ASPECT OF TONE AND INTONATION INTERFACE IN IGBO: ACHALLA EXPERIENCE

By

Ire, Ebele Stella, Ph.D
Department of Broadcasting,
Faculty of Communication and Media Studies,
University of Port Harcourt,
Rivers State, Nigeria.

ABSTRACT

Tone and intonation are prosodic features which are both expressed in pitch. These prosodies play crucial role in the construction of meaning in languages they occur. Tone refers to the pitch level of a syllable while intonation refers to the variation in pitch over the course of a phrase or sentence. This difference ironically reveals the possibility of both being operational within the same language in some way. To this effect, studies on intonation in tone languages have become the crux of linguistic research in recent years. Intonation is considered to be a universal phenomenon though it may function differently in different languages. Therefore, this paper examines the interaction between tone and intonation in Achalla dialect of Igbo from the aspect of register raising. The objective is to determine the parts of pitch that can be set apart from tone and ascribed to intonation in the dialect. The study data was generated through covert observation of natural conversation, validated through focus group discussion and was encoded in cards for the informants to reproduce as natural as possible in varying forms. The findings reveal the existence of both local and global register raising in all the dialects. High and low tones can be raised or lowered depending on the context for intonation purposes. A low toned syllable can be perceived auditorily as high or an underlying low tone can be raised to high phonetically. Local raising is prevalent in Achalla dialect. However, global raising is noticeable in phrases and sentences that reflect the speaker's emotions such as surprise, excitements, anger among others.
Keywords: Tone, Intonation, Pitch, Register Raising, Local Raising, Global Raising

INTRODUCTION

Tone is distinctive (phonemic) in tone languages. It thus performs discrete functions in these languages. Tone as a pitch variation signals differences in words, phrases, clauses, sentences and even morphemes which phonetically and morphologically or orthographically are the same in contents, shapes and values (structure). Similar to this is Emenanjo's (2015:107) description of tone in Igbo as "…the pitch of the voice, itself a phonetic exponent of tone, itself a phonological concept, is used to differentiate the meanings of morphemes, words, phrases, clauses and sentences which otherwise are the same in terms of their segmentals (vowels, syllabic nasal and consonants)". In extant literature, a tone language is described based on the tonal structure prevalent in the language. Tonal structure can be terraced level/ register; or contour as in Mandarin Chinese. Igbo belongs to register tone languages wherein tone structure is said to be terraced level. Tone in majority of Igbo dialects is of two basic types- high (H), Low (L) and downstep which is a subset of high tone (downstepped high) with symbols [´,` and!/˩] respectively.

However, there is another tonal feature found in Igbo known as downdrift but unmarked in the language. The occurrence of downdrift in an utterance is automatic and predictable which is determined by its position. Downdrift is precisely an automatic lowering of tone inch by an inch. Hence, downdrift orchestrates the pitch of high tone being lowered by inch whenever it precedes a

non-initial low and also a low tone is reduced by inch anytime it comes after a high (Emenanjo, 2015). But the constant lowering does not make the high and low tones to become alike; their pitches are still distinct. Perhaps, it is these series of alternate high and low pitches of voice that may have led many scholars to suspect the existence of intonation in Igbo. Scholars like Welmers (1973), considers downdrift in tone languages as intonational. Newman also argued that downdrift that is found in Hausa (Igbo, Yoruba) is intonational. In Meir and Bendor-Samuel's (1975) study, intonation is found to result from updrift in Izii dialect of Igbo. Ikekeonwu (1993) from her investigations of Igbo language reanalyzes downstep as an intonational feature arising as a result of the need for focus or emphasis on particular syllables within a tonal-intonational group (TIG). Okorji (2007) in a similar investigation examines downdrift in three (3) Inland West Igbo dialects, ascribes the presence of intonation in these dialects to downdrift. Following from this, it therefore becomes imperative to find out which tonal phenomenon - downstep or downdrift or updrift (which as at now, was only established in Izii Igbo in the works of Meir and Bendor –Samuel, 1975) is intonational in the Igbo language. Or can they all be intonational in Igbo? Updrift is simply an opposite of downdrift thus instead of lowering of all tones, it raises all tones.

Intonation according to Ejele (2014: 85), is "the distinctive use of patterns of pitch melody, and is found in stress, tone and pitch-accent languages". Intonation studies as found in the extant literature are mostly based on English intonation. Variations in pitch of voice in some languages of the world, mostly the European languages signal meaning difference in utterances of maybe equal length and individual words but does not affect word identity (Roca, 1994). However, despite the fact that the pitch difference is not phonemic in these languages, yet it conveys a contrast even as the words remain the same. For instance the English word 'yes' can be pronounced as a statement – 'yes'; as a question – 'yes'?; as a cue to continue speaking – 'ye-e-s' and so on. What makes the difference among the three 'yes' variants is not really the articulation as per say but something not really concrete although it can still be measured as it involves also rate of vocal fold vibration (Roca, 1994). Intonation, which is simply the pitch melody of the utterance places *focus* on the essential item in a speech. But, the prominent syllable in any grammatical construction in intonation language such as the English language is known as *Tonic* syllable. In this language (English), it is the stressed syllable of the final foot (Davenport and Hannahs, 2010). The pattern of intonation which is referred to as intonation contour are not fixed in most intonation languages, however, the pattern that indicates statements and questions in English seems to be fixed as Rise on the final syllable in a construction indicates a question whereas Low shows a statement. In addition, intonational contours are structured into different components known as tone groups or intonation groups which are typified by the existence of a tonic syllable alongside with non-tonic syllables. In other words, the presence of tonic syllable(s) aids in determining the number of intonation group in a given utterance.

Intonation just like tone (in syllable timed languages) is important in stress-timed languages. The two phonological phenomena – tone and intonation in a way are the same as both are based on alternations in the pitch of voice and can as well be understood and measured instrumentally. However, they differ in their level of application as intonation moves beyond performing lexical and grammatical function to attitudinal (discoursal). In other words, intonation helps in establishing the attitude of a speaker in discourse.

Interestingly, tone and intonation can be seen as two faces of a coin. Previously, languages of the world were seen as mainly classified based on these two divides. Thus, as we mentioned earlier, some languages are categorized as tone languages (syllable-timed languages) and others as intonational languages (stress timed languages) in definite terms. The latter are found primarily in European languages whereas the former has been seen as features of mostly African languages. This line of division seemed to be strict in principle. But the first scholar that attempted to argue that intonation is a feature in African Languages was William Welmers in 1973. In his work *African Language Structure*, he argued that what is known as downdrift in African tone languages is an intonational feature. His

argument was scarcely investigated further by any linguist or language scholar until some years back. Now, the question is, is it really possible to find intonational features in tone languages? It may be said that previously, language scholars did not believe there are features of intonation in tone languages; even till now, there are some remnants who are still in doubt especially from Igbo extraction. Presently, some European languages which are basically intonational such as Swedish, Norwegian, Serbo-Croat, Lithuanian and so on, have been proven to attest to tone features to a certain extent (Davenport and Hannahs, 2010). Likewise some studies in African languages (as mentioned earlier) have shown that intonation is found in tone languages. All of the above evidences weaken the strict division between tone and intonation languages. Besides, linguists and language scholars recently have begun to seriously believe and research on intonation in tone languages. This is evidenced in some ongoing works being compiled in book volumes by Downing and Riallands from 2016 till date entitled *Intonation in African tone languages*. Against this backdrop, it is deemed necessary to examine intonation in the Igbo language using Achalla dialect as a base.

Achalla people and their tongue

Achalla is one of the towns in Anambra State. It is located geographically to the North side of Awka, the Anambra state capital. It is also the headquarters of the Awka-North local government, Anambra state. There are eight towns that make up the Awka-North namely – Achalla, Ebenebe, Amanuke, Urum, Awba Ofemili, Isu-Aniocha Mgbakwu and Amansea. Achalla has a common boundary with Amanuke in the East, Igbariam in the West, Awba-Ofemili in the south and Ukwulu, Isu Anioacha in the North. It has fertile flat grassland punctuated with forests. Achalla as a label refers to the people and their tongue.

Achalla people are known for farming especially rice plantation. They cultivate a species of rice known as mars and 14'14 which can compete favourably with Thailand rice in quality. People from far and nearby communities visit the town on Oye (Achalla big market) day to buy rice in large quantities either for sale or consumption. The indigenes also indulge in fishing as the town is surrounded by many rivers such as 'ezu', ali, ezugbekwu, e.t.c., though many have migrated to urban cities many years back in search of greener pastures thereby getting more involved in other businesses (general trading). Currently, Achalla youths have started engaging themselves in pursuit of education and generally, they fare well in sciences. However, it is pertinent to note that due to the daily contact made by traders with their counterparts from other parts of Igbo land, the Achalla dialect is becoming more mixed with other dialects. The influence however, is a two-way traffic as the dialects of traders from other parts coming to buy agric-produce from Achalla town are being influenced also. Aside towns that are in the same local government with Achalla, other surrounding towns such as Umuleri, Aguleri, Anam, Nando and Awkuzu speak similar dialect with Achalla. Notwithstanding this similarity, indigenes from these towns can easily detect where a speaker is coming from.

In line with Ikekeonwu's (1986) reclassification of Igbo dialect clusters, Achalla falls under Inland West Igbo. Similarly, Okorji's (1991) study supports this classification as she avers that the cluster classified as Inland West Igbo refers to dialects of the Southern part of old Anambra state in which Qka dialect belongs. Hence, we infer that Achalla dialect is subsumed under Amobia Qka dialect which according to Okorji (1991) is a sub-dialect/satellite of Main Dialect 2 – Qka inland West Igbo. However, Nwozuzu (2017) taking a cue from Ikekeonwu''s (1986) study, classifies Awka dialect under East Niger group of dialects. She rightly put Achalla (dialect) under Awka-North dialects. Nwozuzu's classification may be said to be more precise compared to the earlier attempts on classification of the Igbo dialects.

The problem

For several decades, the field of linguistics has witnessed quite a lot of studies along the lines of suprasegmental phonology such as tone and intonation, separately. Using Igbo, as an example, there exist several insightful studies into tones in the language done by foreigners as well as many Igbo linguists and language scholars. On the other hand, works on intonation are in most cases (as earlier stated) English-based. Meanwhile studies on intonation in tone languages have not enjoyed such overwhelming coverage more especially in languages of Africa. According to Downing and Riallands (2016), despite the fact that Africa languages which are tone languages, constitute one-third of the languages spoken across the globe yet they are minimally explored in the recent collection of tone and intonation typology.

Presumably, there are few studies done on intonation and tone in Igbo to the best of my knowledge. This leaves a gap as well as arouses a quest to explore this area which this present work aims to fill. It is therefore the existence of the ongoing quest on identifying intonation in African tone languages that motivated the researcher to investigate tone and intonation interface in Achalla dialect.

The purpose

The thrust of this research is to investigate the interplay of tone and intonation in Achalla, dialect of Igbo. The specific objective is to determine the parts of pitch that can be set apart from tone and ascribed to intonation in the dialect.

LITERATURE REVIEW

Formerly, languages were traditionally categorized along two 'absolute' divides, which are stress and tone languages, having the pitch accent languages at the middle either as a third type or as a part of tone languages. Emenanjo (2015) notes that syllable-timed tone languages are placed in separate realm, different from stress-timed intonational languages but recent investigations has revealed the existence of intonation in tone languages (see also Katamba 1989). The revelation justifies Abramson and Svastikuld's (1983:144) in Bolinger (1989) view, that anyone who is competent in speaking any tonal language(s) would definitely observe that the communicative use of sentence intonation seems to be as free as in non-tone languages". in respect to Chinese language, Bolinger (1989) remarks that in spite of complexities underlying the interaction between intonation and phonemic tone, it is wrong to exempt them from the assumption that intonation are the same everywhere, based on the theory that tone languages are separate and distinct from intonation languages.

Katamba (1989:239) argues that it would be wrong to categorize languages as either tonal or intonational due to the presence of intonation in all languages. He claims that the pattern of interaction with tone in tone language has received a great deal of attention from the phonologists. Similarly, Yul-Ifode (2008) opines that linguists' interest in considering the use of intonation in tonal languages is a recent development. She stresses that it is erroneous to see intonation as an exclusive feature of non-tonal languages. She further clarifies that the error emerged from problem involved in the study of the dual function of pitch in such tonal languages.

Ladefoged (1993) and Mbah and Mbah (2010) affirm that all languages use intonation, which the former explains to be the use of pitch variations to convey syntactic information. Both Ladefoged and Mbah and Mbah are of the opinion that in tone languages, the intonation patterns are superimposed on the tones. By inference, in intonational languages, discrete tone may be superimposed on intonation. This goes to justify Pearce's (2006) suggestion for a reclassification of languages, which he claims is necessary as even within the tone languages, there are differences noticeable in the pattern in which metrical system and other prosodic phenomena, including tones overlap. Pearce's suggestion calls to

mind the need for fine-tuning the categorization of world languages along the prosodic lines since a language may have one feature in lesser degree compared to another existing within the same language. For instance, a tone language is said to have intonation feature to a certain degree. Welmers' (1973) involvement of intonation in interpreting the characteristics of tones in Hausa, a tone language, buttresses the fact that intonation is present in tonal languages. In the same vein, Davenport and Hannahs (2010) report that European languages like Swedish (a pitch-accent language) are tonal to a certain degree.

Reiterating Ladefoged's (1993) view, Yul-Ifode (2008:81) while drawing insights from Isoko, asserts that in a tonal language, the overall pitch contour of a sentence is superimposed on the "individual tones". She notes that in such a situation, tones may change to mark intonation. She observes that in Isoko a low tone can be raised to mid or lowered giving a downglide depending on the sentence type.

With regards to languages like Igbo, Katamba (1989), asserts that one common intonation effect found in many register tone languages is embedded in several related phenomena such as downdrift, downstep and upstep alongside updrift (upshift) (Meier and Bendor-Samuel 1975). Katamba postulates that downdrift, which is an automatic, non-phonemic lowering of Hs and Ls in a phonological phrase (utterance), creates a falling intonation in the utterance. He notes that downdrift is only found within a phonological phrase. Downstep, according to Katamba is similar to downdrift with regards to intonation, in that it also causes the pitch of the utterance to go down. Upstep, he explains, creates a rising intonation over part of the utterance. He further explains that as sentences are marked with a specific intonation contour, declarative sentences are associated with falling intonation (resulting from downdrift) while interrogative sentences have rising intonation (reflecting a total undoing of the effect of downdrift). Citing examples from Hombert (1974), Katamba observes that downdrift is cancelled in interrogative sentences in Hausa. He asserts that in the Hausa language, the last high tone in a question is upstepped and acquires an extra-high pitch with a sharp fall.

Efere (1994) observes the existence and operation of intonation in Bụmọ, a dialect of Ịzọn. The intonation effects are found in downstep, register raising in question, commands and emphasis. He reports that in Bụmọ, the Hs of non-initial phrase with an unlinked floating L indicate the presence of downstep. In his illustration of downstep with two different sentences – i-bírí bó-míní "(A) storm is coming" and i-gína gboro –wei búrú fe '(A) pepper -planter bought yam", he observes the occurrence of downstep in both, stating that the second phrase in each case has an 'L' register that is lower on the hierarchy scale than the 'L', which dominates the first phrase. He further notes that in an adverbial phrase (accent phrase) in Bụmọ comprising four (4) phrases; each non-initial phrase is lower in pitch than the preceding one by virtue of it being dominated on a higher level by an 'L'.

Furthermore, Efere (1994) reports the existence of raising of pitch of the voice (register raising) for intonational purposes in Bụmọ. According to him, register raising may be global or local as it involves a whole phrase or sentence or a unit syllable. He observes a global raising in question counter-part of one of the examples cited above as thus: bĭrĭ ịbǒ-mĭnĭ-ì "is (there a) storm coming?" In this case, as he explains, the global raising runs through the sentence. Note that he uses a raised pitch with the symbol (˝) and the final V, which bears a low tone in the surface level marks question intonation. He adds that commands in Bụmọ have the same intonation pattern as question. But the difference between the question and the command lies in the fact that the breath-force used in producing the latter is higher. He further reports the presence of local raising of voice quality in emphatic statements. Here, the final V insertion which usually carries the same tone as that of the preceding vowel receives an extra high tone (which reflects the raising). He clarifies that in a syllable with H, the H is raised to extra high but in the case of a non-high pitch syllable, a high pitch is inserted. He considers Clements (1983) treatment of upstep to be similar to the extra high insertion in emphatic utterance. Clements (1983) also refers to upstep as a register raising.

Similarly, Emenanjo (2015) avers that an impressionistic overview of downdrift in Igbo shows the presence and the operation of intonation in the language. To establish this, Emenanjo cites Meier and Bendor –Samuel's (1975:34) observation emanating from their instrumental study of downdrift, updrift and upstep in Izii thus:

> There is a gradual lowering of the pitch levels in span (i.e. a phonological stretch of utterance) as a result of the effect of downstep and downdrift and though this lowering is much reduced by upstep and updrift, high and low tones at the end of tone spans are lower in pitch than at the beginning of each tone span. Thus, a high tone initial in a tone span is usually on a higher pitch than a final high on the preceding tone span.

Emenanjo (2015) considers Meier and Bendor-Samuel's discussions of these tonal phenomena in Izii as all pointing to intonation and its uses. He observes that each of the six distinct registers marked in Izii as found in Meier and Bendor-Samuel's study has its own phonological contours, tone unit or tune group. The six registers marked by intonation in Izii includes – conversation, deliberate (public announcement by town criers), formal, grievance, quarrel and poetic (Emenanjo 2015:132). He notes that those observed registers in Izii reflect certain functions of intonation. In essence, Meier and Bendor-Samuel's (1975) study reveals the existence of intonation in tone languages.

The instrumental studies carried out by Ikekeonwu (1993) and Okorji (2007) on "downstep and downdrift", re-categorize both phenomena as intonational features in Igbo. In Davenpart and Hannahs' (2010) view, the two phonological phenomena, tone and intonation, are somehow related as both make use of pitch. The difference according to Davenport and Hannahs lies on the size of the units which they apply. Tone affects syllables and words whereas intonation affects longer stretches of utterance like phrases and sentences. Another distinction between the two phenomena is imbedded in their functions in language. Tone performs lexical function by distinguishing words with similar phonological shapes except in tone mark. In tone languages such as Igbo, tone also performs grammatical function by differentiating statements from questions, ordinal phrases from cardinals and so on. On the other hand, intonation performs a variety of functions such as grammatical, discoursal, focusing and most importantly, altitudinal.

Davenport and Hannahs (2010) write that an estimation of 50% of world languages are said to employ tone to a certain degree. In their opinion, the figure may even be as high as 70 percent. Implicatively, there are possibilities of tone being found in intonational languages and intonation in tone languages. Besides, many writers have alluded to the fact that intonation is universal, so it is present in all languages. Emenanjo (2015) views the relationship between tone and intonation to have gone beyond mere interface to become typological reality or even universal. Thus, in line with other previous works on tone and intonation in African languages and in Igbo in particular, this paper is an investigation into the existence of tone and intonation interplay in Achalla dialect from the angle of register raising.

METHODOLOGY

The research design adopted in this research is descriptive survey. This method offers the opportunity of using survey to gather data about intonation with the aim of describing the intonational features and patterns exactly as observed in the dialect under study. The data were gathered through card reading and covert participant observation. The population comprises of four literate native speakers (two males and two females) who are fluent in the dialect. These set of people were from different age brackets in order to avoid age and gender influences. Digital audio recorder, notebooks, and pen were instruments of data collection.

First and foremost, the data were generated from Achalla dialect through covert participant observation, Due to some anomalies found in the data collected such as code switching and code mixing in the utterances; it was later tested and corrected through focus group interview with elderly

people to ensure validity and reliability. These set of people though illiterates are fluent in the original dialect. From this, a representative sample of all the simple phrases and sentences presumed to be containing intonational features was encoded on white cardboards which were numbered. The cardboards were given to the respondents, at the interval of one (cardboard) at a time. Each card contains some phrases and sentences with four or less minimal pairs (for each construction) to see if they can produce varying intonational structures. The readings were recorded for analysis.

The analysis was done perceptually. The data collected with the use of recorder were played and replayed, from which the researcher wrote out the texts read with their pitch patterns as perceived by the ear (perceptual). This was used in determining the part of pitch which is set apart from tone and ascribed to intonation in each of the dialect under study. In addition, the researcher's introspection as a native speaker as well as a linguist helped in confirmation of the pitch patterns (tune) in the card reading during the analysis.

DATA PRESENTATION AND DISCUSSION

The section examines the intonational features in different sentence types (statements, questions and command) from the angle of register raising by revealing the parts of pitch that is set apart from tone and ascribed to intonation therefrom establishing the intonational patterns as well as their roles in the dialect under study.

In the analysis, intonation and tone markings on the utterances used are separated to avoid fuzziness and complexity. Intonation is marked on transcribed utterances while tone is marked on the untranscribed corpus. Note that all tones are marked in other to show clearly the interplay of the two prosodic features under study. Downstep tone is marked orthographically with a raised macron (ˉ).

Statements (Achalla Dialect)

1. ànyị́ èjéwó ìzù. (We are going to the meeting)

i). /aɲǐ ɛ́ʤɛ̋ɛ̋wo ızu ↘ // (progressive)

we are going to (for) the meeting

ii). /aɲı ɛ́ʤɛ̋wo ızu ↘ // (concluded)

we have gone to the meeting and returned

2. é nwèm̀ jí, àkị̀dị̀. ákpụ́, yọ́ọ̀yọ́ọ̀ – I have yam, black beans, cassava, pigeon beans

i). /ɛ̋ ŋʷɛ̋m ʤı / akǐdı/ akpʊ̋ / jɔ̋ɔ̋jɔɔ ↘ / (incomplete)

I have yam, black beans, cassava, pigeon beans …

ii). /ɛ̋ ŋʷɛ̋m ʤı/ akǐdı/akpʊ/ na jɔɔjɔɔ ↘ // (complete)

I have yam, black beans, cassava, pigeon beans.

3. í lúó áyā, ì góté ōnūgbù, m'ọ̀ bụ̀ ègwúsí m'ọ̀ bụ̀ ọ̀rá – (when) you reach the market, you buy bitterleaf or melon or rosewwod leaf.

i). /"ı lʊ̋ʊ̋ aȷ̋a/ ı g̋ote onugbu/ mɔbu egʷusǐ/ mɔbu ɔrǎ ↗ / (incomplete)

(when) you reach the market, you buy bitterleaf or melon or rosewwod leaf…

ii). / ı luo aja/ ı goté őnugbu/ mɔbu egʷusı/ mɔbu ɔra↘// (complete)

(when) you reach the market, you buy bitterleaf or melon or rosewwod leaf.

4. ọ́ náwọ́. – He has gone'

i). / ɔ̋ nawɔ→/ (declarative statement)

He has gone (he has left)

ii). /ɔ̋ nǎwɔ̋ɔ̋→/ (statement with grief/sorrow)

He has gone + vowel lengthening (he is dead)

5. ùjú ànátáwọ́ – Uju has come back (returned)

i). /udʒű anatawɔ→/ (declarative statement)

   Uju (personal name) has come back /returned

ii). /udʒű ɓ́nɓ́tawɔ̋ɔ̋→/ (statement with excitement or sorrow)

   Uju (personal name) has come back /returned

6. òbí nà àchú àjà(ò) – Obi is doing sacrifice

i). /ő̋bı̋ na aʧʊ adʒa↘// (casual statement)

   Obi is doing sacrifice

ii). /obı nǎ-ɓ́ʧʊ ɓ́dʒao↘// (surprise)

    Obi is doing sacrifice +ext. sufix

7. ọ̀gọ̀dụ̀à àmáká(ó). – This cloth is beautiful.

i). /ɔgɔdő̋ɓ́ amaka↘/ (casual statement)

This cloth is beautiful

ii). /ɔgɔ̋dő̋ɓ́ ɓ́mɓ́kɓ́ő→/ (excitement)

This cloth is beautiful + ext. suffix

There are some pieces of evidence from the dialect under study that show the presence of intonation in the Igbo language. In this section, the intonation effects on tone are marked through the raising or lowering of a pitch level. This process is known as register raising. ((˝) represents raised

pitch; (↘) falling tune, (↗) rising tune & (→) level tune; (/) & (//) indicate intonational phrase (IP) boundaries). Note: each IP has a completed tune.

In each group of statements above, the tonal patterns of the syntactic constructions are the same but the part of the pitch being raised to mark intonation may differ at some points. The pitch(es) raised in each utterance helps in determining their tunes and meanings. From the data, register raising affects both high and low pitch levels as their perception changes. The intonation is superimposed on tones as the tonemes change phonetically to mark intonation. This is in consonance with Yul-Ifode's (2008) view that the overall pitch contour of the sentence is superimposed on the individual tones in a tonal language. The local raising is observed in almost all the phrases except in examples 2(i), 4(ii), 5 (ii) and 7(ii) where global raising is noted. The high tone of the ending syllable in 3(ii) is lowered, giving a low pitch, auditorily. Moreover, it is observed from the examples above that the pitch contour of statement in the dialect is neutral as it can end in high (rising) or low (falling) or even steady (level) depending on the pitch level of the ending syllable. Another observable fact about statements intonation in this dialect is the occurrence of final low toned V-insertion at the boundaries of the syntactic units which in some cases are affected by the tone of the preceding vowel, if the vowel is high. Therefore, in a situation where the preceding vowel is high pitched, the inserted vowel receives high pitch or is raised. But in question (as we shall see later), the low-toned V-insertion triggers the raising of low tone of the root vowel to high, automatically creating a high-low pitch contour (HL). Vowel lengthening is observed in example 1(i). In this case, the high tone of the vowel is slightly lowered giving a mid level pitch. Thus, a tone can be raised or lowered to mark intonation and this affects both high and low tones. Furthermore, the nuclear tune of the vowel lengthening or the attendant final vowel insertion as the case maybe, affects the interpretation of the whole intonational phrase (IP). Nuclear tune is an identifiable pitch movement that begins on the syllable called the nucleus which will be completed in that syllable otherwise in the syllable following the nucleus (Asby[2] 2008:37). The nucleus is the carrier of the new information which the speaker wants his listener to hear and understand.

Questions (Achalla dialect)

Questions in this dialect can end in either low or high pitch which also depends on the pitch pattern of the final phrasal constituents. In Achalla, both local and global raising are observed in their question formation. Consider the following:

8. ị shị gịnị̄ (éé)? – what did you say?

i). /ɪ ʃɪ gɪ́nɪ́ ↗ //   (simple question)

what did you say?

ii). ɪ̋ ʃɪ̋ɪ̋ ↗ /   (question with anger)

    what (did you say)?

iii). /ɪ ʃɪ gɪ́nɪ́ee ↘ //   (question with sorrow)

    what did you say +ext.suffix?

9. nwáà ò tò (tóò) ógódógó? – Is this child (person) tall?

i). /ŋʷa a /o to ogő dő gő ↗ // (simple question)

    child (person) this +resumptive pr. +vbr + tall

   Is this child (person) tall?

ii). /ŋʷá̋ a̋/ o tő ő ogodogo ↘ // (Question with doubt /uncertainty)

   child (person) this +resumptive pr. +vbr + ext. suffice + tall

   Is this child really (person) tall?

10. èméké ò gbùlù (gbùlúù) ọ̀kụ́kụ̀? – Did Emeke kill a fowl ?

   i). /ɛmɛkɛ ő gbűlű ő̋őkʊ ↘// (simple question)

    Emeke resumptive pr. +killPST fowl

    Did Emeke kill a fowl?

ii). /ɛmɛkɛ ő gbűlűű ő̋ɔkʊ →// (question showing doubt)

   Emeke resumptive pr. killPST +ext. suffix fowl

   Did Emeke kill a fowl?

11. ọ̀gọ̀dụ̀à àmáká? – Is the cloth beautiful?

i). /ɔgő dő̋ a̋ amaká̋ ↗ / (question for confirmation or clarity)

   cloth + demostrative pr. beautiful?

   (Is) the cloth beautiful?

ii). /ɔgɔdő̋ a̋/ ɔmáká̋ ↗ / (sarcastic)

   cloth+ demostrative pr. beautiful?

   (Is) the cloth beautiful?

iii). /í ʃǐ n'ő̋gɔdő̋ a̋ amaka ↘ / (question with doubt)

   you said conj. cloth demostrative.pr. +beautiful?

   Are you saying that the cloth is beautiful?

12. òbí ọ̀ nà àchú àjà? – Is Obi doing sacrifice?

   i). / obɪ/ ő na-aʧʊ a̋ʤa ↘ // (simple question)

    Obi resumptive pr. aux+ [pref]vbr (doing) sacrifice

    Is Obi doing sacrifice?

ii). /í ʃí nǎ őbí ná-aʧő aʤǎ ↗ // (question with doubt)

you say conj. Obi aux. [pref]vbr (doing) sacrifice

  Are you saying that Obi is doing sacrifice?

13. ɔ́vē ɔ̀ tɔ̀ (àtɔ́à) ừtɔ́? –Is the soup delicious?

i). /ɔ̌vɛ̌/ ɔ tɔ ʊtɔ→// (simple question)

soup it vbr. delicious?

is the soup delicious?

ii). /ɔ̌vɛ̌ ắtɔ̆á ʊtɔ̆→// (question with uncertainty)

soup it vbr. + ext. suffix delicious?

is the soup delicious?

14. ò lìlì (lìlíà) jí? – Did he eat yam?

i). /o lɪlɪ ʤí ↗ // (simple question)

   he eatPST yam

  did he eat yam?

ii). /ő lɪlɪ̆á ʤí ↗ // (question with doubt)

    he eatPST+ext.suffix yam

  did he eat yam?

iii). /ő lɪ̆á ʤí ↗ // (question with doubt)

  he eatPST+ext.suffix yam

  did he eat yam?

iv). /ő lɪ̆í ʤí ↗ // (question with doubt)

    he eatPST+ext.suffix yam

  did he eat yam?

        Generally, the Igbo language has a low-tone marked on pronominal vowels (ò/ɔ̀) which serve as question indicators in certain sentences. In interrogative sentences where the subjects (proper nouns) are present, these question indicators are referred to as resumptive pronouns as they refer back to the subject, as shown in examples 9, 10, 12 and 13. In examples 8(ii), 9(ii), 10(ii), 13(ii) and 14(ii), (iii) & (iv),a low-toned vowel is inserted to the verb root in an intonational phrase, which in some cases looks like vowel-lengthening. This is predominantly found in question forms that reflect doubt. Unlike in the

statement forms (in examples 4(ii), 5(ii), 6 (ii) & 7(ii)), the inserted low-toned vowel converts the low tone of the preceding vowel (where it is affixed) to a high (while remaining unaffected) giving a kind of high-low (HL) gliding tune that automatically adds another meaning to the sentence as seen in examples 9(ii), 10(ii), 13(ii), and 14(ii, iii & iv). In such situations, the verb root or even the verb inflectional suffix (on which the low pitch vowel is attached) is automatically assigned the nucleus as it becomes the custodian of the new information. In questions just like in statements, a low tone can be raised to high or even lowered. In the same way, a high tone can be raised to become higher or lowered but the pitch level may not be as low as natural low tone. Also, a downstepped tone can be raised to high or lowered too depending on the sentence and its meaning. Interestingly, such occurrences portray a superimposition of the overall pitch contours of the phrase or sentence on the individual tones. The tones thus changes to mark intonation. However, in some situations, it is difficult to separate intonation from tone. Interrogative questions in the dialect attest to both global and local raising.

Note that the pitch raising or lowering on the end syllable of the utterance determines the nuclear tone of the interrogative sentence grammatically, which may be falling, rising or level tunes. Another intonation marker observed in the interrogative sentences in Achalla dialect is the low-toned phrase [ì ʃìì] which also serves syntactically as a question marker. Once this phrase is introduced at the beginning of a statement, it does not only change it to a question but the pitch of the whole utterance is also affected. In such sentences, the tune of the question automatically portrays a quest for a confirmation or reconfirmation of what one is skeptical about.

Commands (Achalla dialect)

Commands like other grammatical constructions in the dialect attest to register raising. The pitch contour of commands in Achalla may be high, steady or low notwithstanding the tone of the ending syllable. Let's consider the following examples:

15. zàá ụ́nọ̀! - sweep the house (floor)!

i). /zɑ́a őnɔ// ↘ (polite command)

   sweep (vbr+suffix 'a') house (floor)

ii). /zɑ́ɑ́ őnɔ ↘// (command with anger/irritation)

    sweep (vbr+suffix 'a') house (floor)

16. pụ̀ọ́ nọ́ọ̄nīnī! - get out of this place!

i). /pʊɔ̌ nɔ̌ɔ̌nɪnɪ→// (polite command)

  go (vbr+ suffix 'ọ') place + vl. ext. suffix (with emphasis)

  get out of this place

ii) /pőɔ̌ nɔ̌ɔ̌ ↗ // (command with anger/irritation)

  go (vbr+suffix 'ọ') place +vl

  get out of here

17. wébè íyéè - take it inside!

i) /wɛ́bɛ ɩȷ̌ěe ↘// (polite command)

  take+inside it+vl

  take it inside

ii). /wɛ́bɛ̌ íȷ̌éé ↘// (command with anger)

  take +inside it+vl

  take it inside

      Imperatives in Achalla dialect involve vowel lengthening if the sentence ends high but none if it is ends in a low pitch. Also, there is a superimposition of HS contour (see (16)(ii)) or HL contour (see (17)(i &ii)), if the sentence ends high. This is also attested in Bụmọ dialect as noted in Efere (1994). There is a global raising of pitch of the voice in commands. However, when commands express anger or irritation there is an increase in the pitch range. The pitch patterns of polite command and command in anger are the same with the exception of example (56), which may be as result of the suffix bearing downstep tones. The difference between polite command and its counterpart lies in what Ashby (2008) labelled the key. Key refers to variation of top pitch height of a speaker to convey extra meaning. The intonation pattern is identical and only the range of movement is affected. During the speech production, the informants intentionally alter the height of their top pitch to express their feelings thereby adding extra meaning to the utterance. He can either increase or reduces his pitch range. But for some speakers the initial syllable starts low while the end syllable is high or very high while for some speakers, the initial syllable may start high and ends in low. Thus, the pattern is dependent on the speaker's personality. In the examples above, the informants show anger by varying the key to high or highest. Polite commands were uttered with neutral key while their counterparts were produced with a very high pitch, using high key.

CONCLUSION

      The Igbo language in general has two basic contrastive tones – high (´) and low (`) which form the base for rising and falling tunes in the language except in cases of lowering or raising of pitch. The language also has the tonal feature, downstep (¯) as well as the process of downdrift which some authors such as Ladefoged (1993), Ikekeonwu (1993), Okorji (2007), Davenport and Hannahs (2010), among others have claimed to be intonational. In any sequence of high and low tones, downdrift is observed as the second high is lower than the first high; likewise the first low is higher than the second. This tonal feature (downdrift) is also observed in series of Hs or Ls. However, in a situation where level tune is used in speech, the pitch of the voice is steady and sustained therefore the process of downdrift is cancelled as observed in the study.   The parts of pitch which can be set aside from tone and ascribed to intonation were determined through the lens of register raising. This is in line with Cruttenden's (1986) submission which explains raising as one of the different ways in which tone languages use intonation. Register raising refers to the "raising of the pitch of the voice for intonational purposes" (Efere 1994:153). It can be global or local. It is global when it affects the whole utterance and local when one or few syllables are raised.

      In Achalla dialect, both high and low tones as well as downstep can be raised or lowered to mark intonation in all the sentence types depending on the context or attitudinal associations. Downstep is not a predominant tonal feature in Achalla dialect. There is more incidence of local raising in the dialect compared to global raising. Global raising in statements, questions and imperative

usually has attitudinal connotations. Register raising sometimes causes extratonality in tones in the dialect to the extent that pitch value of a low tone may be higher than a high tone within the same utterance, in some cases.

Register raising is examined in statements, questions and commands in this paper. As observed in the data presented above, the intonation effects on the tone are marked through the raising of high or low pitch level (tone). In the phrasal constructions in Achalla dialect, it is the raising of the pitch (tone) on the last syllables that determines the intonational contour (tune) of the phrase or sentence. In other words, a raised low or high tone on the end syllable causes the utterance to either end in a rising tune or level tune. Note that an already high pitch (tone) when raised receives extratonality but a raised low pitch in most cases is lower than a high tone but higher than a low tone. This is in consonance with Efere's (1994) assertion that if the syllable that receives the raising is not high pitched then a high pitch would be inserted but in the case the syllable is already high pitched, the pitch becomes higher. However, in imperatives, the raising of pitch of the last syllable in these dialects does not necessarily translate to rising or level pitch. Rather, it is the tone (not raising) on the end syllable that determines the intonational pattern of the utterance. Therefore, in imperatives, the intonational feature, 'key' plays a role. Key reflects an increase (high key) or decrease (low key as the case maybe) in the height of a speaker's pitch range while the intonation contours remain the same. Thus, the tune pattern of an imperative with the raised pitch on the last syllable is still the same with its counterpart. Note that the choice of key also affects the interpretation of an utterance. It is pertinent to note that the utterances in each pair considered under the data analysis are similar both in segments and tones in each example. Both low and high tones correlate to low and high pitches respectively.

Note: raised pitch is indicated with double acute accents ("). The arrows represent how the sentence ends in lieu of the three simple basic tunes – rising ($\nearrow$), falling ($\searrow$) and level ($\rightarrow$). The arrows reflect the tune pattern of the whole utterance (how the sentence ends), an aspect of the grammatical function of intonation. Lastly, both single (/) and double slant lines (//) indicate intonational phrase boundaries. Single slant line represent an incomplete sentence (a phrase or a dependent clause) while double slant lines signifies a complete sentence. In addition, abbreviations such as 'v = verb, vbr= verb root, PST = past, vl = vowel lengthening, ext,= extensional, aux. = auxiliary verb, pref. = prefix, pr. = Pronoun.

RECOMMENDATIONS

This paper recommends further investigation of intonation in other dialects if Igbo. By so doing, more insightful contributions would be made towards the study of intonation in African tone languages.

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