



A PHONOLOGICAL ANALYSIS OF GOKANA SOUND SYSTEM AND ITS IMPLICATION FOR SECOND LANGUAGE ACQUISITION.

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ABSTRACT: *Gokana is used to refer to the language spoken by the people in Gokana local government area of Rivers State, Nigeria. Studying the phonology of Gokana helps to provide the peculiar features of its sound system, together with its vowels and consonants. A proper comprehension of these features makes it easier to recognize how Gokana is different from other languages like English, Hausa, Efik to mention just a few. This study was set to ascertain the key phonological features of Gokana and how these features can influence the acquisition of second language. This study adopted a survey design. Several trips to all the communities in Gokana were made to observe the sound patterns of speakers in order to validate the true sound structure of Gokana. Aside our intuition as native speakers of Gokana, oral interview was employed where necessary to clarify controversial linguistic issues. It was observed that some sounds which are present in the English language such as /θ, ʃ, ð, ʌ, ɒ, / together with the diphthongs are not found in Gokana. Consequently, most Gokana speakers replace those sounds with the closely related ones from the sounds obtainable in Gokana especially in their L2. Again, it was observed that many Gokana native speakers find it difficult to articulate correctly any word that has the sound /r/ at initial or medial positions. Findings further revealed that the phonological features of Gokana have a serious implication on second language acquisition.*

KEYWORDS: Phonology, Gokana sound system, second language acquisition.



INTRODUCTION

Every language is unique and Gokana is not an exception. One of such things that make one language differ from another is the sound system. Gokana is an autochthonous language spoken in Gokana Local Government Area of Rivers State, Nigeria. Gokana (as a local government) share a common boundary on the North by Tai, speakers of the Tee language and on the West by the Okrika; on the South by Bonny and Andoni, speakers of Ibani and Obolo languages respectively and on the East by Khana, speakers of Kana language. Among all her neighbours, Khana, Tai, Baa and Eleme are very closely related to Gokana people. Infact, they share strong linguistic relationship.

The language of the people of Gokana kingdom is called 'Gokana'. It is spoken in all the seventeen villages of Gokana local government area which are: Bodo, Kpor, Bomu, Lewe, Mogho, Gbe, Nweol, Bera, Yeghe, Baranyowa Dere, Kegbara Dere, Biara, Deken, Nwebiara, Barako, Deeyor and Giokoo. Gokana is the first language and mother-tongue of the people of Gokana. It is the major means of communication in the locality. It is the prevailing language used in every social gathering in the area. Gokana is a language of narrow communication. It is classified linguistically as one of the Niger-Congo languages (Williamson & Blench, 2000).

Studying the phonology of Gokana helps to provide the peculiar features of its sound system, together with its vowels and consonants. A proper comprehension of these features makes it easier to recognise how Gokana is different from other languages like English, Hausa or Efik. It will further reveal potential areas where learners may likely experience pronunciation difficulties.

In view of the above, this study therefore is set to ascertain the key phonological features of Gokana and how these features can influence the acquisition of second language.

Gokana was first mentioned in the linguistic literature in 1959 when Hans Wolff published on the *Subsystem Typologies and Area Linguistics*. This publication provided the phonemic systems of some forty Nigerians languages including Gokana, by inventory (Isaac 4). Years later, other scholars such as Hyman, Barikor, Zua, Lemon, Vobnu among others also wrote on other aspects of Gokana such as grammar, ideophones, syllable structure, to mention just a few. Since then, not much work has been done on phonological analysis of the language especially as it affects second language acquisition.

The aspect of linguistic that examines the sound structure of language is known as phonetics and phonology. The study of phonology makes it possible to analyse the sound system of a language. Chomsky & Halle (7) observe that 'phonological analysis seeks to uncover the rules and representations that underlie the organization of speech sounds in the mind of the speaker'. Sound is the basis of every language. 'Language acquisition begins with the observation and learning of the sounds existing in the particular language of study' (Ukpai 2). This position agrees with Kenstowicz (3) who argues that 'a language sound system is not merely a collection of sounds, but a structured system of contrasts and patterns that speakers unconsciously know and use'.

With respect to sound, Mensa and Mensa (39) posit that, a sound is 'the natural medium for the transmission and reception of language and speech sounds are distinctive set of sounds in a given language. Two classes of sounds – vowels and consonants are usually classified as speech sound. It is important to note that spelling, or orthography, does not consistently



represent the sounds of a given language'. This was supported by Oti-Owom (3) who highlighted some problems with ordinary spelling to include the following:

1. The same sound may be represented by many letters or combinations of letters: he/ hi:/, people /pi:pl/, key /ki:/, believe/ bili:v/, seize/ si:z/, etc.
2. The same letter may represent a variety of sounds: father /fa:ðə/, village, /vilidʒ/, badly /bædli/, made /meid/ many /meni/ etc
3. A combination of letters may represent a single sound: shoot /ʃui:t/, character /kærəktə/, Thomas (θoməs), either /i:ðə/, physics /fizks/, rough/ rʌf/etc.
4. Some letters in a word may not be pronounced, at all: autumn /ɔ:təm/, sword /sɔ:d/, resign/rizain/ lamb /læm/, corps /kɔ:/ etc. (emphasis mine).

As observed by Tsojon and Aji (25) 'pronunciation is a vital aspect of language learning as poor pronunciation distorts or mars the communication processes. In the same vein, Al-saidat argues that 'the ultimate goal of most second language learners is to attain native-like fluency. They want to be indistinguishable from native speakers' (21). For many learners in Nigeria, this has not been easy especially in the area of stress placement and timing, intonation control and most especially, the wrong pronunciation of words. In the opinion of Chitulu and Nyemanze (29) 'this is because of the fact that learners have to grapple with a lot of factors – his mother tongue, teacher-induced errors, apathy to language learning, peer group, and other factors'.

Theoretical Framework

This work is rooted in Contrastive Analysis Theory. Contrastive analysis is a detailed comparison of two pair of languages with the aim of bringing out their area of differences and similarities which could be found in morphology, phonology, or syntax. For James (3), contractive analysis is the comparison of two languages (or subsystems of languages) to determine their similarities and differences.

According to Lado (2), (who is regarded as the initiator of contrastive analysis CA) 'the student who comes in contact with a foreign language will find those elements that are similar to his native language simple and those elements that are different difficult'. Contrastive analysis came into limelight in the 1950s and 1960s within the framework of structural linguistics and behaviourist psychology. Contrastive analysis is relevant to this study in the sense that it will provide insight that will enable us to distinguish the phonemes in the source and target languages (Gokana and English). The differences and similarities that are identified in the two languages will enable us to design an efficient teaching and learning methodology that will help Gokana learners of English.

The challenges of Learning English as L2 in Nigeria

For this study, we refer to a Gokana speaker as a Nigerian learner of English. The Nigerian learner of English is already a linguistic adult by the time he learns English, unlike the native speaker who acquires the language as a child. A linguistic adult already will have learned one language, which is his mother tongue, before learning English. Since he already has his



language to cater for his immediate needs, he does not feel the urgency to learn English as does the EMT (English as Mother Tongue) child acquiring it (Lamidi 25).

Moreover, the Nigerian learner of English learns it as a second language. He naturally transfers some features from his mother tongue to the second language; such features may hinder or facilitate his learning of the language. This agrees with Ogundepo (2) submission that 'one major factor which indeed needs more examination is the effects of the learner's mother tongue on their target language (English)'. Speaking on the role of first language, Archibald (400) claims 'one of the most easily recognizable traits of second language learner's speech is that it bears a certain resemblance to the first language. Thus, someone whose first language is French is likely to sound different from someone whose first language is German when they both speak English.

Problems of Learners of English in Nigeria

The problems confronting the Nigerian learner of English as a second language are enormous. Akindele & Adegbite (139 – 42) give a detailed explanation of some six problems that pose some challenges to the Nigerian learner of English to include the following:

The Linguistic Data

According to them, before the learner can learn English adequately, there must be availability of raw data. They argue that in an EMT environment, there is abundant data in natural and artificial setting all surrounding the child, at home at school, at play, everywhere. But the ESL learner is exposed to limited data in his environment.

The Agents of Exposure

According to them, the agents of exposure which include parents, friends, teachers, books, and the mass media, among others are all present in an EMT situation; whereas not all are in abundance in an ESL situation.

Language Development

According to them, language development can be affected by the learner's predisposition and attitude towards learning. They added that while there may be derogatory comment from envious non-English speaking people to discourage the learners, on the other hand, there may be pressure from the learner's family on him to achieve a high proficiency in the language for socio-economic reasons.

Lack of Correlation between Phonetic & Orthographic Features

Below are some of the things they based the above title on:

- (i) /f/ - fight, enough, phallic
- (ii) /g/ - get, ghost, rogue
- (iii) /t/ - tent, bottle
- (iv) /u:/ - pursue, through, foot, route



(v) /i:/ - sea, see, quay, deceive, belief

(vi) /ei/ - bay, fail, late

METHODOLOGY

A survey design was adopted for this study. Several trips to all the different communities in Gokana were made to observe the sound pattern of speakers (male and female, old and young speakers of different ages) in order to validate the true sound structure of Gokana. Aside our intuition as native speakers of Gokana, oral interview was employed where necessary to clarify thorning linguistic issues.

Basic English Phonology

In an attempt to facilitate our analysis of Gokana sound system, we will present the English and Gokana phonological system in table 1 and 2 respectively.

Table 1: English Phonetic consonant

MANNER OF ARTICULATION	PLACE OF ARTICULATION								
Plosive	Bi-Labial	Labio-dental	Dental	Alveolar	Post-Alveolar	Palatal Alveolar	Palatal	Velar	Glottal
Fricative	p b			t d				k g	
Affricate		f v	θ ð	s z		ʃ ʒ			h
Lateral				l		tʃ dʒ			
Approximant	w				r		j		
Nasal	m			n				ŋ	

Source: (Adesanya 2003)

The reference point for this study is the British English, which is also called Received Pronunciation (RP). It contains 24 consonant phonemes which are classified into place of articulation and manner of articulation. The major places of articulation are: bilabial, labio-dental, dental, alveolar, post alveolar, palatal, velar and glottal.

Table 2: Gokana Consonant Chart

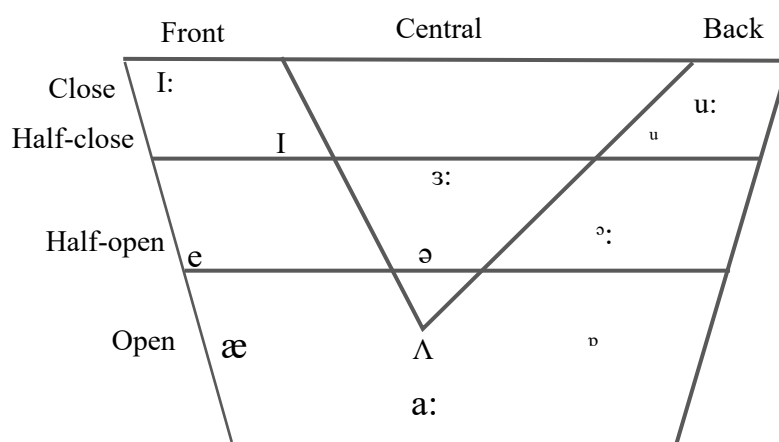
Place/Manner	Bilabial	Labio-dental	Alveolar	Post-Alveolar	Labio-Velar	Velar
Plosive	p b		t d		Kp gb	k g
Fricative		f v	s z			
Lateral			l			
Approximant				r		
Nasal	m					



There are sixteen (16) phonetic consonants in Gokana. These sounds are described below:

- /p/, a voiceless bilabial plosive as in Péé – fly
- /b/, a voiced bilabial plosive as in ból-goat
- /t/, a voiceless alveolar plosive as in té – father
- /d/, a voiced alveolar plosive as in dōm- husband
- /k/, a voiceless velar plosive as in Kááni- firewood
- /g/, voiced velar plosive as in gimá – knife
- /kp/, a voiceless labiolized velar plosive as in kpá – book
- /gb/, a voiced labiolized velar plosive as in gbáá – year
- /f/, a voiceless labio dental fricative as in fá-intestine
- /v/, a voiced labiodental fricative as in vá – wife
- /s/, a voiceless alveolar fricative as in silá-first daughter
- /z/, a voiced alveolar fricative as in zór – devil
- /l/, an alveolar lateral as in lá- second son
- /r/, a post alveolar approximant as in bári – God
- /m/, a bilabial nasal as in mii – wine
- /n/, an alveolar nalsal as in nómà – old

Table 3: English vowel chart



There are twelve (12) vowel sounds and eight diphthongs in English. Five out of the twelve vowels are long while the remaining seven are short vowel.

**Long vowels**

Vowels	Words
/i:/	see
/u:/	food
/ɜ:/	bird
/ɔ:/	court
/a:/	car

Short vowels

Vowels	Words
/æ /	fan
/e/	pen
/a/	cot
/ʌ /	sun
/ʊ /	push
/ə /	above
/i/	pin

Diphthongs

/ei/	pay
/ai/	fight
/əʊ/	home
/iə/	ear
/eə /	here
/aʊ/	shout
/ɔi/	oil
/eə/	care

Gokana vowel sounds

There are seven (7) vowels in Gokana (Vobnu 75)

They are described as follows;

a	as	in	ká	-	mother
e	as	in	ké	-	egg
ɛ	as	in	tɛ	-	father
i	as	in	ni	-	root
o	as	in	boo	-	rain
ɔ	as	in	tɔ	-	house
u	as	in	dúr	-	come

Nasalization in Gokana

Nasalization is the process whereby a sound is pronounced through the nose. Such a sound is called a nasal or nasalized sound (Vobnu 35)

There are five (5) nasal vowels and two (2) nasal consonants. They are described as follows:

Nasal vowels

ǎ	as	in	dǎ	-	‘hear
ẽ	as	in	dẽẽ	-	‘eye’
ĩ	as	in	bĩo	-	‘nose’



ð as in tō - 'ear'
 ũ as in sũg - 'anger'

Nasal consonants

m as in mau - 'laughter'
 n as in nu - 'thing'

Table 4: Sounds present both in English & Gokana

English	Gokana
p b t d k g	p b t d k g
f v s z	f v s z
m n	m n
l r	l r
æ e i u	a e i u

Table 5: sounds present in English but absent in Gokana

English	Gokana
θ ð ʃ ʒ	
ʧ ŋ j	
ə ʌ u: ɜ: ɒ i:	
ei ai au iə uə eə ɔi	

ANALYSIS / DISCUSSION

Some sound which are present in the English language such as /θ, ʃ, ʒ, ʧ, ŋ / etc, cannot be found in the sound system of Gokana language.

Consonant, Gokana speakers replace those sounds with the closely related ones from the sounds obtainable in Gokana language. We begin our analysis with consonants.

Consonants

The post alveolar approximant /r/ does not occur at word – initial in Gokana but medially. Again, /r/ is not frequent except its occurrence in the name given to God and in the names given to certain communities such as: Bari (God), Dere, Biara Bera, Barako and nwebiara (all these are names of community in Gokana). Because the above sound is not frequent in Gokana, most Gokana speakers normally replace it with the alveolar lateral sound /l/, thus:

Bari is now pronounced as bali
 Dere is now pronounced as dele
 Biara is now pronounced as biala
 Barako is now pronounced as balako
 Bera is now pronounced as bela
 Nwebiara is now pronounced as nwebiala



Consequently, most Gokana L1 speakers often transfer the pronunciation problem above to their L2, which is English. This has made some Gokana L1 speakers to mispronounce some English words as shown below:

English	Gokana
Report /ripɔ:t/	/lipot/
Right /rait/	/lait/
Precious /preʃəs/	/plesios/
Scratch /skrætʃ/	/sklat/
Library /laibri/	/laibli/

The dental fricatives / θ / and / ð / are not in Gokana, consequently, Gokana L1 speakers often replace /θ/ with the alveolar /t/, /ð / with the alveolar /d/ especially when it comes to the speaking of their L2. This is shown in the example below:

English	Gokana pronunciation
think / θɪŋk/	/tink/
mouth /məʊθ /	/ maut/
thigh/ θai/	/tai/
method /meθəd/	/metod/
anthem /ænθəm/	/antem/
these /ði:z/	/diz/
them /ðem/	/dem/
worthy / wɜ: ði/	/wodi/
bath /beið/	/beld/
withr /wiðə/	/wida/

Another area where there is pronunciation difficulty is in any English word that has letter ‘x’ especially in medial or final position. The English ‘x’ when pronounced, produces the voiceless velar plosive and the voiceless alveolar fricative /ks/ at a go especially when it occurs at the middle or end of an English word. Gokana on the other hand, does not have any word where /ks/ is prominent especially as a single sound. Consequently, many Gokana L1 speakers find it difficult to pronounce correctly any English words where the above sound is prominent.

This is shown below:

English	Gokana Pronunciation
Climax /klamæks/	/klaimaks/
apex /eipeks/	/eipeks/
six /siks/	/sis/
axe /æks/	/as/
reflex /ri:fleks/	/li:fles/
next /nekst/	/nest/

Recall that the alveolar fricative in the Gokana pronunciation above overshadows the velar plosive, thereby rendering the former silent.



Vowels

As we stated earlier, there are basically seven vowel sounds in Gokana. Again, Gokana does not account for diphthongs but substitute it for its closest sound(s). Consequently, many words that contain the English diphthong /əʊ/ are pronounced in Gokana as having /o/

This is shown below:

English	Gokana
loaf /ləʊf/	/lof/
home /həʊm/	/hom/
know /nəʊ/	/no/
follow /fəʊləʊ/	/folo/

Secondly, it is common for native speakers of Gokana to articulate the words that have the sound /ei/ as /e/. This is demonstrated below:

English	Gokana
cake /keik/	/kek/
eight /eit/	/et/
paid /peid/	/ped/
gate /geit/	/get/
fate /feit/	/fet/

Thirty, most English bisyllabic words that have /i/ on the second syllable are being changed to /e/ when articulated by an average Gokana native speaker.

Consider the example below:

English	Gokana
wanted /wɒntid/	/wanted/
hunted /hʌntid/	/hunted/
posted /pəʊstid/	/posted/
casket /kæskit/	/kasket/
market /ma:kit/	/maket/
tempted /temptid/	/tempted/

Going further, the central vowel /ʌ/ is not in Gokana, consequently, most Gokana native speakers when articulating words that contain the above sound, substitute it for /o/ as shown in the example below:

English	Gokana
most /mʌst/	/mɔst/
love /lʌv/	/lɔv/
couple /kʌpl/	/kɔpol/
money /mʌni/	/mɔni/
double /dʌbl/	/dɔbol/
flood /flʌd/	/flɔd/

In addition, the central vowel /ɜ:/ is not in Gokana, therefore, many Gokana native speakers articulate it as /e/. This is demonstrated below:

English	Gokana
first /fɜ:st/	/fest/



word /wɜ:d/	/wed/
bird /bɜ:d/	/bed/
learn /lɜ:n/	/len/
birth /bɜ:θ/	/bet/
girl /gɜ:l/	/gel/

pedagogical Implication

A phonological analysis of Gokana sound system has significant pedagogical implications for second language acquisition especially for Gokana speakers learning English or any other non-tonal languages. First, understanding the phonemic structure of Gokana enables educators to predict pronunciation difficulties that learners may face when learning a second language. Sounds that are not present in Gokana may be difficult for learners to perceive and articulate accurately. Secondly, learners may carry over tonal patterns from their first language into the second language, which may affect special naturalness. Teachers should therefore highlight differences between tone and intonation as well as stress and rhythm. Thirdly, findings from Gokana phonological analysis can guide the development of instructional materials that reflect learners' linguistic background. Using familiar Gokana sound patterns as reference points can help learners to better understand unfamiliar sounds in the target language.

Furthermore, clear pronunciation and accurate sound perception are essential for successful communication. Addressing phonological issues related to Gokana sound system helps learners become more intelligible and confident users of the second language.

CONCLUSION

The phonological study of Gokana enhances our understanding of the role sound systems play in second language acquisition. It highlights the importance of instructional strategies that take learners' phonological backgrounds into account, with particular attention to sounds and prosodic features that pose difficulties. Such targeted approaches can improve pronunciation, listening skills, and overall communicative effectiveness in second learning.

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