

A COMPARATIVE ANALYSIS OF TONE IN THE IGBO AND UKWUANI

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Abstract:

This paper compares the tones of Igbo and Ukwuani (Igboid languages) with a view to highlighting the peculiarities and differences between them. Using a descriptive approach, we drew data from competent native speaker collaborators using SIL Africa Area Word List, alongside some structured sentences. We found out that both Igbo and Ukwuani employ the use of tones for lexical and grammatical functions. While Igbo has two level distinctive tones comprising a high and low tone and a grammatical downstep, Ukwuani has three distinctive tones consisting of a high, low and falling contour. After a low tone in Igbo, a two way distinction exists; which are Low-Low and Low-High and after a high tone, there is a three way distribution: High-High, High-Low and High-Step. Whereas for Ukwuani, a three way contrast occurs after a low tone as: Low-Low, Low-High and Low-Falling. After a high tone, a two way distribution occurs: High-High and High-Falling. For tone classes of nouns, both Igbo and Ukwuani have high tone for monosyllabic nouns and five for disyllabic. In other words, while they both have the HH LH LL in common, the HL and HS are peculiar to Igbo while the HF and LF are peculiar to Ukwuani. For monosyllabic verbs, Igbo has high and low tone patterns while Ukwuani has high and rising tones. For the verbal derivatives, the simple verb stem takes a high or low tone, the infinitive and the noun derivative take a high tone prefix while the reduplicated verb stem in the gerund, has a low tone for low tone verbs and high tone for high tone verbs. Similarly, for Ukwuani, the simple verb stem takes the high or falling tone, the infinitive takes

a high tone while the verb stem is a falling tone. The noun derivative takes a low tone prefix and a falling verb stem while the reduplicated verb stem in the gerund has a high tone for high and the rising verbs. This study contributes to the field of Igboid phonology with particular interest in showing the unique features of these two related languages. The study will serve as a reference material for further studies in Ukwuani and Igbo.

Keywords: Ukwuani, Igbo, Igboid, high tone, low tone, falling contour, peculiarities.

Introduction

Ukwuani and Igbo are Igboid languages under the Benue–Congo sub–family of the Niger–Congo phylum (Williamson 1989). Like almost all Niger-Congo languages, Ukwuani and Igbo are tone languages. This implies that tone is an indicator of meaning in the same way as segmental phonemes. Tone is also very relevant in grammatical constructions.

In this paper, we present a comparative analysis of the tonal systems of Ukwuani and Igbo. We highlight the features peculiar to the languages and the point at which they diverge. We look at the types of tones, the functions and distributions, tonal classes of mono and disyllabic nouns, and verbal derivations. The study shows that though the two languages are related, yet they show major differences in their tonal systems. We present with data, that Ukwuani has a contrastive contour tone and that the contour tone is not restricted in distribution, since it can occur either after a high or low tone. This is one major difference from the Igbo tones that employ just the level tones. Contour tones are not attested in Igbo as in Ukwuani. Akinlabi and Liberman (1995) and Williamson (1976) assert this when they note that in some leveled tone languages like Igbo and Ijo, phonologically significant contour tone formation does not appear to occur. They stress that most phonologists have followed Hyman and

Schuh (1974:88) in treating tonal contour formation as tone spreading, but this is not the case in Ukwuani.

Review on Tone

Most of the world languages are tone languages and to these languages, tone is a significant part of the syllable. Tone is a feature of the lexicon described in terms of prescribed pitches for syllables or sequences of pitches for morphemes or words. Tone languages have morphemes which are realised by pitch modulation. These differences in pitch can be used to make phonemic contrast. It distinguishes word meaning and conveys grammatical distinctions (cf. Clark and Yalop 2007: 343, Katamba 1989: 186-188, Hyman 1975:212-214 and Pike 1948:3).

Pike classifies two types of tone languages as: register tone languages and contour tone languages. He draws a distinction between register and contour tone languages and notes that in a register tone language, tonal contrast consists of steady pitch heights implying that tones neither rise nor fall in their production. In a contour tone language, the pitch are not level in their production, instead, they rise and fall. Katamba, however, draws attention to the fact that some register tone languages may have a few contour tones and vice versa.

In this study, we investigate how this phenomenon of tone operates in these two related languages and show how they deviate or align with the literature.

Methodology

This work adopts a descriptive survey, drawing data from competent native speaker collaborators using the SIL Africa Area Word List alongside some structured sentences. The researchers' intuitive knowledge of the language as native speakers respectively, is also an added advantage.

Findings and Analysis of Findings

4.1 Tone in Igbo and Ukwuani

These two Igbooid languages: Igbo and Ukwuani are tone languages since pitch of the voice exerted on morphemes, words, phrases, clauses and sentences brings about meaning contrast. While the standard Igbo has two basic tones: the high tone [H] marked with an acute accent [´], and the low tone [L], marked with a grave accent [˘] and a grammatical tone: the down step [DS] marked with a macron [-]. The Ukwuani language has three contrastive tones which include: two register tones: the high tone [H] marked with an acute accent [´], the low tone [L], marked with a grave accent [˘] and a falling contour tone [F] marked with [ˆ]. Existing also in Ukwuani is an allophonic rising contour usually found in some simple verb stems.

4.1.1 Tonal Distribution in Igbo and Ukwuani

4.1.1.1 Tonal Distribution of Low Tone in Igbo and Ukwuani

The tonal distribution of the low tone in Igbo presents a two way pattern after a low tone [L]: the low- low [LL] pattern and the low-high [LH] pattern. This is illustrated below:

A. Igbo Examples

LL		LH	
1. àlà	‘land’	5. òke	‘rat’
2. àjà	‘sacrifice’	6. Àkwá	‘egg’
3. itè	‘pot’	7. idé	‘pillar’
4. àkò	‘wealth’	8. òtí	‘weevil’

For Ukwuani, we have a three way pattern: the low-low [LL], the low-high [LH] and the low-fall [LF] patterns. These are illustrated below:

B. Ukwuani Examples

LL		LH		LF	
9. ògò	‘favour’	13. èk ^w á	‘egg’	17. ifì	‘six’

10. ìfī ‘darkness’ 14. òtò ‘nail’ 18. òlò ‘shout’
 11. ògò ‘farm’ 15. èsú ‘bead’ 19. òmò ‘grinding stone’
 12. ifè ‘moon’ 16. èsò ‘body’ 20. àgbò ‘zeal’

4.1.1.2 Tonal Distribution of High Tone in Igbo and Ukwuani

Igbo language presents a three way pattern in its distribution of the high tone after a subsequent high tone: the high-high [HH], high-low [HL] and the high-step [HS] patterns. This is illustrated below:

C. Igbo Examples

HH	HL	HS
21. ányá ‘eye’	25. ákwà ‘cloth’	29. éḡō ‘money’
22. áká ‘hand’	26. ógò ‘hoe’	30. ádzā ‘sand’
23. ísì ‘head’	27. íkè ‘buttocks’	31. élū ‘up’
24. ékú ‘ladle’	28. ákpò ‘lump’	32. áḡō ‘lion’

For the tonal distribution of the high tone in Ukwuani, a two-way pattern after the high tone is obtainable: high-high [HH] and high-low [HF] as illustrated below:

D. Ukwuani Examples:

HH		HF	
33. ék ^w á ‘cry’		38. ék ^w â ‘cloth’	
34. ífī ‘head’		39. óḡâ ‘trap’	
35. òtò ‘ashes’		40. ókê ‘potion’	
36. ófè ‘soup’		41. ókâ ‘church’	
37. éḡá ‘eye’		42. únê ‘plantain’	

4.1.2 Tone Classes of Nouns and Verbs in Igbo and Ukwuani

4.1.2.1 Tone Classes of Nouns in Igbo and Ukwuani

The Igbo and Ukwuani nouns based on the number of words may be classified into: monosyllabic, disyllabic, trisyllabic and polysyllabic nouns. However, we shall be doing a comparative

analysis of the tonal structure or classes of just the mono and disyllabic nouns as they usually bear their inherent tones.

4.1.2.1 .1 Monosyllabic Nouns in Igbo andUkwuani

E. Igbo Examples

43. d̩jí 'yam'
 44. ʦí 'God'
 45. ɲwá 'child'
 46. dí 'husband'

F. Ukwuani

47. dí 'husband'
 48. ɲwá 'child'
 49. ʦí 'God'

The tone class of the monosyllabic words in Igbo and Ukwuani is just the high tone [H] tone.

4.1.2.1 .2 Disyllabic Nouns in Igbo andUkwuani

G. Igbo

- 50.HH: ímí 'nose' ókó 'fire' ókwó 'leg'
 51.HL: ógò 'hoe' ábò 'song' ígwè 'rod'
 52.HS: ad̩z̩á 'sand' ézè 'tooth' eg̩ó 'money'
 53.LH: àkè 'rat' àkwá 'egg' òsá 'squirre'

H. Ukwuani

- 55.HH: ífè 'thing' áxá 'war' ínú 'story'
 56.HF: óká 'church' úkú 'waist' ɲǰá 'soap'
 57.LF: èsá 'seven' òzè 'zinc' òmò 'grind stone'
 58.LH: òfú 'one' èsú 'bead' òwú 'thread'

- 54.LL: àkpà 'bag' itè 'pot' àkwà 'bed' 59.LL: ifè 'star' mbò 'stick' àní 'ground'

From the given examples, while the disyllabic nouns of the Igbo language have five tone classes as follows: HH HL HS LH LL, the Ukwuani disyllabic nouns also have five tone classes: HH HF LF LH. In other words, while they both have the HH LH LL in common, the HL and HS are peculiar to Igbo while the HF and LF are peculiar to Ukwuani.

4.1.2.2 Tone Classes/Patterns of Verbs and Verbal Derivatives in Igbo and Ukwuani

In Igbo just like in Ukwuani, a canonical verb stem begins with a consonant. This is in line with Emenanjo 2015:125. Just as in nouns, a verb class can emerge based on the number of syllables and

their tone patterns. We shall be looking briefly on the tone classes and patterns of Igbo and Ukwuani simple verbs and their verbal derivatives. Cognizance would be given to areas that present striking differences in the two languages under study.

I. Examples of Igbo Simple Verbs of Ukwuani Simple Verbs

J. Examples

60. High Tones (HTVs)

- i. rú ‘work’
- ii. rí ‘eat’
- iii. tá ‘chew’
- iv. zá ‘answer’

62. High Tones (HTVs)

- i. bú ‘carry’
- ii. té ‘dance’
- iii. lé ‘sell’
- iv. lá ‘drink’

61. Low Tones (LTVs)

- i. bẹ̀ ‘cut’
- ii. kpà ‘weave’
- iii. tà ‘bite’
- iv. zà ‘sweep’

63. Rising Contour Tones (RTVs)

- i. bẹ́ ‘cut’
- ii. pǐ ‘press’
- iii. dǎ ‘fall’
- iv. mǒ ‘learn’

From the given data in example ‘60 - 63’, we can say that the Igbo simple verbs take either a high tone or low tone pattern. In other words, just as identified by Emenanjo 2015:125, they can be classified as the high tone verbs (HTVs) and the low tone verbs (LTVs). For Ukwuani simple verbs, the tone pattern is a high tone and a rising contour, that is the high tone verbs (HTVs) or the rising contour (RTVs).

K. Examples of Igbo Verbal Derivatives

Verb Stem	Infinitive Noun	Gerund
High Tone (HTVs)		
64. rú ‘work’	írū òrúrí	órú ‘work’
65. rí ‘eat’	írí òrírí	írí ‘food’

66. zá ‘answer’	ízā	ázìzá
‘broom’	òzìzá	
67. tá ‘chew’	ítá	-
	òtítá	
Low Tone (LTVs)		
68. bè ‘cut’	íbè	-
	òbìbè	
69. kpà ‘weave’ íkpà		-
	òkpòkpà	
70. tà ‘bite’	ítà	-
	òtítà	
71. zà ‘sweep’	ízà	-
	òzìzà	

Analysing the given Igbo examples, for the infinitives in example ‘64–71’ the prefix i-/I- takes a high tone, while the simple verb stems remain high or become step for HTVs as in examples ‘64–67’, and low for LTVs as seen in examples ‘68–71’. For the noun derivatives in examples ‘64–66’, the prefix is also on a high tone while the simple verb stems remain high. Gerunds in examples ‘64–71’ have the prefix on a low tone while the reduplicated verb stem has a high tone pattern for the HTVs as in examples ‘64–67’ and a low tone pattern for the LTVs in examples ‘68–71’.

L. Examples of Ukwuani Verbal Derivatives

Verb Stem	Infinitive	Noun
Gerund		
High Tone (HTVs)		
72. bú ‘carry’	íbù	òbúbù
73. ló ‘work’	óló	òlóló
74. kú ‘say’	ókú	òkúkú
75. ká ‘strong’	íkà	òkíkà

Rising Tones (RTVs)

76. zǎ ‘sweep’	ízâ	ézízá ‘broom’	òzízá
77. kě ‘share’	ísâ	ókê ‘potion’	òsísá
78. dǎ ‘fall’	ídâ	édá ‘a fall’	òdídá

Looking at the Ukwuani data in examples ‘72-78’ the infinitive prefix *i-/i-* takes a high tone while the simple verb stems change from a rising to a falling tone for HTVs and RTVs. For the noun derivatives both in the HTVs and RTVs, the prefix and the verb stem are on a high tone but for example ‘76’ that has a duplicated stem. Gerunds have the prefix on a low tone while the reduplicated verb stems have a high tone pattern for the RTVs and HTVs.

4.1.3 Functions of Tones in Igbo and Ukwuani; a Comparative View

Observed in Igbo and Ukwuani are some lexical and grammatical functions of tone. This shall be illustrated from a comparative view.

4.1.3.1 Lexical Functions of Tones in Igbo and Ukwuani

Tones in Igbo as well as in Ukwuani play a lexical function by differentiating between two or more identical words in the languages respectively. Using minimal pairs and sets in these languages, lexical functions of tone are illustrated.

Table 1: Tonal Contrast in Igbo

Tone Patt	Akwa	ide	Oke	ad̩ga	eze
79.HH	cry	-	Male	-	-
80.HL	cloth	flood	boundary	-	king
81.LL	bed	-	portion	sacrifice	-
82.LH	egg	pillar	rat	-	-
83.HS	-	to write	-	sand	Tooth

Table 2: Tonal Contrast in Ukwuani

Tone Patt	ɛk^wa	ifi	ɔgɔ	oke	uku
84.HH	Cry	head	-	big	leg
85.HF	cloth	-	-	boundary	waist
86.LL	-	darkness	favour	potion	wealth
87.LH	egg	-	bottle	sharer	-
88.LF	-	six	-	-	-

While contrast is attested in the High, Low and Downstep tones of the Igbo language as in examples ‘79 -83’, contrast in minimal pairs and sets are attested in the high, low and falling tones of Ukwuani as seen in examples ‘84 – 88’.

4.1.3.2 Grammatical Functions of Tone in Igbo and Ukwuani

Similarly, tone can also contrast grammatically between identical constructions: the interrogative, declarative and negative sentences. Examples in both languages are illustrated comparatively

Table 3: Tonal Contrast in Igbo Constructions

Sentence	Gloss	DeclarativeTone
Past Form		
89.o siri	He/She cooked	H LL
90.ha gara	They went	H LL
91.i ta ra	You chewed	H LL
92.o sirinri	He/She cooked food	H LL HH
93.ha garaoro	They went to work	H LL HH
Future Form		
94.haga-esi	They will cook	H L LH
95.haga-esinri	They will cook food	H L LH HS
96.iga-ata	You will chew	H L LH
97.i ga-ata anu	You will chew meat	H L LH HS

Considering the grammatical functions of tone, the declaratives and interrogatives in the Igbo language have been illustrated and the following analysis made. The pitch variation in both sentences actually brought a meaning variation.

In the given Igbo examples ‘89–93’ the initial high tone of the pronoun in the past declarative construction changes to a low tone in the interrogative. Again, the past interrogative constructions in ‘89 – 91’ have consecutive low tones on the pronouns and the verbs. Furthermore, when the verbs are with their complements as in examples ‘92 and 93’ the tones for the declarative and the interrogative constructions are same for the verbs and the verbal complements. The verbs are low and for the complements, they are high. The difference is seen in the tone of the pronouns where the declarative constructions have the pronouns on the high tone and the interrogative has the pronouns on the low tones.

For the future tense declarative and interrogative sentences in examples '94–97', the tone marking pattern are same but for the initial pronoun where the declarative sentence has it as a high tone and the interrogative sentence has it as a low tone

Table 4: Tonal Contrast in Ukwuani Constructions

Sentence	Gloss	Declarative Tone
Past Form		
98.o leni	He/She sold	LLL
99.odzeni	He/She went	L LL
100.i tani	You chewed	L LL
101.ofini n̄i	He/She cooked food	L LL HH
102.wedzenīō	They went to work	L LL HH
Future Form		
103.we nēfi	They will cook	LLH
104.we nēfin̄i	They will cook food	L LH HF
105.jata	You will chew	L H
106.ja ta an̄o	You will chew meat	LH HF

Pitch variation in both sentence patterns in Ukwuani actually brought a meaning variation just like in Igbo.

In the given Ukwuani examples '98-100', the past form of the construction without complements in both the declarative and interrogative have the same low tone pattern. This is unlike in Igbo where grammatical contrast is attested by the presence of a high tone in the initial pronoun of the declarative sentence as seen in examples '89-91'. Furthermore, examples '101 and 102' of Ukwuani show that contrast is attested by the presence of the complements. While the verbal complements take the HH tone pattern in the declarative, in the interrogative, they take the LL tone pattern. The contrast in Igbo past declarative and interrogative with verbal complements as seen in

examples '92 and 93' is seen in the initial pronoun and not in their verbal complements.

For the future tense declarative and interrogative sentences in Ukwuani examples '103-106', the tone marking pattern of the pronoun, aux, and the verb complements are the same but for the verb stem which has the high tone pattern in the declarative and the low tone pattern in the interrogative. This is unlike Igbo, as seen in examples '94-97' where the future tone patterns are the same but for the initial pronoun which has high tone for the declarative sentence and low tone for interrogative sentence.

Examples of Igbo Negative Construction

Sentence	Negative Tone Pattern	Gloss
Past Negative Form		
107.ò síxì	L HL	He/She did not cook
108.ò táxì	L HL	He/She did not chew
109.ò síxì n̄rī	L HS SS	He/She did not cook food
110.ò táxìānō	L HS SS	He/She did not chew meat
Future Negative Form		
111.ògághēsī	L HS SS	He/She will not cook
112.ò gáxī ātā	L HS SS	He/She will not chew
113.ò gáxī ēsī n̄rī	L HS SS HS	He/She will not cook food
114.ògáxī ātā ánō	L HS SS HS	He/She will not chew meat

For the past negative form, the Igbo language has the pronoun on a low tone, the verb on the high tone and the negation marker on the low tone, as in examples '107 and 108'. However, if the sentence is with a complement, the negation marker as well as the complement bears a step tone as seen in examples '109 and 110'. For the future negative form, as in examples '111-114' the pronoun is low, the future marker is high, negation marker is step tone, the verb is step tone and

Conclusion

Having done a comparative analysis of tones in Igbo and Ukwuani languages, we can say that the two Igboid languages are tone languages with contrasting tones. While the standard Igbo has two basic tones: the high tone [H] marked with an acute accent [´], and the low tone [L], marked with a grave accent [˘] and a grammatical tone: the down step [DS] marked with a macron [-], the Ukwuani language has three contrastive tones which include: two register tones: the high tone [H] marked with an acute accent [´], the low tone [L], marked with a grave accent [˘] and a falling contour tone [F] marked with a [ˆ].

The tonal distribution of the low tone in Igbo presents a two way pattern after a low tone [L]: the low- low [LL] pattern and the low-high [LH] pattern while Ukwuani, has a three way pattern: the low-low [LL], the low-high [LH] and the low-fall [LF] patterns.

The tone classes of the monosyllabic words in Igbo and Ukwuani is just the high tone [H] tone. While the disyllabic nouns of the Igbo language have five tone classes as follows: HH HL HS LH LL, the Ukwuani disyllabic nouns also have five tone classes: HH HF LF LH. In other words, while they both have the HH LH LL in common, the HL and HS are peculiar to Igbo while the HF and LF are peculiar to Ukwuani.

Igbo simple verbs take either a high tone or low tone pattern. In other words, they can be classified as the high tone verbs (HTVs) and the low tone verbs (LTVs) while the tone patterns of Ukwuani simple verbs are: a high tone and a rising contour, that is, the high tone verbs (HTVs) or the rising contour (RTVs). In Igbo, the high and step tones mark the HTVs in the infinitive form while the high and low tones mark the LTVs at the infinitive form. For Ukwuani, the high and falling tones mark the infinitives of both the HTVs and the LTVs.

Observed in Igbo and Ukwuani are some lexical and grammatical functions. For the lexical function, while contrast is attested in the High, Low and Downstep tones of the Igbo language, contrast in minimal pairs and sets are attested in the high, low and falling tones of Ukwuani.

For the comparative analysis of the grammatical functions of tone in Igbo and Ukwuani, the tonal difference between the Igbo past declarative and interrogative constructions as seen in examples '89-93' is in the tone of the pronouns where the declarative constructions have the pronouns on the high tone and the interrogative has the pronouns on the low tones. This is unlike the Ukwuani where the difference exists in the verbal complements. Examples '101 and 102' of Ukwuani show that contrast is attested by the presence of the complements. While the verbal complements take the HH tone pattern in the declarative, in the interrogative, they take the LL tone pattern. Furthermore the difference in the future declarative and interrogative constructions of the Igbo language is seen in the initial pronoun where the declarative sentence has it as a high tone and the interrogative sentence has it as a low tone as in examples '94-97'. For the Ukwuani as in examples '103-106' the difference is as seen in the verb stem which has the high tone pattern in the declarative and the low tone pattern in the interrogative.

While the Igbo language would have the pronoun and the negative marker on the low tone for sentences without complements, sentences with complements would have the negative marker on a step tone. This differs from Ukwuani as the pronoun is usually on a high tone and the negative marker on a low tone while sentences with complements would have the complements on high and falling tones.

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