

*Tone in the Khorat Dialect and the Northeastern Dialect*

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Abstract

The main objective is to study and to compare between the tone of dialect in Khorat and Northeastern in Nonsung, Nonthai, Phimai and Pakthongchai district, Nakhon Ratchasima province. Thailand.

The data was recorded from two native speakers per district by using the Cool Edit Pro program. 60 wordlist of William J. Gedney's tonebox.

The investigation was carried out in two main stages. In the first step, the pattern of tone was splitted and merged. In the second step, 1,440 test tokens were investigated the acoustic characteristics analysis by Praat program.

The results indicate that Nonsung, Nonthai and Phimai districts used Khorat dialect. Two varieties are spoken in Pakthongchai district. The Khorat dialect has 4 tones, while the Northeastern dialect has 6 tones. In Nonsung, Phimai and some area in Nonthai district, the pattern of tone is A1-3 = DS1-3, A4, B1-3= C1 =DL1-3 and B4 = C2-4=DL4 = DS4. Nonthai and Pakthongchai spoken Khorat dialect is A1 = DS1-3, A2-4, B1-3 = C1 = DL 123 and B4 = C2-4 = DL4 = DS4. Whereas the pattern of Pakthongchai spoken Northeastern dialect is A1 = DS1-3, A1-2, A4, B1-4, C1, DL 1-3 and C1-3, DL4, DS4.

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## **1. Introduction**

Nakhon Ratchasima province or Khorat is one of the Northeastern provinces of Thailand. Khorat is the gateway to the North-East (Isaan) from the Central influenced by languages i.e. Standard Thai and Northeastern Dialect. Moreover, Brown (1985) defined the language spoken in Khorat is Cleole derived from the phonological of Lao language changed to Thai language but keep the accent in. In the previous mentioned studies above, Khorat dialect is halfway between Thai and Isaan. (Piyawit, 1987)

The languages spoken in Khorat are various which can be classified into 2 groups i.e. Khorat Dialect and the Northeastern Dialect.

This paper will be focusing on Khorat Dialect and the Northeastern Dialect spoken at Nonsung, Nonthai, Phimai and Pakthongchai district in Nakhon Ratchasima province, Northeastern, Thailand

## **2. Objective**

To study and to compare the tone in the Khorat dialect and the Northeastern dialect at Nonsung, Nonthai, Phimai and Pakthongchai district in Nakhon Ratchasima province, Northeastern, Thailand

## **3. Method**

### **3.1 Selected languages**

Khorat dialect and Northeastern dialect were spoken in Nakhon Ratchasima province. All these two languages are in the same language family which is Tai language family with SEA tonal languages.

### **3.2 Data collection**

The data used in this study was collected from two female native speakers (30-60 years olds) per district. The total are 8 informants (2 informants x 4 districts). The informants were born and resided in Nonsung, Nonthai, Phimai and Pakthongchai district, Nakhon Ratchasima province, Northeastern, Thailand, respectively. All speakers use their language as the home language.

### **3.3 Test words**

The tested words in this study were taken from 60 wordlist of William J. Gedney's tonebox. In some cases, more suitable words were replaced. The detail can be seen in appendix. For more information, see Brown 1985 and Gedney 1989.

### **3.4 Data recording**

Totally 1,440 test tokens (60 test words x 4 district x 2 informants x 3 times) were used for acoustical measurements. The recorded site of this study was quieted which could be found in each villages by using Cool Edit Pro program. A microphone was connected directly to the notebook. All informants were naturally pronounced each word three times. The best qualified one was selected to be used for analysis.

### 3.5 Data analysis

The data were divided into 2 main parts 1) The splitted and merged tone and 2) the acoustic characteristics.

The fundamental frequency (F0) was measured and analyzed at the vowel onset and every 10% of the vowel duration (11 points), the Praat program was used. The validity of the acoustical measurements was tested by using T-test ( $p < 0.05$ ). The results were shown in the figures.

### 4. Results

The results indicate that Nonsung, Nonthai and Phimai district use Khorat dialect. Two varieties are spoken in Pakthongchai district. The Khorat dialect has 4 tones, while the Northeastern dialect has 6 tones. The pattern of splitted and merged tone in Nonsung, Phimai and some area in Nonthai district is A1-3 = DS1-3, A4, B1-3 = C1 = DL1-3 and B4 = C2-4 = DL4 = DS4. The pattern of Nonthai and Pakthongchai spoken Khorat dialect in some area is A1 = DS1-3, A2-4, B1-3 = C1 = DL 123 and B4 = C2-4 = DL4 = DS4. Lastly Pakthongchai spoken Northeastern dialect's pattern is A1 = DS1-3, A1-2, A4, B1-4, C1 = DL 1-3 and C1-3 = DL4 = DS4. See figure 1 and 2.

| 1 <sup>st</sup> Nonsung informant |     |   |     |    | 2 <sup>st</sup> Nonsung informant |   |     |   |     |    |     |
|-----------------------------------|-----|---|-----|----|-----------------------------------|---|-----|---|-----|----|-----|
|                                   | A   | B | C   | DL | DS                                |   | A   | B | C   | DL | DS  |
| 1                                 | T.1 |   | T.3 |    | T.1                               | 1 | T.1 |   | T.3 |    | T.1 |
| 2                                 |     |   | T.4 |    |                                   | 2 |     |   | T.4 |    |     |
| 3                                 |     |   |     |    |                                   | 3 |     |   |     |    |     |
| 4                                 | T.2 |   |     |    |                                   | 4 | T.2 |   |     |    |     |
| 1 <sup>st</sup> Nonthai informant |     |   |     |    | 2 <sup>nd</sup> Nonthai informant |   |     |   |     |    |     |
|                                   | A   | B | C   | DL | DS                                |   | A   | B | C   | DL | DS  |
| 1                                 | T.1 |   | T.3 |    | T.1                               | 1 | T.1 |   | T.3 |    | T.1 |
| 2                                 |     |   | T.4 |    |                                   | 2 | T.2 |   | T.4 |    |     |
| 3                                 |     |   |     |    |                                   | 3 |     |   |     |    |     |
| 4                                 | T.2 |   |     |    |                                   | 4 |     |   |     |    |     |
| 1 <sup>st</sup> Phimai informant  |     |   |     |    | 2 <sup>nd</sup> Phimai informant  |   |     |   |     |    |     |
|                                   | A   | B | C   | DL | DS                                |   | A   | B | C   | DL | DS  |
| 1                                 | T.1 |   | T.3 |    | T.1                               | 1 | T.1 |   | T.3 |    | T.1 |
| 2                                 |     |   | T.4 |    |                                   | 2 |     |   | T.4 |    |     |
| 3                                 |     |   |     |    |                                   | 3 |     |   |     |    |     |
| 4                                 | T.2 |   |     |    |                                   | 4 | T.2 |   |     |    |     |

| 1 <sup>st</sup> Pakthongchai informant |     |     |     |    | 2 <sup>nd</sup> Pakthongchai informant |   |     |   |     |    |     |
|--|-----|-----|-----|----|--|---|-----|---|-----|----|-----|
|  | A   | B   | C   | DL | DS                                     |   | A   | B | C   | DL | DS  |
| 1                                      | T.1 | T.4 | T.5 | DL | T.1                                    | 1 | T.1 | B | T.3 | DL | T.1 |
| 2                                      | T.2 |     | T.6 |    |  | 2 | T.2 |   | T.4 |    |     |
| 3                                      | T.3 |     |     |    | 3                                      |   |     |   |     |    |     |
| 4                                      |     |     |     |    | 4                                      |   |     |   |     |    |     |

Figure 1 The tone splits and merges of 1<sup>st</sup> and 2<sup>nd</sup> Nonsung, Nonthai, Phimai and Pakthongchai district's speakers

| 1 <sup>st</sup> Nonsung informant      |   |   |   |    | 2 <sup>st</sup> Nonsung informant      |   |   |   |   |    |    |
|--|---|---|---|----|--|---|---|---|---|----|----|
|  | A | B | C | DL | DS                                     |   | A | B | C | DL | DS |
| 1                                      | A | B | C | DL | DS                                     | 1 | A | B | C | DL | DS |
| 2                                      |   |   | 2 |    |  | C |   |   |   |    |    |
| 3                                      | A | B |   |    |  | 3 | A | B |   |    |    |
| 4                                      |   |   | 4 |    |  |   |   |   |   |    |    |
| 1 <sup>st</sup> Nonthai informant      |   |   |   |    | 2 <sup>nd</sup> Nonthai informant      |   |   |   |   |    |    |
|  | A | B | C | DL | DS                                     |   | A | B | C | DL | DS |
| 1                                      | A | B | C | DL | DS                                     | 1 | A | B | C | DL | DS |
| 2                                      |   |   | 2 |    |  | C |   |   |   |    |    |
| 3                                      | A | B |   |    |  | 3 | A | B |   |    |    |
| 4                                      |   |   | 4 |    |  |   |   |   |   |    |    |
| 1 <sup>st</sup> Phimai informant       |   |   |   |    | 2 <sup>nd</sup> Phimai informant       |   |   |   |   |    |    |
|  | A | B | C | DL | DS                                     |   | A | B | C | DL | DS |
| 1                                      | A | B | C | DL | DS                                     | 1 | A | B | C | DL | DS |
| 2                                      |   |   | 2 |    |  | C |   |   |   |    |    |
| 3                                      | A | B |   |    |  | 3 | A | B |   |    |    |
| 4                                      |   |   | 4 |    |  |   |   |   |   |    |    |
| 1 <sup>st</sup> Pakthongchai informant |   |   |   |    | 2 <sup>nd</sup> Pakthongchai informant |   |   |   |   |    |    |

|   | A | B | C | DL | DS |   | A | B | C | DL | DS |
|---|---|---|---|----|----|---|---|---|---|----|----|
| 1 |   |   |   |    |    | 1 |   |   |   |    |    |
| 2 |   |   |   |    |    | 2 |   |   |   |    |    |
| 3 |   |   |   |    |    | 3 |   |   |   |    |    |
| 4 |   |   |   |    |    | 4 |   |   |   |    |    |

**Figure 2** The acoustic characteristics analysis of 1<sup>st</sup> and 2<sup>nd</sup> Nonsung, Nonthai, Phimai and Pakthongchai district’s speakers

**5. Conclusion and discussion**

According to Akharawatthanakun (2003), the pattern of splitted and merged tone in the Northeastern dialect of William J. Gedney’s tonebox is B1-4, C1=DL1-3, C2-4=DL4 and B≠DL (Lao ladder). See figure 3

|   | A | B | C | DL | DS |
|---|---|---|---|----|----|
| 1 |   | = | ⊗ | ⊗  |    |
| 2 |   | = |   | ⊗  |    |
| 3 |   | = |   | ⊗  |    |
| 4 |   | = |   |    |    |

**Figure 3** The pattern of tone splits and merges in the Northeastern dialect

However, the pattern of tone splits and merges in the Khorat dialect of William J. Gedney’s tonebox is B1-3 = C1 = DL1-3 (No Lao ladder)

The finding indicates that the 1<sup>st</sup> Pakthongchai informant from Takhu village speaks Northeastern dialect. All informants from Nonsung, Nonthai, Phimai district and 2<sup>nd</sup> Pakthongchai informant from Don village speak Khorat dialect.

Furthermore, Khorat dialect can be classified into 2 subgroups from the difference of tone splits and merges and acoustic characteristics. The pattern of tone splits and merges in 1<sup>st</sup> subgroup : A1-3 ≠ A4 and 2<sup>nd</sup> subgroup : A1 ≠ A2-4 conform to Phanupong’s study (1986). See figure 4.

| 1 <sup>st</sup> Khorat dialect subgroup |   |   |   |    | 2 <sup>nd</sup> Khorat dialect subgroup |   |   |   |   |    |    |
|---|---|---|---|----|---|---|---|---|---|----|----|
|   | A | B | C | DL | DS                                      |   | A | B | C | DL | DS |
| 1                                       |   |   |   |    |   | 1 |   |   |   |    |    |
| 2                                       |   |   |   |    |   | 2 | = |   |   |    |    |
| 3                                       |   |   |   |    |   | 3 |   |   |   |    |    |
| 4                                       | = |   |   |    |   | 4 |   |   |   |    |    |

Figure 4 : The pattern of tone splits and merges in 1<sup>st</sup> and 2<sup>nd</sup> Khorat dialect subgroup

According to Phanupong (1986), can be classified Khorat dialect into 3 subgroups but in this study, it was found only 2 subgroups because the selected area of this study do not cover all of province, It cannot be concluded that Khorat dialect can be classified into only 2 subgroups

The finding from Pakthongchai district indicates the clear difference between Khorat dialect and Northeastern dialect. That is to say, Lao people from Vientiane have been immigrated to Takhu district. This caused the language pattern. Thai is why the Northeastern dialect and Lao language are similar.

This paper confirms “Khorat dialect is Creole” combining between Standard Thai and Northeastern dialect.

**6. Acknowledgement**

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**Appendix**

|             |                              | Open Syllables |                      |    |                       |    |                            | Closed Syllables |   |    |                       |
|-------------|------------------------------|----------------|----------------------|----|-----------------------|----|----------------------------|------------------|---|----|-----------------------|
|             |                              | A              |                      | B  |                       | C  |                            | DL               |   | DS |                       |
| <b>High</b> | <b>Voiceless Aspirated</b>   | 1              | /hũu/<br>'ear'       | 13 | /khày/<br>'egg'       | 25 | /khâaw/<br>'rice'          | 37               | /khàat/<br>'torn'                       | 49 | /màt/<br>'flea'       |
|             |                              | 2              | /khãa/<br>'leg'      | 14 | /phàa/<br>'cleave'    | 26 | /s̄ta/<br>'shirt'          | 38               | /sàak/<br>'pestle'                      | 50 | /sùk/<br>'cooked'     |
|             |                              | 3              | /hũa/<br>'head'      | 15 | /khàw/<br>'knee'      | 27 | /hâa/<br>'five'            | 39               | /hàap/<br>'to carry on a shoulder pole' | 51 | /phàk/<br>'vegetable' |
| <b>Mid</b>  | <b>Voiceless Unaspirated</b> | 4              | /pī/<br>'year'       | 16 | /pàa/<br>'forest'     | 28 | /pâa/<br>'aunt'            | 40               | /pòot/<br>'lung'                        | 52 | /kòp/<br>'frog'       |
|             |                              | 5              | /tāa/<br>'eye'       | 17 | /kày/<br>'chicken'    | 29 | /klâa/<br>'rice seedlings' | 41               | /piik/<br>'wing'                        | 53 | /tāk/<br>'to scoop'   |
|             |                              | 6              | /kīn/<br>'eat'       | 18 | /kêε/<br>'old'        | 30 | /tôm/<br>'to boil'         | 42               | /tòok/<br>'to hammer'                   | 54 | /cèp/<br>'hurt'       |
|             | <b>Glottalized Voiced</b>    | 7              | /bīn/<br>'fly'       | 19 | /bâa/<br>'shoulder'   | 31 | /bâa/<br>'crazy'           | 43               | /dêεt/<br>'sunshine'                    | 55 | /bèt/<br>'fishhook'   |
|             |                              | 8              | /dēεŋ/<br>'red'      | 20 | /bâaw/<br>'young man' | 32 | /bâan/<br>'house'          | 44               | /ʔâap/<br>'to bathe'                    | 56 | /dip/<br>'unripe'     |
|             |                              | 9              | /dâaw/<br>'star'     | 21 | /dâa/<br>'to scold'   | 33 | /ʔâa/<br>'open mouth'      | 45               | /dòok/<br>'flower'                      | 57 | /ʔòk/<br>'chest'      |
| <b>Low</b>  | <b>voiced</b>                | 10             | /mīi/<br>'hand'      | 22 | /phôo/<br>'father'    | 34 | /náam/<br>'water'          | 46               | /mīit/<br>'knife'                       | 58 | /nók/<br>'bird'       |
|             |                              | 11             | /ŋūu/<br>'snake'     | 23 | /mêε/<br>'mother'     | 35 | /nóon/<br>'younger'        | 47               | /lūuk/<br>'child'                       | 59 | /mót/<br>'ant'        |
|             |                              | 12             | /nâa/<br>'ricefield' | 24 | /râi/<br>'dry field'  | 36 | /má:/<br>'horse'           | 48               | /l̄ât/<br>'blood'                       | 60 | /wát/<br>'temple'     |

