	/ɔ/	/o/	/ʊ/	/u/	/ĩ/	/ĩ/	/ã/	/õ/	/ũ/
High	+	+	-	-	-	-	-	-	+	+	+	+	-	+	+
Back	-	-	-	-	-	-	+	+	+	+	-	-	-	+	+
Low	-	-	-	-	+	+	-	-	-	-	-	-	+	-	-
ATR	+	-	+	-	+	-	-	+	-	+	+	-	-	-	+
Nasal	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+

Bono (Akan) and Arabic consonants are compared and contrasted in the study. According to Sabir & Alsaeed (2014), Standard Arabic has 28 consonants. Bono Twi, on the other hand, has 30 consonants. The differences between the two sound systems pose a common difficulty since some of the sounds are absent in the other language. These differences result in substitutions or omissions which depend on the sounds that exist or are absent in the other language. That is why the Atebubu Bono speakers replace the Arabic long vowels with short vowels. In addition, Bono Twi uses thirty consonants out of the thirty-four consonants of Akan. Only affricates and plosives have voiced and voiceless counterparts. Also, all nasals, approximants, and laterals are voiced. All the consonants can occur at the word-initial position but cannot occur at the word-final position except /m/, which surfaces at the word-final position at the phonetic level.

Atebubu-Bono is unique compared to the other dialects. Its uniqueness ranges from vocabulary to the realm of phonology. Names like *m'adwoa* 'my aunt', *amankamawuo* 'chameleon', *akamoto* 'toad' etc. are not used or understood by any of the Bono dialects of Akan. Phonologically, the Atebubu-Bono speakers, or instance, tend to delete /w/ when it occurs between two vowels. For example, *dawadawa* [dawadawa] 'a local spice from Northern Ghana' is pronounced as [doodaa]. Again, a town called *Sanwakyi* [sàniwǎɛɛɛɛ] is pronounced [sɪnǎɛɛɛɛ].

Hence, the same rule is applied in the Arabic name *Dāwud/Dāwūd* which is pronounced [dɔɔla]. The same can be said of [ħ] as in *Yahyā* [jáájá]. Also, [ɪ] is always deleted when it occurs after [m]. Therefore, Akan names like *Kwame* [kʷamɪ], are pronounced [kʷaam], *Nyame* [ɲāmɪ] is pronounced [ɲām], *Kyereme* [t͡ɕɪɾɛmɪ] is also pronounced [t͡ɕɾɛm], etc. These styles are carried over into Arabic when Arabic names are given to their children.

**TABLE 2.** Akan and Arabic consonant inventory

Manner of Articulation	Place of Articulation	Akan	Arabic
Plosive	Bilabial	p      b	b
	Alveo-dental		
	Alveolar	t      d	t      d
	Velar	k      g k <sup>w</sup> g <sup>w</sup>	k
	Uvular		q
	Glottal		ʔ
Nasal	Bilabial	m	m
	Denti-alveolar		
	Alveolar	n	n
	Velar	ŋ	
	Palatal	ɲ	
	Labio-palatal		
Affricates	Alveolar	ts      dz	
	Denti-alveolar		tʃ      dʃ
	Palatal		
	Alveopalatal	tɕ      dɕ	dʒ
	Labio-palatal	tɕʷ      dɕʷ	
Fricatives	Dental		θ      ð
	Labio-dental	f	f
	Denti-dental		sʃ      ðʃ/zʃ
	Labio-palatal	ɕʷ      ɕ	
	Alveolar	s	s      z
	Alveopalatal	ɕ	ʃ
	Uvular		χ      ʁ
	Pharyngeal		ħ      ʕ
	Glottal	h	h
Approximants	Alveolar	l	l
	Denti-alveolar		
	Trill	r	r
	Palatal	j	j
	Labio-velar	w	w

## 6. Discussion and findings

This section discusses the various phonological processes embedded in the pronunciation of Arabic names by the Bono people of Atebubu in Ghana. These

processes are used as a mitigation strategy to modify the complex segments or segments that are absent in Akan for easy articulation.

### 6.1. Truncation

Truncation is defined as a linguistic phenomenon consisting of cutting up, trimming, or mincing a word to produce a shorter version of the word by loss of material. In the process, one or two syllables may be cut off at the beginning or the end of the word. It is a syllable structure process employed to repair the violations of phonotactics constraints in the Akan language. In this process, a whole segment is deleted from a word. Two types of segment deletion are identified in this study: apocope and aphaeresis. Aphaeresis is the deletion of the initial part of the word. Let us examine the data examples (1a-j).

(1)	Arabic Name	Bono Form	Transcription
a.	ʃAbd al-Xabīr	Kabiru	[kæbírú]
b.	ʃAbd al-ʃAzīz	Azizu	[æsisù]
c.	ʃAbd al-Wāḥid	Wahidu	[wàhìrú]
d.	ʃAbd ar-Razzāq	Razak	[ràsákì]
e.	ʃAbd al-Maǧīd	Majid	[màdʒídì]
g.	ʃAbd al-Ḥamīd	Hamidu	[æmídú]
h.	ʃAbd al-Laṭīf	Latifu	[lætífù]
i.	ʃAbd al-Bašīr	Basiru	[bæsíró]

It can be seen that the first part of the name *ʃAbd* (*ʃAbd ul-*, *ʃAbd al-*) which means ‘servant of...’ is clipped in the Bono version. The second type of deletion is apocope. It is the result of a process by which a segment is deleted from the final position of a word. See the example in (2a) below.

(2)	Arabic Name	Bono Form	Transcription
a.	Qamar ad-Dīn	Kamara	[kàmàrà]

In the above example, it can be seen that [ad-di:n], which means ‘religion’, attached to the names, is truncated. Like the aphaeresis, after deleting the name, it is manipulated to conform to the phonological structure of Bono.

### 6.2. Consonants deletion (h-deletion)

The consonant deletion occurs when a consonant in the syllable-initial or syllable-final position is omitted as shown below.

(3)	Arabic Name	Bono Form	Transcription
a.	Ḥabīb	Habibu	[æbíbú]
b.	Ḥabība	Habiba	[æbíbà]
c.	Ḥalīma	Halima	[ælí má]
d.	Ḥāfiḍa	Hafisa	[æfísá]
e.	Ḥamad	Amadu	[ámædú]
f.	Hāḡar	Ajara	[àḡzálà]
g.	Ḥamīda	Amida	[æmídà]
h.	Ḥabīb ʔAllāh	Abibulai	[ábíbúláéi]
i.	Hāšim	Hashim	[æçím]
j.	Hamza	Hamza	[àmsá]
k.	Yahyā	Yahaya	[jáájá]

In the above data (3a-i), the sound [h] is dropped or is not pronounced by Bono speakers of Atebubu when it begins an Arabic name. This pattern is systematic in cases where [h] is followed by [a] at the word-initial position. The phenomenon seems to agree with the assertion that [h] often is the “victim” of deletion because speakers can save time and effort by deleting them without sacrificing much information. A similar phenomenon also occurs in the word medial with [ḥ], as exemplified in (3j). In the data above it can be seen that [ḥ] is deleted at the word medial position.

### 6.3. Vowel insertion

Nathan (2008) posits that segments cannot only be deleted but sometimes inserted as well. Insertions are done to prevent clusters of consonants that violate syllable structure constraints in the language and to make complex segments that are consistent with a language, easy to produce. It may occur at the beginning, middle, or end of a word. Let us examine the examples in (4a-j).

(4)	Arabic Name	Bono Form	Transcription
a.	Salāma	Salamatu	[sàlámàtá]
b.	Yaʔqūb	Yakubu	[jáekùbú]
c.	ʔAwwal	Awal	[àwáɪ]
d.	Ṭāhir	Tahiru	[táhírò]
e.	ʔAyyūb	Ayuba	[æjúbá]
f.	ʔAmīn	Aminu	[mínú]
g.	Fārūq	Faruk	[færukú]
h.	Nāšir	Nasiru	[nsírú]
i.	Šahīb	Shaibu	[çæibu]
j.	Sādāt	Sadat	[sádàtì]

It is discernible that all the Muslim names that end with consonant sounds end with a vowel in the Bono dialect form because Akan prefers open syllables to closed syllables. This is done in line with the phonotactic structure of the Akan language (see Dolphyne 2006, Adomako et al. 2021). Another noticeable phenomenon regarding the vowels added at the final positions is that the addition was not arbitrary but followed a specific systematic pattern. It was observed that the final consonants, that were added to each name, were strictly influenced by the vowels that preceded the final consonants. Therefore, for all the names that had their final consonant preceded by high vowels, high vowels were added to them at the word final. The same can be said of the low vowels that preceded the final consonants. So, it is predictable how the native Bono speaker produces the vowel that precedes the final consonants and determines the vowel to be added at the end of the names.

The second kind of insertion is employed to prevent consonant clusters that are impermissible consonant clusters from occurring. Thus, if a cluster is made up of the same consonants and is not allowed in Bono (Akan), one of them is deleted. The practice is in line with the phonotactic structure of the Bono (Akan) Language. In the Akan language, only a few such clusters are permissible. Aside from those clusters, when names with such impermissible clusters are encountered in Arabic names, vowels are inserted. This is done to break up the cluster to make the segment pronounceable to the native speaker of Bono. Examples are presented in the data (5a-f).

(5) Arabic Name	Bono Form	Transcription
a. ʕAbd ʔAllāh	Abdulai	[ɛ́búruɓéí]
b. ʔAbū Bakr	Abukari	[búkǽrí]
c. Luqmān	Lukuman	[lùkúmaní]
d. Kubrā	Kubura	[kúbúrá]
e. Sawdā	Sauda	[sàudà]

The examples in (5a-e) demonstrate that vowels are inserted in between [bd], [kr], [qm] and [wd] to break the consonant clusters in these names. This phenomenon is very common in Akan phonology. This is because Akan does not have a consonant cluster, thus, to break that cluster, a high vowel is epenthesised. This process helps the borrowed structure to conform to the syllable structure of Akan (cf. Adomako 2008, Apenteng & Amfoh 2014).

6.4. Free variation

As the data show, /r/, /l/, and /d/ are used interchangeably. /r/ is pronounced as either /d/ or /l/ in all the Akan dialects. In Akan, /r/ does not occur at the word-initial

position, except in the case of progressive tense, where the progressive marker {rɪ-} is sometimes deleted in Twi, except in the Fante dialect. These sounds are considered free variants because they do not contrast in meaning. So, in this situation, the logical option available is to substitute the alternative sounds in place of the /r/ at the word-initial position. At the intervocalic position, the same process happens. Let us examine the data in (6a-h).

(6) Arabic Name	Bono Form	Transcription
a. Rašīda	Rashida	[læçídá]
b. Rašād	Rashad	[læçádá]
c. Ruqayya	Rukaya	[lúkàjà]
d. Hāḡar	Ajara	[àdḡálà]
e. Ġamāl	Jamal	[dḡámárú]
f. [Raḡma]	Ramatu	[dámæ̀tú]
g. Ruqayya	Rukayah	[dádḡiá]

We observe in (6a-d) that /r/ is replaced with /l/ while in (6e), /l/ is also substituted with /r/. Meanwhile, examples (6f, g) reveal that /r/ can also be replaced by /d/ without altering the meaning. The data demonstrate, based on the assertion, that /r/, /l/ and /d/ are free variants in Bono (Akan) as in the case of Akan in general.

## 6.5. Consonant substitution

The consonants /q/ and /z/ are replaced by /k/ and /s/, respectively. The reason is that these consonants /q/ and /z/, do not exist in Akan and, in this case, in Bono. These *strange* sounds present difficulties to the Bono people who as a result replace them with equivalent sounds present in their dialect, as illustrated in (7a-k). They use this as the only mitigation strategy to solve that segmental problem.

(7) Arabic Name	Bono Form	Transcription
a. Šādiq	Sadiqqick	[sàdíki]
b. Fāyiza	Faiza	[fáìsà]
c. Zubayr	Zuberu	[sùbæ̀rù]
d. Zaynab	Zinabu	[sànáèbù]/[dḡináèbù]
e. Zakariyyā	Zakari	[sákálí]
f. Qāsim/Qasīm	Kasim	[kásòm]
g. Rafīq	Rafique	[ráfíkí]
h. Tawfīq	Tawfik	[tɔ́fíkí]
i. Rafīqa	Rafika	[lǽfíká]
j. Razāq	Razak	[rásæ̀kí]
k. Šafīq	Shafique	[çáfíkí]

Again, [ɕ] replaces [ʃ], and [d͡ʒ] is also replaced by [d͡ʒ̥] as shown in the examples (8a-e).

(8) Arabic Name	Bono Form	Transcription
a. Ġabbār	Jabaru	[d͡ʒ̥abæru]
b. Sirāġ	Suraji	[súrád͡ʒ̥ɪ]
c. Šarīf	Sharifu	[ɕærífa]
d. Hāšim	Hashim	[æɕím]
e. Rašīda	Rashida	[láɕídá]

Again, the consonant /k/ occurs in both Arabic and Akan, but Bono speakers replace it with [t͡ɕ], as shown in the names in (9a, b) below. The reason is that [k] and [t͡ɕ] are considered allophones of the same phonemes /k/ in Bono. [t͡ɕ] mainly occurs before front vowels while [k] occurs elsewhere. So, when a word of this nature is presented to the native speakers of Bono, they invariably apply the phonotactic rules to the “strange” word. Similarly, [ʃ] is released as [ɕ] when it occurs before a front vowel [i] whilst [h] occurs elsewhere as exemplified in (9c).

(9) Arabic Name	Bono form	Transcription
a. Šakīb	Sakibu	[sæ̀t͡ɕíbú]
b. Sakīna	Sakina	[sæ̀t͡ɕíná]
c. Māhira	Masira	[mæ̀ɕírá]

## 6.6. Vowel substitution

It was also observed that the Bono speakers substitute some vowels in the Arabic names, replacing them with a different vowel, although such vowels are present in the Bono language. A few examples are given in (10a-d) below.

(10) Arabic Name	Bono Form	Transcription
a. Qāsīm/Qasīm	Kasim	[kásum]
b. Fāṭima	Fatima	[fátumà]
c. ʔĀdam	Adamu	[ádem]
d. ʕUmar	Umar	[ómààlɪ]

As exemplified in 10a and 10b, /i/ in Arabic names is replaced by [ʊ] in the Bono version. This is due to the process of labialisation. The labial nasal consonant /m/ spreads its labial feature regressively to modify the high front vowel to emerge as a high back vowel. Also, /a/ is replaced by [e] due to the process of [ATR] vowel harmony as observed in 10c. The [+ATR] high back vowel /u/ in the

Bono form spreads its [+ATR] feature to modify the [-ATR] low vowel /a/ to surface as [+ATR] mid-high vowel. After that, the trigger /u/ is deleted. This is what Odoom (2022) termed as “the feeding and bleeding rule”. Finally, it can be seen that /o/ is substituted for [ɿ] because [ɿ] is not present in the Bono sounds inventory. It must be pointed out that most of the vowel substitutions at the word medial could not be accounted for by the phonotactic structure of Akan.

## 6.7. Prothesis

Prothesis involves the insertion of extra consonants at the beginning of a segment. It is interesting to know that /z/ does not occur in Akan and the speakers of Bono in most cases replace it with /s/, its closest equivalent. To resolve this challenge clearly, /n/ is added before the /z/ as shown below.

(11) Arabic Name	Bono Form	Transcription
a. Zaynab	Zinabu	[nzínæbú]
b. Zayna	Zena	[nzæíná]
c. Zulayxa	Zuleiha	[nzúlæíhá]

It can be observed from the examples (11a-c) that the nasal consonant /n/, which is produced at the same place of articulation as /z/ (a sound borrowed from Arabic), is placed before the /z/ to obtain the cluster [nz]. When this is done, the native speaker of Bono in Atebubu can produce it with less effort. This trend occurs in the word initials only. There is no such cluster in this dialect that supports this phenomenon. Like English, non-nativised foreign words with impermissible sequences may be allowed in special cases as posited by (Katamba 1993). This may be considered an accidental gap in the Atebubu Bono dialect.

Another form of the prosthesis is inserting a consonant in front of a vowel segment. This strategy is adopted to prevent /u/ and /i/ from occurring at the beginning of a name. This is done because the vowel distribution in the Bono dialect of Akan does not permit /i/ and /u/ to occur at the word-initial position. In the process, a consonant is inserted before the vowel to ease pronunciation, as exemplified in (12 a-c).

(12) Arabic Name	Bono form	Transcription
a. ʕīsā	Issah	[jísá]
b. ʔismāʕil	Ishmail	[jíʕímæíʔil]
c. ʕlbād	Ibad	[jíbádí]
d. ʔlbrāhīm	Ibrahim	[jíbræhím]
e. ʕUṭmān	Usaman	[wúsúmæni]

As demonstrated by the data (12a-d), in all the Arabic names which begin with /i/, Bono speakers insert [j] before them before they can pronounce them. Similarly, [w] was inserted before [u] since [u] cannot occur at the word-initial position.

6.8. Hypocorism

Almost all the personal day names in Akan have hypocoristic forms. For instance, a male born on Sunday is by default called Akwasi/Kwasi, the hypocoristic forms are à.kwé.s/kwàá/kè.é, while the female counterpart is Akosua with àkós' as the hypocoristic form (cf. Obeng 1997 2001, Adomako 2015). In the same vein, when the Arabic names are nativised, their hypocoristic forms surface. Examples are given in the data below.

(13) Arabic Name	Hypocoristic Form (Bono)
a. Munīr	[mùní]
b. Zaynab	[æbú]
c. Salāma	[sàlá]
d. Razāq	[ækí]
e. Zakariyyā	[sák]
f. Fāṭima	[fátì]
g. Luqmān	[lùkú]
h. Sulaymān	[sùlé]
i. Muṣṭafā	[ntàká]
j. ʔIbrāhīm	[jìbró]

It is observable from (13a-j) that the hypocoristic versions of the names are disyllabic, as in (13a-j), while (13i-j) is trisyllabic in form. A closer look at the data reveals that these forms do not have any systematic pattern.

7. Conclusion

In conclusion, this paper has studied the phonological processes involved in the nativisation of some Arabic names into Akan by the speakers of Bono. It has been observed that in the nativisation of some Arabic names, phonological processes such as segment deletion, free variation, vowel substitution, consonant substitution, consonant insertion, and vowel insertions occur. The process of vowel addition is not randomly done but follows a systematic pattern. When the Arabic names are adopted to the Bono dialect of Akan, they undergo systematic substitutions, many of which cannot be explained by a system of rules based on native alternations. The study also lent credence to the fact that [r], [l], and [d]

are free variants in Akan as claimed by Dolphyne (2006). The educational implication is that the body of information provided by this study can serve as a source of understanding for policymakers, researchers, Arabic teachers, and instructors, as Arabic is taught as a subject in some schools at all levels of education in Ghana. Finally, this study will help both teachers and policymakers to appreciate the real challenges that will emerge as the Arabic language is now a subject in some schools at the basic and senior high school levels in Ghana under the new curriculum.

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