TONE: A DETERMINER OF MEANING IN HAUSA

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Abstract

This paper examines tone as one of the phonological aspect that determines the meaning of lexeme(s) in Hausa language, for an effective and mutual communication. Languages are classified as either tonal or stress-timed languages. Hausa, like many African languages is a tonal language, therefore, tone plays a significant role in Hausa phonology and semantic aspect. Tone in Hausa determines the pronunciation pattern of a given word or an expression as well as the meaning. e.g. Káráá (sound) Kàrà (increase). The tone varies the meaning of these words. The research was conducted by extracting some Hausa lexemes that have same orthographic representation with distinct pronunciation and trace the meaning of the identified lexemes. This paper consists of two parts: The first part is the general introduction which discusses Hausa language and the people from the views of different scholars. The second part discuses and exemplified the used of tone in determining the meaning of word(s). The general observation is that, tone is a very important aspect of Hausa language, because it is used in making variation in the pronunciation and also the meaning of a word or an expression.

Keywords: Tone, analysis, research, data

1.0 Introduction

Tone is the use of pitch in language to distinguish lexical or grammatical meaning that is, to distinguish or to inflect words. in other words, tone, is a variation in the pitch of the voice while speaking or pronouncing a word. (Neuman ,P. 1977) The word tone is usually applied to those languages (called tone languages) Many languages use pitch to express emotional and other paralinguistic information and to convey emphasis, contrast, and other such features in what is called intonation, but not all languages use tones to distinguish words or their inflections, analogously to consonants and vowels. Languages that do have this feature are called **tonal languages**; the distinctive tone patterns of such a language are sometimes called **tonemes**, by analogy with *phoneme*. According to encyclopedia Britannica (2001) tonal languages are common in east and Southeast Asia, the pacific, Africa, and the Americas; as many as seventy percent of world languages may be tonal Languages.Tones are realized as pitch only in a relative sense. "High tone" and "low tone" are only meaningful relative to the speaker's vocal range and in comparing one syllable to the next, rather than as a contrast of absolute pitch such as one finds in music. As a result, when one combines tone with sentence prosody, the absolute pitch of a high tone at the end of a prosodic unit may be lower than that of a low tone at the beginning of the unit, because of the universal tendency (in both tonal and non-tonal languages) for pitch to decrease with time in a process called downdraft.

Goldsmith (1990) states that, tones may affect each other just as consonants and vowels do, in many register-tone languages, low tones may cause a down step in following high or mid tones; the effect is such that even when the low tones remain at the lower end of the speaker's vocal range (which is itself descending due to downdrift), the high tones drop incrementally until finally the tones merge and the system has to be reset. This effect is called tone terracing. In African linguistics (as well as in many African orthographies), a set of diacritics is usual to mark tone. The most common are a subset of the International Phonetic Alphabet:

High tone	acute	á
Mid tone	macron	ā
Low tone	grave	à

Minor variations are common. In many three-tone languages, it is usual to mark high and low tone as indicated above but to omit marking of the mid tone: *má* (high), *ma* (mid), *mà* (low). Similarly, in two-tone languages, only one tone may be marked explicitly, usually the less common or more 'marked' tone.

1.1 Statement of the problem

Tone as an aspect of phonology and semantics have been projected and analyzed by different schools of thought from different perspectives. Many works have been conducted on Hausa tone; Ibrahim (2009), Batrobas (2023). Hadi (2017), and many others conducted a research on tonal variation. But to the best of our knowledge, Autosegmental tone tier approach have not received adequate attention. Therefore, this research intends to bridge this gap by using Autosegmental tone tier to analyze some Hausa lexemes with tonal variation that determines the meaning.

1.2 Aim and objectives

The aim of this paper is focusing a study on Hausa language vocabulary with the aim of identifying words that are orthographically the same but distinct in pronunciation and meaning, the difference in the pronunciation that is technically referred to as "tone" which in turn determines the meaning of word is the focal point of this paper. The objectives of the paper are:

i. To identify the words with same orthographic spelling
ii. To indicate and identify the syllables with high, mid and low tones
iii. To provide glosses for the extracted words
iv. To provide examples in sentences to justify the tonal differences

2.1 Empirical review on African languages

Ijeoma, A. (2011) conducted a research on tonal inflection of the Igbo language. She stated that, the Igbo is one of the major ethnic groups in Nigeria, dominate the once forest zone of south eastern Nigeria and the fringes of the Niger delta

west of the river. Igbo people are basically, farmers, traders and craft men, their religion is animism. Their social life flows with the rhythm of festivals, ceremonies, rituals and work. Several types of music dominate Igbo life: Social music used for entertainment, didactic tales, narration of topical events, transmissions of clan, chronologies, social control; and work music which include lullabies, canoe songs etc. Ijeoma, A. (2011) further asserted that, tonal inflection refers to the rising and falling tones of a language. Inflection has been defined by Hornby (2000:610) as "making the voice higher or lower in pitch." The Igbo ethnic group of Nigeria speak Igbo language. A characteristic feature of the Igbo language like other African languages is adhering strictly to the tonal inflection of the words. The outcome of the research revealed that, Writing on language and tonal inflection, a word could have many meanings depending on its intonation, application and, of course, its function in a sentence. For example the word *akwa* means "bed" or "bridge". Here again the intended meaning depends on the application of the word, and its context in a phrase, or statement. Writing on the tonal inflection of Igbo language, Ijeoma stated: "Among the Igbo of Nigeria the word *akwa* has different meanings depending on the tone markings of each syllable of the word, thus we have: ákwà = cloth, ákwá = cry, àkwá = egg, àkwà = bed/bridge".

The above examples showed why tonal inflection in any African language is indispensable in the rethym when it is recognized that most monosyllabic and disyllable words have several meanings according to their tonal accents. In line with the above view, Ijeoma's research and our research are similar, because they both deal with tone.

Bakari C. and Hokororo,(2022) conducted a research on "Tone in Kinguu Infinitive Verbs."The study was guided by three objectives which were to describe tone in simple infinitive verbs, to describe tone in complex infinitive verbs and to establish tonological rules which govern tone assignment in Kinguu infinitives. The infinitives were studied in isolation and the study used the Autosegmental theory based on Goldsmith (1976). The data was collected via interview of which the researcher guided the

informants on the prepared corpus of Kiswahili infinitives to be pronounced in Kinguu by the Kinguu speakers, and then the pronunciations were recorded for marking tone. The main behaviour observed in Kinguu infinitive tones is that there is High tone spread, shifting and penultimate back hopping. **II.**

Kinguu is one of Bantu languages spoken in North Eastern Tanzania in Tanga region at Kilindi district and in some parts of Morogoro region at Turiani and Mvomero districts. The language is spoken by approximately 300708 people in Tanzania, where 214586 speakers are found in Tanga who constitute 94.6% of the total population and 95622 speakers are found in Morogoro who constitute 5.4% of the total population. The focal point research for their research is tonal variation in infinitive verbs, but they also cited some lexical tonal variation which makes the research to be relevant to our research. The lexical tone differentiates the meaning of words which have the same morphology (different words which are spelled the same). Below are some examples of lexical tone in Kinguu.

3   a)*khonde* "farm"   (LL)
    b)*khónde* "marijuana"   (HL)
4   a) *chi za* "dark"   (LL)
    b)*chí za* "we have came"   (HL)

Base on the examples presented above, the first syllable of the stem /kho/ is Low toned and the vowel of the final syllable of the stem /nde/ is Low toned, this word means "farm". In (b) the same word when the first syllable of the stem /khó/ is High toned and the final syllable of the stem /nde/ is Low toned the word changed its meaning and meant "marijuana".

In example (4) example (a) the first syllable of the stem /chi/ is Low toned and the final syllable of the stem /za/ is also Low toned, this word means "dark" but in (b) the same word, when the first syllable of the stem /chí/ is High toned and the final syllable of the stem /za/ is Low toned, the word changed its meaning and meant "we came".

As seen in example (1,2 and 3,4) words of the same morphological structure (spelled the same), their meanings are differentiated by tone variations. Therefore, this gives us a proof that Kinguu has lexical tone.

Based on the data presented above on Kinguu

language we can established the similarities between the Hausa language and Kinguu, Firstly, they are both tonal languages, they also shared similarities in lexical tone rules which indicates the tonal pattern of a syllable.

Examples in Hausa Language

1. Aisha tayi záné mai kyau
    (Aisha did a beautiful drawing)
2. Aisha ta zànè yara da bulala
    (Aisha flogged the children with a whip)
    (a)Na sayi Jàkà
    (I bought a bag)
3. Na hau jákáá
    (I climbed a female donkey)

Examples in kinguu Language

1. a) *h í t a* "I went"
    b) *h i t a* "go"
2. a) *k u m w í t á n g a*   *"you called him/her?"*
    b) *k u m w i t á n g a*   "to call him/her"

Therefore we can conclude by indicating that Bakari's research and our research are similar, because they both deal with tonal patterns, the research differs in some as aspect such as verb order and some syntactic aspects.

Adeniyi, (2015) conducted a research on high tone lowering in Ìgbòmina-Yorùbá the research examines tone lowering in Yoruba language. Yorùbá is a West Benue-Congo language spoken in South-western Nigeria as well as in other countries such as Togo, Sierra Leone, the Republic of Benin, Brazil and Cuba. Although the standard form of Yorùbá (SY) has been extensively studied, a lot is still yet to be fully understood about its sound system. One of such is the mechanism of hiatus resolution in the language. It has also been demonstrated that studies of the dialects of Yorùbá have the potential to deepen the knowledge of the language significantly at both diachronic and synchronic levels. The Ìgbòmina dialect of Yorùbá is spoken in about 112 towns and villages spread across Ifedayo and Ila-Orangun Local Government Areas of Osun State in South-Western Nigeria and Irepodun, Ifelodun, Isin, Ilorin East and Ilorin South Local Government Areas of Kwara State in North-Central Nigeria (Adeniyi 2004:3). Adeniyi asserts that, the Ìgbòmina dialect of Yorùbá has an unusual tone lowering phenomenon that is not reported for SY. It reports further that while the lowering may appear similar to down step (DS), its facts are at variance with those reported for DS in SY as well as the standard conceptualisation of the DS phenomenon.

Adeniyi (2015) further asserts that, Yorùbá operates a three-tone system, having (H)igh tone (marked with a superscript acute accent " ´ " on the vowel), (M)id tone (marked with a superscript macron "¯" on the vowel) and (L)ow tone (marked with a superscript grave accent " ` " on the vowel). The three tones are contrasted after initial M in the examples below;
Three-way tonal contrast in SY
  a. īgbá "calabash"
  b. īgba̅ "two hundred"
  c. īgbà "rope for climbing palm tree"

The language has a tone spreading process by which L spreads to a following H thereby making the H realised as a phonetic LⱧ rising tone (2a), while H spreads to a following L thereby making the L realised as a phonetic HⱢ falling tone (2b).
Tone spreading in SY

d. igbà   ´__ igbà ¯"garden egg"

e. olóyè __ olóye̅ "chief"

Non-initial L in Yorùbá triggers the down drifting of following tones. Also, M is clearly down stepped when preceded by a low tone that is no longer phonetically visible. The H is also down stepped in this environment, but the spreading of the L to H makes its lowering less significant.

H-Lowering in Ìgbòmina

It is usual to have L-H-L tonal sequence where the first L either occurs on a monosyllabic word or is on the final tone-bearing-unit (TBU) of a disyllabic noun, the H is on a monosyllabic verb and the last L is on the prefix of a disyllabic noun in Ìgbòmina Yorùbá.

Based on the data presented above on Yoruba tonal aspect we can establish the similarities between the research and our research, both researches deal with tonal variation in Hausa language and Yoruba, as can be seen in the examples below;

Hausa language

(a) Wàsà   (Play)
(b) Wásáá   (Sharpening)

Example in sentence;
(a) Yara suna wàsà
      (Children are playing)
      Musa yana wásáá gatari
      (Musa is Sharpening an axe
      Káásá   (obstacle)
      Kàsà   (shared)

Yoruba Language
īgbá "calabash"
iḡba "two hundred"
īgbà "rope for climbing palm tree"

2.2 Brief Background to Hausa Language
According to Greenberg (1963) African Languages are classified in to four major groups; Afro-Asiatic, Nilo Saharan, Congo kordofian and Khoison. Hausa belongs to Chadic family which is a sub-group of Afro-Asiatic. Hausa is recognized as an indigenous national language in the constitutions of both Nigeria and Niger. So-called Standard Hausa is based on the pan-dialectal koine of Kano (Nigeria), which is the biggest commercial centre in Hausa land. According Newman, (1972) There are two major dialect areas: the northwestern area, comprising most of the dialects spoken in Niger (Kurfeyanci around Filinguey, Aderanci around Tahoua, Arewanci around Dogondouchi, Tibiranci around Maradi, and Damagaranci around Zinder) plus those of Sokoto (Sakkwatanci) and Katsina (Katsinanci) in Nigeria; and the eastern area, with Kano (Kananci), Zaria (Zazzaganci), and Bauchi (Guddiranci) as prominent urban agglomerations with their own dialectal variants. Dialectal variation, however, does not impede mutual intelligibility across the whole of Hausa land. While Abubakar (1983) as cited in Ahmed and Bello (1970) identified seven major dialects of Hausa, which include; (i) Kananci (ii) Sakkwatanci (iii) Zazzaganci (iv) Katsinanci (v) Dauranci (vi) Hadejiyanci (vii) Bauci dialect.

Serious linguistic research on the language began in the mid-19th century with the works of the German missionary J.F. Schön. Hausa has been taught outside Africa since 1885, when the first course was offered in Berlin. Today Hausa is taught on a regular basis throughout the world, mainly at universities that have a department specializing in African languages. An early milestone in Hausa studies was the 1934 publication of a dictionary compiled by the Rev. G.P. Bargery; it had about 40,000 entries and demonstrated the remarkable number of loanwords from Arabic, English and other languages.

3.0 Theoretical framework and Research Methodology
This section consists of the theoretical framework and research methodology. The section is divided into two: the first section is concerned with the theoretical framework adopted for theresearch, while the second section deals with the methodology adopted for data collection and analysis.

3.1 Theoretical framework
The theory adopted for this research is autosegmental phonology based on John Goldsmith (1976) As a theory of phonological representation, autosegmental phonology developed a formal account of ideas that had been sketched in earlier work by several linguists, According to the theory a view, phonological representations consist of more than one linear sequence of segments; each linear sequence constitutes a separate tier. The co-registration of elements (or *autosegments*) on one tier with those on another is represented by association lines. There is a close relationship between analysis of segments into distinctive features and an autosegmental analysis; each feature in a language appears on exactly one tier. The working hypothesis of autosegmental analysis is that a large part of phonological generalizations can be interpreted as a restructuring or reorganization of the autosegments in a representation. Clear examples of the usefulness of autosegmental analysis came in early work from the detailed study of African tone languages, as well as the study of vowel and nasal harmony systems. A few years later, John McCarthy proposed an important development by showing that the derivation of words from consonantal roots in Arabic could be analyzed autosegmentally.

The autosegmental formalism deals with several separate linear sequences; because of this,

a phonological representation is depicted on several distinct tiers. Each of these tiers shows a different language feature.

3.1.2 Segmental tier

The autosegmental tier (also "skeletal tier") contains the features that define the segments articulated in the phonological representation. The descriptions given in the previous section deal with the segmental tier. In the segmental tier, features are assigned to segments.

Timing tier

The timing tier contains timing units that define the lengths of segments in the phonological representation. These timing units are commonly depicted as X's, and are assigned to segments.

Stress tier

The stress tier contains the features that show the distribution of stress in the phonological representation. The features in the stress tier are [+/– stress] and [+/– main], and they are assigned to the stress-bearing units of the language (syllables or moras).

Tone tier

The tone tier contains the features that show the distribution of tones in the phonological representation. The features in the tone tier are [+/– high pitch] and [+/– low pitch], and they are assigned to the tone-bearing units of the language syllables. Therefore, in this paper the tone tier is used as a yardstick in identifying tonal words in Hausa for onward analysis.

3.2 Methodology

This study is qualitative research that gathered and analyzed non-numerical data in order to gain an understanding of Tonal variation in Hausa as a case study. A Case study is an in-depth research design that primarily uses a qualitative methodology and sometimes͡ includes a quantitative methodology to examine an identifiable problem confirmed through research, including the procedures of understanding the targeted concept. Hence, this study is qualitative research that utilizes autosegmental phonology in analyzing selected Hausa lexemes with tonal variation.

4.0 Data presentation

As stated earlier, the aim of this paper is focusing a study on Hausa language vocabulary, with the aim of identifying words with same orthographic spelling but distinct in pronunciation and meaning. Below are the words with their glosses and examples to justify their distinction.

word	gloss
1. Káráá	Sound
Kàrà	increase

Examples in sentence;
Káráá yayi yawa
(The sound is too much)
Ta kàrà sautin Rediyo
(She increased the volume of the radio)

2. **Word**	**Gloss**
Záné	Drawing
Zànè	Flog

Examples in sentence;
4. Aisha tayi záné mai kyau
   (Aisha did a beautiful drawing)
5. Aisha ta zànè yara da bulala
   (Aisha flogged the children with a whip)

3. **Word**	**Gloss**
Wùyáá	difficulty
Wùyà	neck

Example in sentences;
(a) Jarabawa tayi wùyáá
    (The examination was difficult)
(b) Musa ya karya wùyà
    (Musa broke neck)

4. **Word**	**Gloss**
Jàkà	bag
Jákáá	female donkey

Examples in sentence:
(a) Na sayi Jàkà
    (I bought a bag)
(a) Na hau jákáá
    (I climbed a female donkey)

5. **Word**	**gloss**
(b) Wàsà	Play
(b) Wásáá	Sharpening

Example in sentence;
(b) Yara suna wàsà
    (Children are playing)
    Musa yana wásáá gatari
    (Musa is Sharpening an axe)

6. **Word** — **Gloss**
   Káásá — obstacle
   Kàsà — shared

Example in sentence;
(a) Ya Káásá gamawa
   (He couldn't finish)
   (b) Ya Kásá kayansa
   He distributed his goods / items

7. **Word** — **Gloss**
   Fásáá — cancel
   Fàsà — break

Examples in sentence;
   Ya fásáá yin tafiya
   (He cancelled the journey)
   Ya fàsà kwakwa
   (He broke a coconut)

8. **Word** — **Gloss**
   Tàrà — nine
   Táráá — add

Examples in sentence;
   Ya zo karfe tàrà
   (He came nine o'clock)
   Ya táráá kudi
   (He gathered money)

9. **Word** — **Gloss**
   Gàdò — Bed
   Gáádó — Inheritance

Examples in word;
(a) Yayi barci akan gádó
   (He slept on the bed)
(b) Sun raba kudin gáádò
   (They shared the inheritance money)

10. **Word** — **Gloss**
   Jáá — Red
   Jà — draw

Examples in sentence
(a) Motar Musa jáá cee
   (Musa's car is red)
(b) Ya jà zare
   He drew a thread

11. **Word** — **Gloss**
   Wàtà — moon
   Wátáá — Someone (feminine)

Examples in sentence;
(a) Mun shiga sabon wàtà
   (We entered new month)
(b) Watáá yarinya ta shiga gida
   (A girl entered a house)

12. **Word** — **Gloss**
   Màtà — woman / wife
   Mátáá — women

Examples in sentence;
(a) Màtàta ta yi tafiya;
   (My wife has travelled)
(b) Mátáá sun taru
   (Women gathered)

13. **Word** — **Gloss**
   Kwáríí — Insect
   Kwàrì — strong

Examples in sentence;
(a) Kwáríí na damu na
   (Insects are disturbing me)
(b) Jakar tana da kwàrì
   (The bag is strong)

14. **Word** — **Gloss**
   Gàbà — front
   Gábáá — enmity/rivalry

Examples in sentence;
(a) Mune a gàbà
   (We are in the front)
(b) Sun kashe abokan gábáá
   (They killed the enemies)

15. **Word** — **Gloss**
   Kwànà — corner
   kwánáá — day(s)

Examples in sentence;
(a) Sun tsaya akan Kwànà
   (They stood at the corner)
(b) Sun yi kwánáá biyu akan hanya
   (They spent two days on the road)

word — **gloss**
Rágóó — Lazy
Ràgò — Ram

Examples in sentence;
(a) Musa ràgò ne
   (Musa is lazy)
(b) Musa ya sayi rágóó
   (Musa bought a ram)

4.1 Discussion of findings

The data presented above, indicated that Hausa is a tonal language, based on the data presented which clearly indicated the bonding between tonal variation and semantic representation. Meaning in Hausa language is determine by the tonal pattern of the word(s) e,g. Kwáríí (Insect) Kwàrì (strong). These words have same orthographic representation but differs in the tonal pattern which in turn varies the meaning,

this phenomenon proves that tone is a determiner of meaning in Hausa language, hence there are several words with the same orthographic spelling but differs in pronunciation as well as the meaning, as can be clearly seen in the data presented above.

5.0 Conclusion

Based on the literature and examples presented above, we can conclude by saying that tone is a crucial phonological aspect in Hausa language that is used in making distinction between words that are orthographically identical but distinct in pronunciation and meaning. As mentioned earlier Hausa is a tonal language. Therefore, the tone must always be used for referential purposes especially in academic writings, because this will go a long way in guiding non-native speakers in knowing the correct pronunciation of a given word or an expression. Therefore, tone is an aspect of Hausa language that is paramount in an effective and mutual communication, because it determines the correct pronunciation as well as the meaning.

5.1 Recommendation

Tone in important aspect in linguistics that determines the pronunciation of a given word which in turn determines the meaning of the word. A language is either a stress timed language or a tonal language. Therefore in the codification of any tonal language it is recommended to mark the tone of the syllable which is use in determines the meaning especially for the pedagogic purposes.

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