

ON THE VOWELS OF IMILIKE DIALECT OF THE IGBO LANGUAGE

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Abstract

This is a study of the vowels of Imilike dialect, a variety of Northern Igbo dialect. Its specific objectives include identifying the vowels of the dialect, determine their phonemic status, distributional pattern and phonotactic constraints and as well compare them with those displayed by the standard Igbo. Data for the study were collected using unstructured interview and observation. Data were analysed in the framework of generative phonology. Minimal pair test was conducted to identify the vowels of the dialect. The study reveals that the dialect displays eleven vowels including the open mid front unrounded vowel /ɛ/ and the central vowels, [ə] and [ɘ]. All except the central vowels are phonemic in the dialect. The central vowels are in free variation with other vowels in the dialect. All the vowels occur in word initial, word medial and word final positions except the central vowels which do not occur in word initial position. The study also attests to the strict operation of vowel harmony in the dialect as in other Northern Igbo dialects. The study concludes that Imilike dialect displays more vowels than the standard Igbo.

Keywords: Vowels, Imilike Dialect, Generative Phonology, Phonotactics.

1. Introduction

A vowel is a speech sound produced with little restriction of the airflow from the lungs out of the mouth and/or nose (Fromkin, Rodman and Hyams 2009:246). Its quality depends on the vocal tract during the passage of air. The vowels in whose production air flows freely through both the mouth and the nose are nasalized vowels. However, vowel sounds are not voiced. In other words, its production does not involve the vibration of the vocal cords. Nevertheless, they can be identified based on the following:

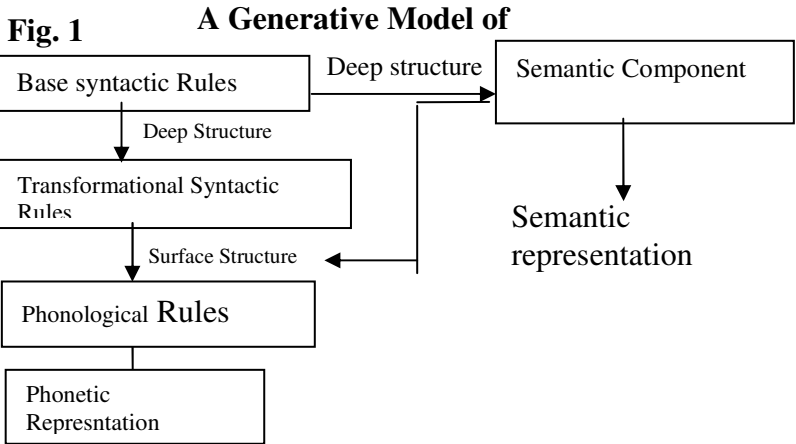
- i. The height of the tongue
- ii. The part of the tongue that is highest in the mouth and
- iii. The shape of the lips (See Hyman 1975; Katamba 1989 among others).

Earlier studies show that the Standard Igbo (SI) is made up of eight vowels (cf. Okonkwo 1974, Emenanjo 1978, Ikekeonwu, Ezikeojiaku, Ubani, and Ugoji 1999, Uba-Mgbemena 2006 among others). However, studies in other dialects of Igbo reveals that the vowel make up of some Igbo dialects varies from that of the SI. Hence, this study aims to discover if ID displays more vowels than the SI. In this light, the paper intends to identify the vowels in Imilike dialect (henceforth ID), determine their phonemic status as well their distributional pattern and constraints and in addition highlight their similarities and differences with those of SI. The study will be limited to ID. However, reference could be made to the SI or other dialects of Igbo where necessary.

Imilike dialect¹ is the name of an Igbo dialect spoken in a number of towns and villages in Enugu State. These include *Imilike Enu*, *Imilike Ani*, *Imilike Agu*, *Umundu*, *Igugu* and *Oba* all in Udeno Local Government Area of Enugu State. Nweya (2010) notes that ID is a member of the Northern Igbo Group of Dialects (NGD) as well as a member of Nsukka dialect clusters based on Nwaozuzu (2006) reclassification of Igbo dialects.

This work is done in the theory of Generative Phonology (GP). GP has its root from the theory of generative grammar. It developed during the 1960s and attained a standard form in Chomsky and Halle (1968). The major motivation for this theoretical framework was the clash between theoretical assumption and linguistic data under the theory of classical phonemics. (Oyebade 2008:9). The model assumes two levels of representation viz-the underlying representation (UR) and the surface representation (SR) which are linked together by phonological rules. In other words, a set of phonological rules apply to the underlying form of the language to yield the surface phonetic representation. Both underlying and surface forms are represented in features so the rules essentially changed feature specification. Clark, Yallop and Fletcher (2007:409) note that the model went through several modifications in 1960s and is represented thus in one of the versions as:

¹ The dialect is named after Imilike town where it is spoken.



GP framework provides formal devices that enables one properly account for the sounds of a language. It views utterances as sequences of discrete segments which are bundles of unordered features arranged in an ordered sequence. These features were used to describe the vowel sounds identified in the dialect of study.

The data for this study were collected by the researcher using an unstructured interview, participant and non-participant observation². The interviews were conducted using Ikekeonwu-swaddesh wordlists³. The wordlists include items such as parts of the body, kinship terminologies, common food items in the locality, household animals and items, animals in the environs, nature and natural phenomena, colour terminologies, emotional or social situations, numerals, plants, common verbs, common

² The data were collected among family members, neighbours, friends and visitors who are Imilike indigenes.

³ The wordlist was adapted from Onwuka (2007:131-136).

adjectives, common interrogatives, common pronouns and miscellaneous words. In addition, the linguistic knowledge of the researcher and the privilege of being a native speaker helped significantly in the collection and analysis of data.

2. The Vowels of Imilike Dialect and their Phonemic Status

The SI, according linguists, displays eight vowels which include /a/, /e/, /ɪ/, /ɪ/, /o/, /o/, /u/,/u/ (See Okonkwo 1974, Emenanjo 1978, Ikekeonwu, Ezikeojiaku, Ubani, and Ugoji, 1999, Ngoesi 2000, Ofomata 2004, Mbah and Mbah 2010, Emenanjo, E. N. et al. 2011). In contrast, The vowels of the dialect under investigation has three (3) vowels in addition to these eight totalling the vowels to eleven (11). They are as follows:

(1)	+EXP (+ATR)		-EXP (-ATR)	
	ɪ	u	ɪ	ʊ
	e	o	ɛ	ɔ
	ə	a	ə	

These vowels are usually described in auditory terms viz-the height of the tongue, the backness or frontness of the tongue and the position of the lips. The distinctive feature matrices are presented below:

Table 1

	ɪ	ɪ	e	ɛ	A	u	ʊ	o	ɔ	ə	ɘ
SYLLABIC	+	+	+	+	+	+	+	+	+	+	+
HIGH	+	+	-	-	-	+	+	-	-	-	-
LOW	-	-	-	-	+	-	-	-	-	-	-
BACK	-	-	-	-	-	+	+	-	-	-	-
ROUND	-	-	-	-	-	+	+	+	+	-	-
ATR	+	-	+	-	-	+	-	+	-	+	-
CENTRE	-	-	-	-	-	-	-	-	-	+	+

The vowels occur in the following words:

- (2) [a]⁴ áshwá /áj^wá/ 'market'
 [e] èsè /èsè/ 'barn'
 [ɛ] ègà /ègà/ 'root'
 [ɪ] íkwè /ík^wè/ 'mortar'
 [ɪ] èshí /èʃi/ 'sickness'
 [o] ózìókó /óziókó/ 'proper name'
 [ɔ] ákpɔkɔ /ákpɔkɔ/ 'pepper'
 [u] éshú /éʃ^w ú/ 'cow'
 [ʊ] ʊtara /ʊtara/ 'foofoo'
 [ə] òbòshí /òbòʃi/ 'cat'
 [ɘ] ègàrɘ /ègàrɘ/ blacksmith

In (1) above, one can observe the presence of the open-mid front unrounded vowel /ɛ/ and the central vowels, [ə] and [ɘ]. The open-mid front unrounded vowel /ɛ/ is classified under [-

⁴ The vowels have been listed in square bracket pending when their phonemic status is established .

EXP] rather than [+EXP] because it occurs mostly with the vowels from the [-EXP] set. The presence of these vowels in NGD have attracted the interest of scholars such as Ikekeonwu (1986), Nwaozuzu (2008), Ugwu (1987), Mbah and Mbah (2010) and Nweya (2010). The major issue is on the phonemic status of /ɛ/ and the pharyngealisation of the central vowels [ə] and [ə̤]. It is believed that /ɛ/ is not phonemic in SI and some Igbo dialects such as *Achalla* and *Oka* as reported by Onwuka (2007).

To establish the phonemic status of the vowels, three basic principles were adopted. These are minimal pair, analogous environment and free variation. The latter determine the allophones of a phoneme while the former two determine the distinctiveness. Following Clark, Yallop and Fletcher (2007:92), minimal pairs provide solid evidence of phonemic contrasts of the difference that matters languages. To carry out minimal pair test, an environment is created and speech sounds are placed in a given environment to other speech sounds as below:

- (3) /ɪ/ and /u/ as in /í/ 'eat'
/íú/ 'reach'
- /ɪ/ and /ʊ/ as in /tʃʊ/ 'rule'
/tʃ^wʊ/ 'wash'

/e/ and /o/ 'write'	as	in	/dé/ /dó/ 'store'	
/a/ and /ɔ/ 'worship'	as	in	/gɔ/ /gá/ 'pass'	
/ɛ/ and /a/ 'appointment'	as	in	/ɛgbà/ /agba/ 'jaw'	
/ɛ/ and /a/ 'a type of wine'	as	in	/ɛkpɔ/ /àkpɔ/	'calling'
/a/ and [ə] 'land'	as	in	/àlà/ /alə/ 'land'	
[ə] and /ɪ/ 'trumpet'	as	in	/òpè/ /òpì/ 'trumpet'	

ẹ́dà /ɛ́dà/
 'fall'
 ádà /ádà/
 'fall'

However, other instances where /ɛ/ and /a/ are in contrastive distribution in the dialect are exemplified below:

(5) /ɛ/ and /a/ as in /ɛg̃/ 'farmland'

/ágù/ 'tiger'

/ɛ/ and /a/ as in /ɛhà/ 'name'

/áhà/ 'leaving'

/ɛ/ and /a/ as in /ɛŋù/ 'pumpkin'

/ájù/ 'axe'

/ɛ/ and /a/ as in /ɛkẹ/ 'wealth'

/àkò/ 'termite'

/ɛ/ and /a/ as in /ɛdò/ 'terrestrial type
of corn'

/àdò/ 'surviving'

/ndé/

'how'

Based on the foregoing, it is evident that open-mid front unrounded vowel /ɛ/ is phonemic in the dialect. It is the pharyngealised counterpart of /e/ in Igbo and is represented as /ɛ̠/ orthographically.

The presence of the central vowels [ə] and [ɛ̠] was also revealed in the vowel system of Imilike dialect as in (3) above. Nwaozuzu (2008:188) attesting to this notes that most speech communities under NGD have at least nine or as many as ten vowels which include the schwa [ə] and the front half open spread vowel /ɛ/. However, it was observed that central vowels unlike the open-mid unrounded vowel /ɛ/ are not phonemic in the dialect. Mbah and Mbah (2010:72-4) report that the central vowel can be pharyngealised depending on the vowel of the root and also in allegiance to the operative vowel harmony, strong in the NGD. Quoting Ikekeonwu (1987), they observe that it is a weak form standing for other vowels, though the weakening takes place at the segmental tier. At the tonal tier, it assumes the peak of syllabic prominence and bears the tone. In Imilike dialect, it occurs freely with other vowels as exemplified below:

(8)	I D	SI
	[ə] àl̩ /àl̩/	àlà /àlà/
	'land'	
	[ɛ̠] ép̩àt̩ /ép̩àt̩/	áp̩t̩ /áp̩t̩/
	'mud'	

[ə]	èkádḁ /èkádḁ / 'beans'	àkíḁ /àkíḁ/
[ə]	óhà /óhà/ 'slave'	óhù /óhù/
[ə]	ígá /ígá/ 'grindstone'	ígú /ígú/
[ə]	òpà /òpà/ 'trumpet'	òpì /òpì/

They are not phonemic in the dialect because they cannot form minimal pairs with other vowels and as such cannot occupy a contrastive phonotactic position. It was observed from the data that [ə] is a reduced form of all the non-pharyngealised vowels while [ə̣] is a reduced form of all the pharyngealised vowels in accordance with vowel harmony. However, they occur more freely with /ʊ/, /ɪ/, /u/ and /ɪ/ and to a less extent [ə] or [ə̣] than it does with other vowels.

The fact that neither [ə] nor [ə̣] can form minimal pairs is based on the reason that in the environment where they appear to form minimal pair, they are variants of full standard Igbo vowels and substituting them with these vowels do not result to meaninglessness or ambiguity. Below are illustrative examples:

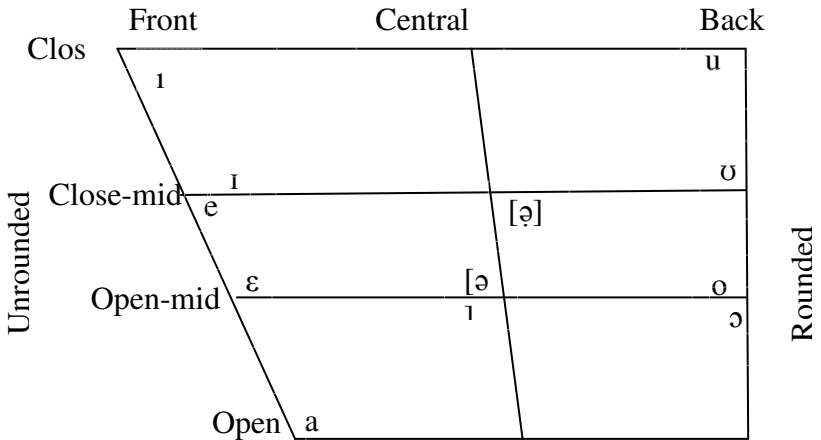
(9)	/a/ and [ə]	as	in	/àlà/ /àlḁ/	'land' 'land'
	[ə] and /ʊ/	as	in	/ńkḁ/ /ńkʊ/	'firewood' 'firewood'
	[ə] and /ɪ/	as	in	/m̀pà/ /m̀pɪ/	'horn'

/mpɪ/ 'horn'

[ə] and /l/ as in /ɛpətə/ 'mud'
 /ápɪtʃ/ 'mud'

Therefore, it could be deduced that the schwas are in free variation with other vowels since they occur in the same environment but do not bring about meaning difference. In summary, the vowels are represented using the vowel chart below. Note that the vowels in square bracket are not phonemic in the dialect

Fig. 2



The Phonetic Vowel Chart of Imilike Dialect

3. Distributional Pattern of the Vowels

Oyebade (2008:49) submits that there are predictable constraints with regard to what each language allows in the sequence of a morpheme. This constraint is expressed as sequence structure constraints and is referred to as

ọhwùṽ /ɔh ^w úṽ ‘new’	ọhṽrṽ /ɔhú.ṽ/ ‘seven’
ẹsáà /ɛsáà/ ‘white/fair’	àsáà /àsáà/ ‘dark’
ọcháā /ɔtʃáā/ ọchá /ɔtʃá/	
ọjí /ojí/ ‘dark’	ọjí /òjí/

The distributional pattern of the vowels in Imilike dialect is summarised in the table below following the foregoing analysis:

Vowels	Word-initial	Word-medial	Word-final
/ɪ/	ízù /'ízù/ week	ishî /ɪʃî/ six	ímí /ɪmí/ nose
/ɪ/	ìdà /ɪdà/ drum	àchìchì /àʃɪtʃɪ / dirt	ẹshì /ɛʃɪ/ sickness
/e/	èbòlè /èbòlè/ ram	ìnèné /ɪnèné/ vegetable	èsè /èsè/ barn
/ɛ/	ẹkwà /ɛk ^w à/ dress	úmẹ́kà /ʊmẹ́kà/ fingers	hẹ /hɛ/ they
[ə]	does not occur	òbóshí /òbóʃɪ/ cat	óbè /òbè/ heart
[ə]	does not occur	ẹg̃ər̃ /ɛg̃ɛ.ɪ/ blacksmith	átór̃ /átó.ɪ/ sheep
/a/	áféré /áfé.ɪé/ plate	àg̃bák̃p̃ /àg̃bák̃p̃/ early morning	yáá /jáá/ shake
/u/	úzù /úzu/ dust	ìrùrwè /ɪ.ɪ.ú.ɪ ^w è/ weed	ònwúnwú /òŋ ^w úŋ ^w ú/

Table 2			red
/ɔ/	ùtùtù /òtòtò/ morning	tùtùtù /tótótó/ far	ùgòhù /ògòhù/ fog
/o/	òkòkòrò /òkòkòrò/ round	òrómé /òrómé/ orange	ógòdó /ógòdó/ bed
/ɔ/	òdù /òdù/ pestle	ùgòdù /ùgòdù/ dog	ùyò /ùyò/ happiness

The table attests to the fact that all the vowels occur in the word initial, word medial and word final positions except the central vowels which occur only in word medial and word final positions.

4. Vowel Harmony (VH)

Vowel harmony is a phonological process whereby vowels occurring within a morpheme or across morpheme boundaries agrees in certain distinctive features. Clements (1977) in Chumbow 1982:66) identifies the following as the properties of VH:

- a. **Phonetic Relatedness:** A phonetic feature always serves as the basis for the categorization of the vowels of the language into a mutually exclusive set.
- b. **Root Control:** The root determines the harmonic category of affixes not vice versa.
- c. **Bidirectionality:** It affects both prefixes and suffixes.
- d. **Unboundedness:** There are no arbitrary imposed restrictions in the number of syllables affected by VH.

e. **Non Optionality:** There is no known case of root controlled harmony that operates optionally.

Studies such as Ihiunu and Kentowicz (1994) and Mbah and Mbah (2010) reveal that the feature [constricted pharynx] rather than [ATR] better reflects the intuition that [a,i,ɔ̣ u] set is marked when compared with [e,i,o,u]. In other words, VH in Igbo is based on pharyngealisation. Pharyngealisation divides the vowels into two sets. Following Ihiunu and Kentowicz (1994), Mbah and Mbah (2010), it is assumed in this study that [\pm ATR] distinction is the variation in the size of the pharynx. The size of the pharynx can be expanded (when the root of the tongue is pushed forward by a corresponding lowering of the larynx) producing [+ATR] (i.e. non pharyngealised) vowels or contracted when the tongue is pulled backwards while the larynx is raised producing [-ATR] (non pharyngealised) vowels. ID has eleven vowels-a, e, ɛ, I, l, u, ɔ̣, o, ɔ, ə, ə̣. The vowels with sub-dots are pharyngealised while those without sub-dots are non-pharyngealised. These are represented in (13) below:

(13)

	Set I (non-pharyngealised)			
	Set II (pharyngealised)			
	ɪ	u	l	ɔ̣
	eɔ	ɛ	ɔ	
	ə		a	ə̣

VH as a principle controls the distribution of vowels in ID as it does in Igbo language. Vowels of both sets do not co-occur in one and the same morpheme. The vowels have to come

from one set, either set I or set II. Simple lexemes whose origin could be traced to the dialect group strictly obey the harmony principle with few exceptions. The examples below are very illustrative. For example:

(14) Set I		Set II
/ízá/ ízá	‘tooth’	/ákọ/ ákọ
‘kernel’		
/éṣí/ éshí	‘pig’	/èṣí/ ẹshí
‘sickness’		
/òjí/ òyí	‘cold’	/òjí/ ọyí
‘good’		
/òtùnè/ òtùnè	‘buttocks’	/ótàIà/
ùtàrà	‘foofoo’	
/èbàlè/ èbàlè	‘ram’	/átọIā/
átàrā	‘sheep’	

However, vowels /a/ and /e/ do not strictly obey the harmony principle as could be exemplified below:

(15)	/áféIé/ áféré
	‘plate’
	/òmábé/ òmábé
	‘masquerade’
	/ítégónáā/ ìtégónáā
	‘nine’
	/òtánǝZéIé/ òtánǝjéré
	‘black eyeliner’

This violation of VH principle is very rare in the dialect. In respect to 6(b) (c) and (d) above, VH determines the choice of affixes in the dialect just like in the SI. For instance, the

vowel of the verbroot determines the vowel of the affix to be added in line with the vowel harmony principle as in:

(16)	i/ĩ	+	root	→	(infinitive)
	í	+	lé	→	ílē
	/ílē/		'to look'		
	ĩ	+	chwĩ	→	ĩchwĩ
	/ĩt ^w ɔ/		'to wash'		
	á	+	gbá	→	àgbá
	/àgbá/		'running'		
	á	+	tḍ	→	átḍ
	/átḍ/		'throwing'		

This is applicable to other forms of affixation in the dialect. For instance, the 'rV' suffix used to form the simple past where 'r' is constant and the 'V' is variable depending on the vowel of the root is not obtainable in the dialect. The dialect replaces the variable vowel with the pharyngealized or non-pharyngealised central vowel depending on the vowel of the root. This gives rise to such form as 'r + ə/ə̣'. This occupies the V-slot in the 'rV' past, imperative and stative markers in the dialect. This is illustrated thus:

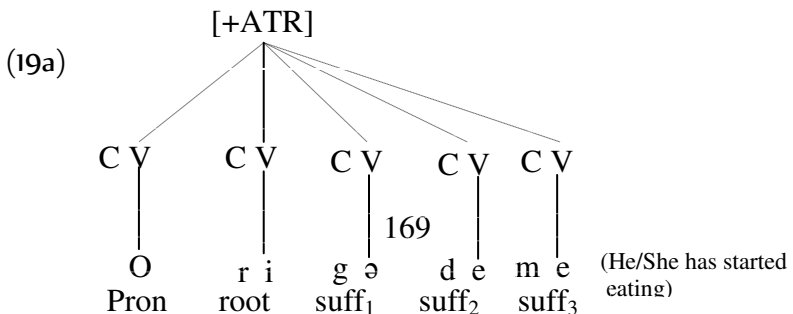
(17)	Ó jèrḍ áshwá	→	/ó dʒèrḍ áʃ ^w á/	'He went to the market'
	Ó nwè.ɪḍ éǵō	→	/ó ŋ ^w è.ɪḍ éǵō/	'He has money'
	Ọ chḍrḍ ɪlḍ	→	/ḍ tʃḍrḍ ɪlḍ/	'He wants a house'

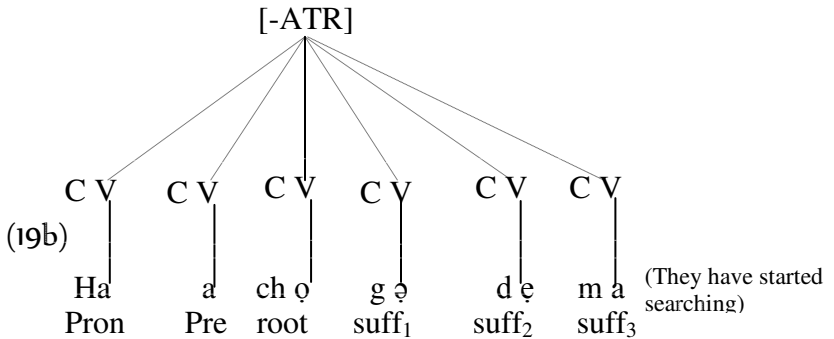
This could be further illustrated with the present inceptive progressive aspect where a sequence of suffixes *-gə, -de, -me*

or *-gə*, *-dẹ*, *-ma* are joined sequentially in harmony with the vowel of the verbroot. For instance *-gə/-gə* marks inception, *-de/-dẹ* marks progression while *-me/-ma* marks perfection respectively. The interaction of the trio results to the present inceptive progressive. The root vowel controls the choice of the affixes by agreeing with them in the feature [\pm ATR] as exemplified below:

- (18) a. Hé é-rī-gā-dē-mē n̄rī. ‘They have started eating.’
 b. Hé é-jē-gā-dē-mē égə. ‘They have started going to the farm.’
 c. Ọ chọ-gā-dẹ-mā ọrọ. ‘He/She has started searching for job.’
 d. Ọ zọ-gā-dẹ-māáshwá ‘He/She has started trading.’

In (18a & b), the verb is affixed with a prefix and three suffixes whose vowels harmonise with the vowel of the verbroot. Similarly, in (18c and d), the vowel is affixed with three suffixes but no prefix. It could also be observed that the pronouns participate in the harmony process since the feature spreads to their vowels. It is a typical demonstration of the bidirectional spreading of the harmony feature and is further illustrated in below:





The diagrams show the bidirectional spreading of the feature [+ATR] in (19a) and [-ATR] in (19b) towards the prefix and the pronouns on the left and the suffixes on the right. It validates the view of Mbah and Mbah (2010:104) that vowel harmony is strict in the Northern Igbo Dialects notably Nsukka. In other words, the violation is very minimal and mostly occurs across morpheme boundary or in compound words (See Nweya 2010 for details).

5. Summary of Findings

It has been revealed in this paper that the phonology of ID is made up of nine phonemic and eleven (11) phonetic vowels. The eight popular vowels as in the SI, the open-mid front unrounded vowel /ɛ/ and the central vowels [ə] and [ɘ]

Generally, it reveals the phonological features of the dialect with emphasis on the vowel sounds. When these are compared with what is obtainable in SI, one would observe areas of similarities and differences. The major difference being that the dialect displays more vowels than the SI. The study points to the rich phonological features of Imilike dialect in particular and NGD in general. It suggests that further research be carried out in the dialect to examine the ongoing vowel shift observed in the phonological system of ID which may be as a result of contact with other dialects and languages.

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