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# A STUDY ON THE VOWELS AND VOWEL LENGTH OF THE TANGSA LANGUAGE

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## ABSTRACT

*The Tangsa language belongs to the Sino-Tibetan family of languages. It is spoken by the Tangsa people of Myanmar and North-eastern India. This language is recognized as an underdeveloped language, though it has a great deal of speakers both in India and Myanmar, especially in the Trans-Border areas.*

*In this paper it is an attempt to find out the basic phonological features of vowels of the Tangsa language. The premises that I pursued to establish the phonemic inventory and their distributions are –*

- *Listing the suspicious pairs of sounds from collected data.*
- *Phonetic interpretation.*
- *Phonetic similarity.*

*There are only six vowels in Tangsa language and five of them have obtained short and long distinction. Vowel length may not enable identification of any individual vowel, but does help the listener to distinguish spectrally similar vowels or place vowels in large categories. That's why vowel length study is played a significant rule to study in such languages.*

**Key words:** Tangsa language, vowel, vowel duration, vowel length.

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## 1. THE TANGSA LANGUAGE

The Tangsa language originated from the ethno-linguistic group of the Sino-Tibetan language family. Most of the linguists noted that the Tangsa language is an off-shoot of the Boro-Naga group. But they do not recognize themselves as an off-shoot of the Naga or the Bodo-Naga group. G. A. Grierson [1968], Paul K. Benedict [1972], Robert Shafer [1972] and Suniti Kumar Chatterji [1951], elaborately discussed the Sino-Tibetan speech family, but the origin of the Tangsa language was not discussed by any of these scholars. Later on, some researchers

tried to explain the Tangsa language as a sub-group of Konyak, which is basically a sub-group of the Naga group [Maral, p.1].

The Tangsa tribe includes several sub tribes like Youngkuk, Tikhak, Longchang, Muklom, Mosang, Morang, Lungphi, Lungri, Kimsing, Yogi, Rong Rang, Sanke, Snagwal, Havi and Tonglim. The first four groups are collectively known as Tangwa. Each group of Tangsa tribe speaks a separate dialect which belongs to the Tibeto-Burman language family.

In North-East India the Tangsa language can be estimated as a threatened language. According to the linguistic variation the Tangsa language can be divided into the following sub-divisions. These are – Moklum, Mungray, Kimsing, Longchang, Rongrang, Mosang, Havi, Longri, Tikhak, Ponthei, Jugli etc. The locations of some varieties of the Tangsa Language are given below—

**Jugli** :Kantang, Longlung, Rangran villages, Central Tirap District, Rekhung village, Joyrampur of Arunachal Pradesh.

**Longchang**:Changlang, Rangkatu, and Kengkhu villages, Eastern part of Tirap District, Rekhung of Arunachal.

**Mosang**:Nayang village of Miao area, Theremkan village of Nampong circle, Eastern part of Changlang District, Rekhung of Arunachal Pradesh.

**Moklum**:Changlang, Joyrampur, Miao of Arunachal Pradesh.

**Tikhak**:Joyrampur, Nampong circle of Arunachal Pradesh.

Though the Tangsa is a distinct speech community in Arunachal Pradesh of North-East India and they have a traditional culture, religion and language of their own.

## 2. MAIN OBJECTIVES OF THE PRESENT STUDY ARE

- To discuss about the vowels of the Tangsa
- To discuss about the description of vowels of the Tangsa
- To examine the Distribution of vowels in Tangsa
- To give a basic idea of duration of vowels of the Tangsa.

## 3. METHODOLOGY

The complete study can be divided into the following methodological approaches—

- Preparation of lingua-questioner
- Selection of areas (Geographical)
- Selection of dialectal areas
- Field study

## 4. METHODS OF DATA COLLECTION

### 4.1. Primary source

Primary Data has been collected by conversing with the people in both formal and informal situations. In formal situation, questions have been asked from the prepared questionnaire and in the informal situation, general conversation has been recorded. Some male and female speakers were selected randomly and out of the random recorded samples, I selected the best recording which was also adjudged by the native speakers of Tangsa as most clear articulation of words. The informants were selected from different dialect-domains. For this purpose, I visited Miao sub-division

Data are collected from three sources. These are –

- Supplied vocabulary
- Guided sentences
- Informal conversation

### Secondary source

Secondary Data were collected from the written documents viz. books, journals, government records, internet etc.

### 4.2. Data analysis

- The word list was prepared from data collected through field study. Collected data were verified with various local informants.
- Audio data was recorded from native speakers using a digital voice recorder . Collected data has been analyzed by random sampling. Both the perceptual and instrumental analysis is being performed to accomplish the work.
- Phonetic data was analyzed in PRAAT and CSL 4500 at the Language Laboratory, Department of Assamese, Dibrugarh University, Assam.

## 5. THE VOWELS OF THE TANGSA LANGUAGE

As per phonetic and phonemic analysis of recorded data the Tangsa language has found distinguished six vowels in monophthongs. There are only five vowels with obtained short and long distinction. The phoneme /@/ is not found in vowel length. The short vowels - / i, e, @, u, ʊ, a/ and long vowels - / i:, e:, u:, ʊ:, a:/.

The vowels show contrast in three positions of words, i.e. initial, medial and final. According to the tongue position related to the closeness of tongue with palate the vowels of Tangsa can be divided into five sections i.e. close, close-mid, mid, open-mid and open and according to the segment of the tongue it can be divided into three divisions, viz. front, central and back. Front and central vowels of Tangsa are unrounded and back vowels are rounded. In the Tangsa language long-short distinction of vowels are phonemic but nasalization is not phonemic. Nasalization is distinguished in complementary distribution, so it can be taken as allophonic distribution of vowels. Nasalization of vowels of the Tangsa language occurs when the vowels are followed by nasal or glottal fricative segments.

According to the pronunciation i.e. articulation and place of production the phonetic positions of these vowels of the Tangsa language are shown in the following figure.

Table 1

	Front	Central	Back
Close	/i, i: /		/u, u: /
Close-mid	/e, e: /		
Mid	/@/		
Open-mid			/ʊ, ʊ:/
Low		/a, a: /	

### 1,1Description and Distribution of vowels

/i/

The phoneme /i/ is a close front unrounded vowel. In the utterance of the vowel the front part of the tongue is raised as much closer to the front part of hard palate from where raising of

tongue will be cause of friction. Position of lip is being unrounded. This phoneme is found in all position i.e. initial, medial and final position.

**Initial position**

[ir <sup>o</sup> ]	‘this’
[imtan]	‘what’

**Medial Position**

[pik]	‘field’
[sia]	‘ring finger’

**Final position**

[l <sup>o</sup> i]	‘buffalo’
[rai]	‘help’

**/e/**

The phoneme /e/ is a close-mid front unrounded vowel. To pronounce /e/ in Tangsa the front tongue is being placed between the position of open-mid in lower dimension and close in upper dimension. This phoneme is found in medial and final position. But it is not found initially.

**Medial position:**

[ĕem]	‘house’
[ĕene]	‘crab’

**Final position:**

[se]	‘vagina’
[tune]	‘broom’

**/a/**

Phoneme /a/ is open central half rounded vowel phoneme. This phoneme is found in initial, medial and final position.

**Initial position:**

[aria]	‘see’
[av <sup>o</sup> k]	‘pragment’

**Medial position**

[ġam]	‘muscle’
[p <sup>h</sup> ak]	‘shoulder’

**Final position:**

[na]	‘ear’
[ra]	‘nerve’

**/<sup>o</sup>/**

Phoneme /<sup>o</sup>/ is open-mid rounded vowel. This phoneme is found in medial and final position. But it is not found initially.

**Medial position**

[s <sup>o</sup> k]	‘spite’
[r <sup>o</sup> d]	‘food canal’

**Final position:**

[mair <sup>o</sup> ]	‘dwarf’
[rav <sup>o</sup> ]	‘hope’

**/u/**

Phoneme /u/ is close back rounded vowel. This vowel is pronounced as close back. This phoneme is only found in medial and final position. But it is not found initially.

**Medial position:**

[vu-k<sup>h</sup>uk] 'owl'

**Final position:**

[ku] 'cow'

[vu] 'bird'

**/ə/**

Phoneme /ə/ is a mid-central vowel. To pronounce this vowel in Tangsa the central part of the tongue is placed in the mid position and the lips remain unrounded,. This phoneme is found in medial and final position. But it is not found in initial position

**Medial position**

[m@t<sup>h</sup>@] 'a kind of plum'

[ts@tik] 'a species of leopard'

**Final position**

[p@] 'snake'

[tak@] 'nine'

**6. DURATION OF VOWEL LENGTH**

Duration of vowel length may not enable identification of any individual vowel, but does help the listener to distinguish spectrally similar vowels or place vowels in large categories [Kent & Read, 1995]. Klatt (1976) based on his experiments reported that, factors such as tense-lax feature of the vowel, vowel height, syllable stress, speaking rate, voicing of a preceding or following consonant, place of articulation of a preceding or following consonant and various syntactic or semantic factors influence the vowel duration. The vowel length duration of the tangsa language are given below

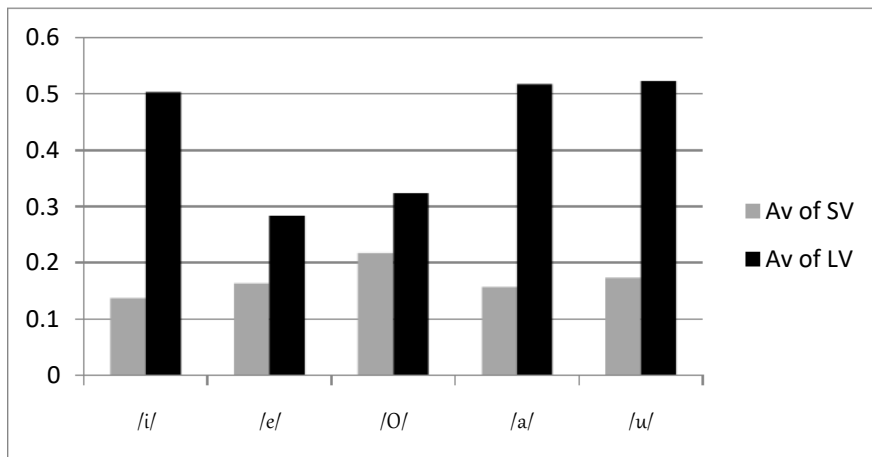
**Table 2** Average duration of short and long vowels of Tangsa

Vowel	Duration (m.s.)			
	Articulation	Articulation	Articulation	Average
/i/	0.15	0.14	0.12	0.137
/i:/	0.44	0.49	0.58	0.503
/e/	0.15	0.17	0.17	0.163
/e:/	0.27	0.28	0.30	0.283
/ɔ/	0.18	0.22	0.25	0.217
/ɔ:/	0.29	0.32	0.36	0.323
/a/	0.16	0.13	0.18	0.157
/a:/	0.49	0.51	0.55	0.517
/u/	0.15	0.18	0.19	0.173
/u:/	0.48	0.53	0.56	0.523

Values  $\sigma$ -(F2- F1) and -F1 for all short and long vowel TangsaLanguage

**Table 3**

Vowel	Av of SV	Vowel	Av of LV	S: L
/i/	0.137	/i:/	0.503	1 : 3.67
/e/	0.163	/e:/	0.283	1 : 1.74
/O/	0.217	/O:/	0.323	1: 1.49
/a/	0.157	/a:/	0.517	1:3.29
/u/	0.173	/u:/	0.523	1:3.14
<b>Av.</b>	<b>0.183</b>	<b>Av.</b>	<b>0.53</b>	<b>1 :3.02</b>



**Figure 1**

The bar chart cited above shows the average of the all five articulations each of long and short vowels in the speech of the selected. All the examples indicate that durational contrast between long and short vowels is prominent and distinctive. In case of /i/, /a/, and/u/ the long vowels are 3.1 times to 3.6 times as long as their corresponding short vowels. The average of vowel duration for long vowels is 0.53 and 0.183 for short vowels, which is indicated by the last two bars on the bar diagram above.

## 7. CONCLUSION

From the above discussion, it is clearly observed that there is a descriptive account of the vowels in the Tangsa Language in terms of description and distribution of vowels. The following points found in the study can be summarized—

- The tangsa language has found distinguished six vowels in monophthongs. There are - / i, e, @, u, O, a/
- There are only five vowels of the tangsa language obtained short and long distinction. The phoneme /@/ is not found in vowel length. \
- /i/ and /a/ phonemes are only found in all three positions. Other four phonemes are only found in medial and final positions.
- Four pairs of long and short vowels have significant durational difference, the long vowels being two to four times longer than their corresponding short vowels. In case of /i/, /a/, and/u/ the long vowels are 3.1 times to 3.6 times as long as their corresponding short vowels. The average of vowel duration for long vowels is 0.53 and 0.183 for short vowels.

The study demands highly an academic value. The analysis will be more valuable for researchers in future work, in particular the acoustic analysis with will direct a new path for future study. Observing the vast scope and necessity of analyzing the various aspects of the Sino-Tibetan language family of North-East, we have proceeded to do a work on the topic.

**Table 4** List of informants

Sl. No.	Name	Age	Address
1.	Ramen Tikhak	28	Nampong, Changlang District.
2.	MungsaMosang	35	-do-
3.	KengsangMosang	39	-do-
4.	TanuMosang	50	-do-
5.	Lalitmosang	40	-do-

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