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Tonal Variation Caused by Language Contact: A Case Study of the Yong Language

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ABSTRACT

This research aims to analyze and compare the acoustic characteristics of the tones in the Yong language, as spoken by three generations in Pa Bong Luang Village, Chiang Rai Province, Thailand. Nine female Yong speakers were divided into three groups; over 60 years old, 35-50 years old, and under 25 years old. A wordlist of Yong tones was recorded directly on to a computer. The fundamental frequencies were measured using Praat and then converted into semitones. The results showed that there are six tones in Yong, namely mid-rising tone, mid tone, low tone, high tone, mid-falling tone, and high-falling tone. The acoustic characteristics of the Yong tones that are spoken by three generations suggested that Yong tones are changing. The variations were found in the high tone. In the over-60 group, the high tone started at a high pitch and then fell sharply to a low pitch, whereas in the 30-50 group, the high tone began at a high pitch and fell sharply to a low pitch with a contour similar to the high-falling tone. In the under-25 group, the high tone had a high falling contour like the high-falling tone, and it also merged with the mid-falling tone. The variations and changes appear to be caused by language contact with Tai Yuan and Standard Thai, the majority language in Chiang Rai province, and the majority and official language in Thailand, respectively.

Keywords: Tone, variation, yong, language contact

Introduction

The Yong are an ethnic minority group Chiang Rai Province, Thailand. The Yong language belongs to the Tai branch in the Tai-Kadai language family. There are six tones in Yong that occur in non-checked syllables, namely the mid-rising tone, the mid-level tone, the low-level tone, the mid/low-level tone, the mid-falling tone, and the high-falling tone. For checked syllables, there are three tones which are allotones of the tones occurring in non-checked syllables, namely the mid-rising tone, the low-level tone, and the mid/low-level tone (Neamnark, 1985; Pankhuenkhat, 1988; Wangsai, 2007; Chaimano, 2009).

Japjainai and Jirananthanaporn (2012) found that the Yong that is spoken in Pa Bong Luang tends to be influenced by the other languages, especially Tai Yuan which is the majority language of Chiang Rai Province, as well as Standard Thai which is the official language of Thailand. All the Yong speakers are bilingual in Yong and Tai Yuan. Many of them, especially from the younger young generation can also speak Standard Thai very well. According to Prasithrathsinth (2002: 92), when bilinguals or multilinguals speak, their languages tend to influence each other, and this language contact situation leads to language variation and change.

Besides language contact, the difference in the language that is spoken by the different generations can also represent variations and changes (Soiyana, 2009; and Teeranon and Rungrojsuwan, 2009; Intajamornrak, 2011, 2012). This research therefore

aims to demonstrate tonal variation and change in the Yong language, as spoken by three generations of speakers. The results of the present study can be used to understand how the Yong tones have changed and what caused those changes.

Objective

This research aims to analyze and compare the tonal acoustic characteristics in the Yong language spoken, as spoken by three generations of speakers in Pa Bong Luang Village, Chiang Rai Province, Thailand.

Methodology

William J. Gedney's wordlist (1972) was used to check for mergers and splits of the tonal system. A wordlist of Yong tones was then directly recorded onto a computer. Nine female informants were divided into three groups: over 60 years old, 35-50 years old, and under 25 years old. The informants were asked at random to pronounce each test-word three times, with a three-to-five second break between each word. A total of 540 test tokens were produced (9 speakers x 20 words x 3 times).

Table 1
A Wordlist for Sound Recording

A	B	C	DL	DS
khă:* 'leg'	khà: 'galangal'	phâ: 'clothes'	(nâ:) phà:k 'forehead'	phàk 'vegetable'
ta: 'eye'	pà: 'forest'	pâ: 'aunt'	pà:k 'mouth'	pàk 'to stick on'
ba:n 'to bloom'	bà: 'shoulder'	bâ: 'insane'	bà:t 'to cut'	bàt 'card'
tha: 'to paint'	thâ: 'pier'	thá: 'to challenge'	thâ:k 'snails'	thák 'to greet'

*The tone marking appeared in the wordlist is Standard Thai tones.

The fundamental frequencies were measured at every 10% of normalized duration using Praat. The measured fundamental frequencies in hertz were converted into semitones values. The formula was as follows: semitones = 3.32 x 12 x Log (Hz to be translated / Hz reference level). This served to minimize the pronunciation variations between the three female speakers in each group.

Literature Reviews

Weinreich (1968: 3) clarifies that language contact is an external factor that brings about language change and variation. Of the extra-linguistic factors which must be considered in a language contact situation, some factors are inherent in the bilingual speakers they come into contact with, for example, the speaker's verbal expression facility in general and their ability to keep the two languages separate, their relative proficiency in each language, and specialization in the use of each topic and interlocutor. Moreover, Thomason (2001: 60) concluded that contact-induced change is varied terms of the types and degrees of the change, according to two predictors; social factors and linguistic factors. Social factors involve the contact intensity, the presence versus absence of imperfect learning, and the speaker's attitude. Linguistic factors include universal markedness, the degree to which features are integrated into the linguistic system, and typological distance between source and recipient languages.

Finding

The results from the present study show that there are six tones in the Yong spoken in Pa Bong Luang Village, namely the mid-rising tone (T.1), the mid tone (T.2), the low tone

(T.3), the high tone (T.4), the mid-falling tone (T.5), and the high-falling tone (T.6), as shown in Figure 1.

<table>
<tr><th>A</th><th>B</th><th>C</th><th>DL</th><th>DS</th></tr>
<tr><td>T.1 (mid-rising tone)</td><td rowspan="2">T.3 (low tone)</td><td rowspan="2">T.5 (mid-falling tone)</td><td rowspan="2">T.3 (low tone)</td><td rowspan="2">T.1 (mid-rising tone)</td></tr>
<tr><td rowspan="2">T.2 (mid tone)</td></tr>
<tr><td>T.4 (high tone)</td><td>T.6 (high-falling tone)</td><td colspan="2">T.4 (high tone)</td></tr>
</table>

Figure 1 The mergers and splits of the six Yong tones as appeared in the tone box

Figure 1 shows that there are six tones in non-checked syllables in the Yong spoken in Pa Bong Luang Village, Chiang Rai Province. The tones in checked syllables are allotones of the tones in non-checked syllables.

The over-60 group

For the non-checked syllables spoken by the over-60 group, the mid-rising tone (T.1) begins at a mid pitch and then sharply rises to a high pitch. The mid tone (T.2) starts at a mid pitch and remains level until the end. The low tone (T.3) begins at a low pitch and slightly falls to the end of the duration. The high tone (T.4) starts at a high pitch and stays level until the end. The mid-falling tone (T.5) begins at a mid/low pitch and then falls sharply to a low pitch. The high-falling tone (T.6) has the same contour as the mid-falling tone, although it starts at a higher pitch.

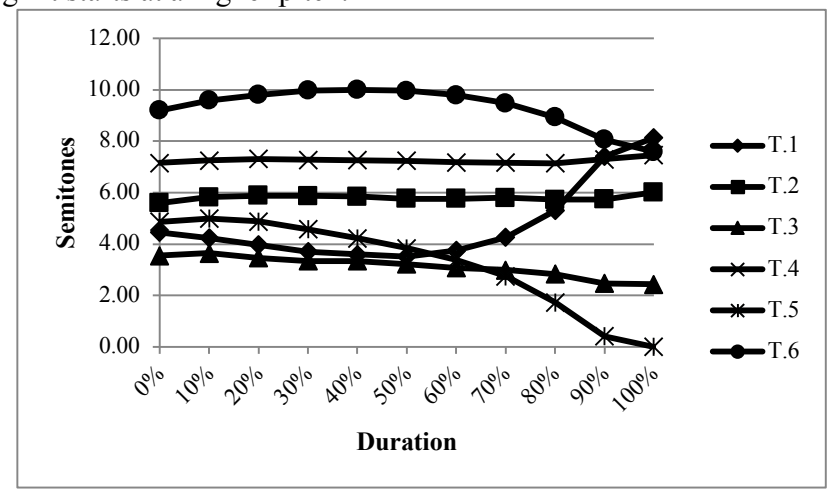

Figure 2 Semitones of Yong tones in non-checked syllables as spoken by the over-60 group (three speakers)

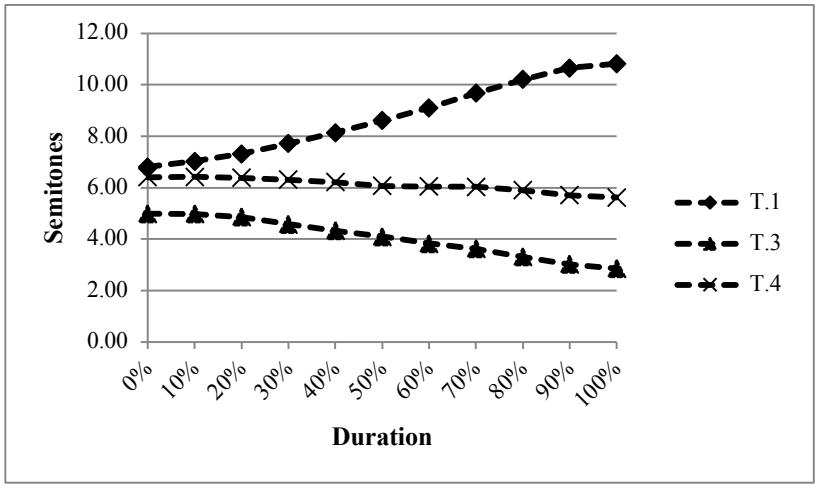

Figure 3 Semitones of Yong tones in checked syllables as spoken by the over-60 group (three speakers)

Figure 3 shows that there are three tones in checked syllables, namely the mid-rising tone (T.1), the low tone (T.3), and the high tone (T.4). The mid-rising tone and low tone behave similarly to the tones in non-checked syllables, but the high tone starts at the mid pitch and stays level until the end of the duration.

The 35-50 group

For the 30-50 group, the acoustic characteristics of the six tones in non-checked syllables are similar to those of the over-60 group, with the exception of the high tone (T.4) which behaves differently. Figures 4 and 5 show that there are two tonal patterns in non-checked syllables for the 30-50 group.

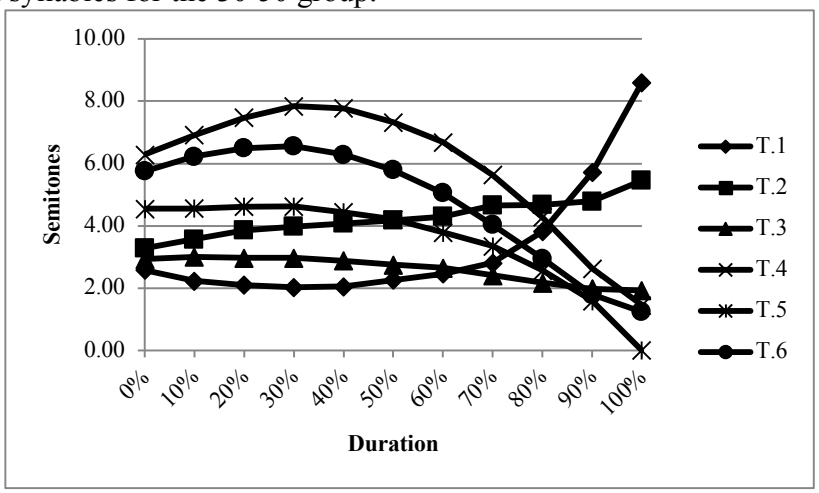

Figure 4 Semitones of Yong tones in non-checked syllables as spoken by the 35-50 group (Pattern 1)

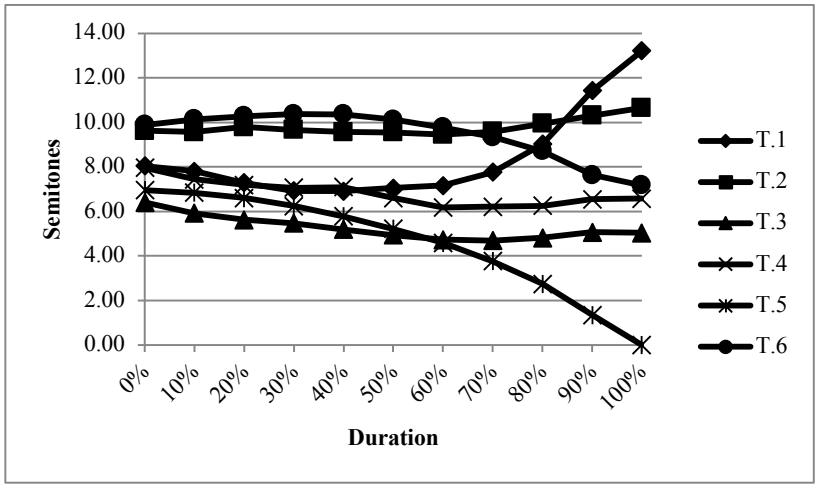

Figure 5 Semitones of Yong tones in non-checked syllables as spoken by the 35-50 group (Pattern 2)

In Pattern 1, Figure 4 shows that the high tone (T.4) of the 30-50 group starts at a high pitch and falls sharply to a low pitch, with a similar contour to the high-falling tone. Meanwhile, the acoustic characteristics of the other five tones (T.1, T.2, T.3, T.5, and T.6) are similar to those tones of the over-60 group. For Pattern 2 (Figure 5), it is noticeable that the mid tone (T.2) is higher than the high tone (T.4).

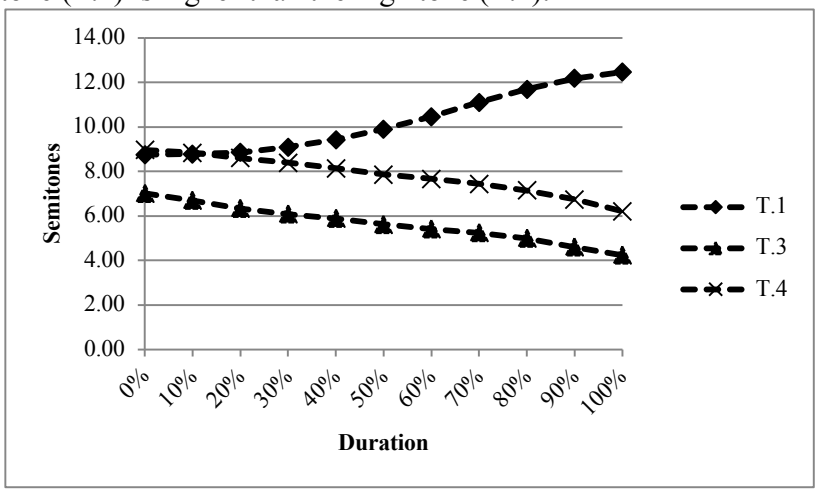

Figure 6 Semitones of Yong tones in checked syllables as spoken by the 35-50 group

There is only one tonal pattern for checked syllables. Figure 6 shows the acoustic characteristics of the three Yong tones in checked syllables, which are the mid-rising tone (T.1), the low tone (T.3), and the high tone (T.4).

The under-25 group

There is more variation in the acoustic characteristics of the six tones spoken by the under-25 group. Figures 7 and 8 show two tonal patterns in non-checked syllables.

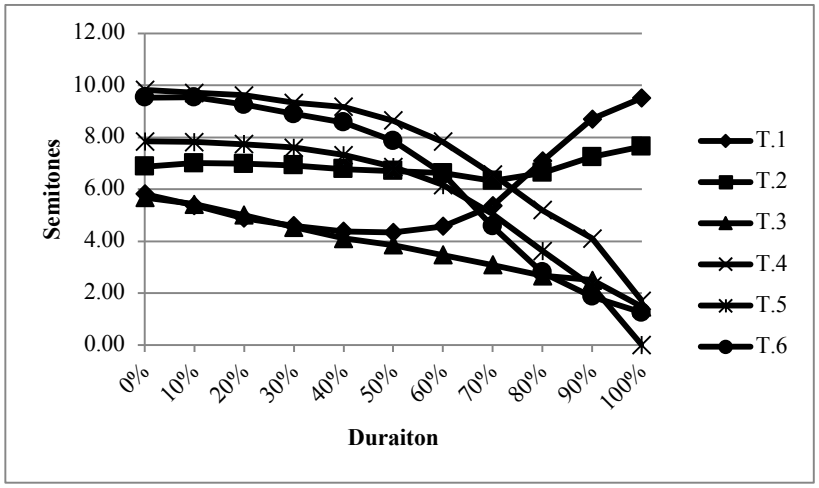

Figure 7 Semitones of Yong tones in non-checked syllables as spoken by the under-25 group (Pattern 1)

Figure 7 shows that there are six tones, but the high tone (T.4) starts at a high pitch and falls sharply to a low pitch with a similar contour to the high-falling tone (T.5). The mid-falling tone (T.5) starts at a mid/high pitch and falls to a low pitch. In the under-25 group, there are three falling contour tones occurring in Yong Pattern 1.

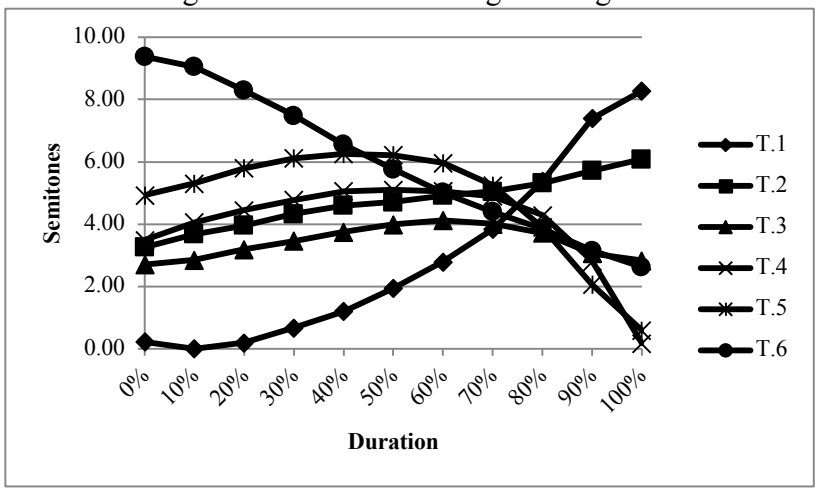

Figure 8 Semitones of Yong tones in non-checked syllables as spoken by the under-25 group (Pattern 2)

In Pattern 2, Figure 8 shows that the mid-rising tone starts at a low pitch and rises sharply to a high pitch. Moreover, the high tone (T.4) has a similar contour as the mid-falling tone (T.5), but with a higher pitch.

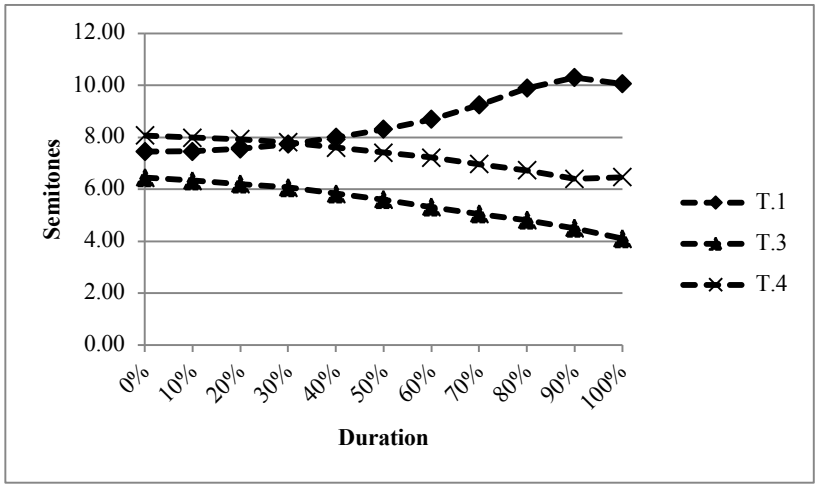

Figure 9 Semitones of Yong tones in checked syllables as spoken by the under-25 group

Figure 9 shows the acoustic characteristics of three Yong tones in checked syllables, which are the mid-rising tone (T.1), the low tone (T.3), and the high tone (T.4).

Discussion

The acoustic characteristics of the Yong tones in Pa Bong Luang Village spoken by the over-60 group are slightly different from the Yong tones found in previous studies, especially for non-checked syllables as shown in Table 2.

Table 2
Comparison of the Yong Tones in This Study and Previous Studies

		The over-60 group	Wangsai (2007)	Pankhuenkhat (1988)	Neamnark (1985)
A12	(T.1)	mid-rising	mid-high-rising	rising	mid-rising
A34	(T.2)	*mid level*	mid level	level-rising	mid level, mid-rising-falling
B123	(T.3)	low level	low level	low-rising	low-rising
B4	(T.4)	*high level*	mid-low-mid	low-falling	low level
C123	(T.5)	mid-falling	low-falling	falling-rising	mid-falling
C4	(T.6)	high-falling	mid-low-falling	high-falling	high-falling

Compared with previous studies, the acoustic characteristics of the high tone (T.4) is different from the other Yong dialects. The tone in the column B4 (T.4) of the Yong spoken in Pa Bong Luang Village starts at a higher pitch than the tone in the column A34 (T.2), while in the other dialects, the tone in the column B4 (T.4) begins at a lower pitch.

Based on the over-60 group, it is possible to suggest that there have been changes to the acoustic characteristics of the Yong tones. In the 35-50 group, the high tone (T.4) starts at a high pitch and falls sharply to a low pitch, with a similar contour to the high-falling tone. This acoustic characteristic is also found in the under-25 group and may be caused by the influence of the falling tone of Standard Thai and Tai Yuan.

Figure 10 shows that the tone in the column B4 (T.4) in Standard Thai and Chiang Rai Tai Yuan has a falling contour. It is possible that the acoustic characteristics of Standard Thai and Chiang Rai Tai Yuan Tone 4 (T.4) have resulted in changes to Tone 4 of the Yong language spoken in Pa Bong Luang Village. This explanation concurs with previous studies, for example Intajamornrak (2011, 2012) and Akharawatthanakun (2003), which found that Standard Thai and surrounding majority languages have caused language changes. Moreover, it appears that the younger generation is leading this evolving

linguistics situation, since they are able to speak Standard Thai very well and have more opportunities to speak Standard Thai than the older generations.

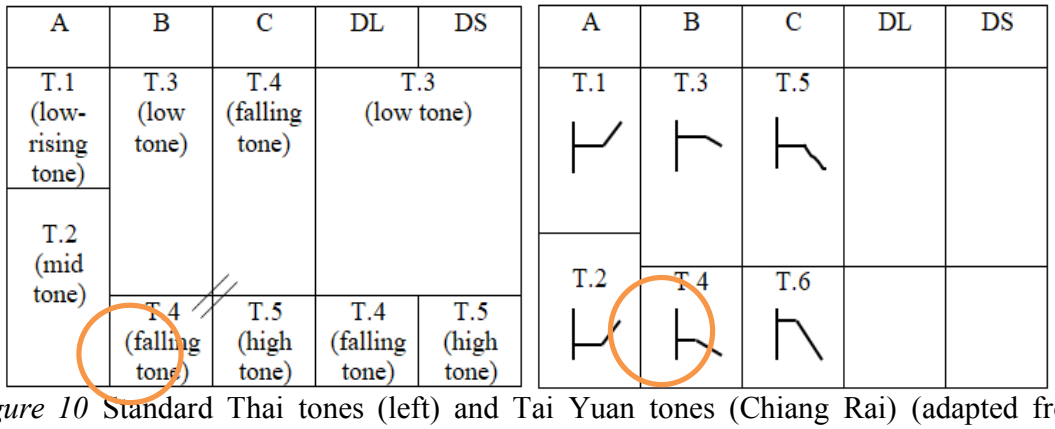

Figure 10 Standard Thai tones (left) and Tai Yuan tones (Chiang Rai) (adapted from Brown, 1965) (right)

Conclusion

In conclusion, there are six tones in the Yong language spoken in Pa Bong Luang Village, Chiang Rai Province, Thailand, namely the mid-rising tone, the mid tone, the low tone, the high tone, the mid-falling tone, and the high-falling tone. The variations of the six tones in non-checked and checked syllables spoken by the three generations are shown in Tables 3 and 4.

Table 3

The Acoustic Characteristics of the Yong tones in Non-Checked Syllables Spoken by Three Generations

	T.1	T.2	T.3	T.4	T.5	T.6
Over-60	mid-rising	mid	low	high	mid-falling	high-falling
35-50	mid-rising	mid high	low	*high-falling* mid	mid-falling	*high-falling*
Under-25	mid-rising low-rising	mid	low	*high-falling* mid-falling	mid-falling	*high-falling*

Table 4

The Acoustic Characteristics of the Yong tones in Checked Syllables Spoken by three Generations

	T.1	T.3	T.4
Over-60	mid-rising	low	mid/low
35-50	mid-rising	low	mid/low
Under-25	mid-rising	low	mid/low

The acoustic characteristics of the Yong tones that are spoken by three generations suggest that the Yong language in Pa Bong Luang Village is changing due to variations between the three groups. The variations and changes appear to be the result of language contact with the Tai Yuan and Standard Thai languages, the majority language of the province, and the majority and official languages of Thailand, respectively.

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