CHAPTER 6

The Differences between the Tay and Nung Languages in the Trang Dinh District of Lang Son Province

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[要旨/ABSTRACT]

　ベトナムのタイー語とヌン語は、中国の壮語南部方言とともに中央タイ語群に分類される（Li 1960）。ベトナム国内ではタイー族とヌン族はそれぞれ別の民族として認識されながら、言語面ではタイー語とヌン語は意思疎通が可能なほどに似通っていることから、タイー・ヌン語と総称して呼ばれることが一般的である。ランソン省チャンディン県におけるタイー語とヌン語を比較した結果、子音音素体系に大きな違いが見られない一方、母音音素体系に関してはタイー語が二重母音を持つのに対し、ヌン語は二重母音を持たないことがわかった。タイー語の二重母音音素はベトナム語に共通するものであり、壮語南部方言にはヌン語と同様に二重母音が存在しない方言が多い。語彙面では、タイー語よりもヌン語のほうが壮語南部方言の一つである龍茗方言（黄 2018）と同源語が多いことがわかった。龍茗方言と語源が異なるタイー語の語例には、ベトナム語の語彙との関連性が認められるものが複数見つかった。

1. Introduction

　　　The Tay and Nung peoples, who share the same ancestor as the Zhuang people in Southern China, are indicated to have started living in Vietnam during different periods[1]. The Tay people have lived in Vietnam for a long time and have a strong relationship with the Kinh (Viet) people. On the other hand, the Nung people recently moved to Vietnam and have been influenced by Chinese culture. The aim of this paper is to analyze the differences between the Tay and Nung languages in the Trang Dinh District and to indicate the relationship among the Tay and Nung languages in the Trang Dinh District, Vietnamese, and the Zhuang language, especially the Southern Zhuang dialect.

1.1 The state of the Tay and Nung languages

　　　The Tay and Nung languages are spoken in the northeastern part of Vietnam. Both languages belong to the Central Tai group of Tai languages (Li 1960). This

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[1] Ito (2003) claims that the generally accepted opinion is that the Nung people who now live in Vietnam moved to Vietnam about 200 years ago. However, according to her research, it is clear that the period during which the Nung people moved to Vietnam has a wide range, and we cannot assert that they moved to Vietnam 200 years ago (p.16).

paper discusses the Tay and Nung languages in the Trang Dinh District of the Lang Son Province.

Tay and Nung are so similar to each other that speakers of each can communicate with one another. According to Ito (2003), the proportion of interethnic marriage between Tay and Nung people has been increasing from the generation born in the 1950s (p.253). In Vietnam, the two languages are usually generically called the "Tay-Nung language" except for when only one of them is pointed out based on the self-proclaimed ethnic group name of the speaker. According to the General Statistics Office of Vietnam (2009), the population of Tay people is as large as 1,626,392 people, and the Nung people population is as large as 968,000 people. No statistical information exists on the population of Tay and Nung language speakers, but the proportion of people who cannot speak Tay and Nung is increasing rapidly, mainly among the young generation. We can expect the actual population of Tay and Nung language speakers to be much smaller than the populations of Tay and Nung people.

Several subgroups among the Nung people exist: Nung Phan Slinh, Nung Inh, Nung An, Nung Loi, Nung Quy Rin, Nung Chao, and Nung Tung Slin (Fan 1989:163). Nung Chao, Nung An, and Nung Phan Slinh live in the Trang Dinh District. Nung Chao amounts to more than 90 % of the Nung people in Trang Dinh (Phan & Khổng eds. 1999).

1.2 The data of this study

A Tay male speaker and a Nung male speaker, both of whom were born in the Trang Dinh District of Lang Son Province in 1962, provided all of the data below. The Tay informant is the 15th generation of his clan. His clan is of Kinh origin[2]. He lives by himself. He sometimes talks with his colleagues in the Tay language. The Nung informant belongs to Nung Chao. He is the fourth generation of his clan. He usually speaks the Nung language and Vietnamese at home.

The research was conducted using the *Toonan ajia tairikubu gengo choosahyoo* (*Kambojiago, Laosugo, Taigo, Betonamugo) [The Questionnaire of South-East Asia Languages (Cambodian, Laotian, Thai, Vietnamese)]* (Ueda ed. 2003), which Tokyo University of Foreign Studies published (about 1000 words). This paper analyzes the words to which both informants responded (668 words). Figure 1 shows the location of Lang Son Province, and Figure 2 shows the location of the Trang Dinh District.

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[2] According to Ito (2003), many Tay people claim that the origin of their clan is Kinh (p.73). Kinh people (Viet people) make up the largest ethnic group in Vietnam.

Figure 1: The map of Vietnam (the black area is Lang Son Province).

Figure 2: The map of Lang Son Province (adapted from <http://www.langson.gov.vn>; the circled spot is the Trang Dinh District).

2. Syllable structure

The syllable structure of Tay and Nung is shown in (1) below.

(1) $C_1(C_2)V(C_3)/T$

3. Consonants

The consonants of Tay and Nung are shown in Table 1. No difference exists in the acoustic features of the consonants of Tay and Nung.

Table 1: Consonants of the Tay and Nung languages

	(labial)	(dental)	(palatal)	(velar)	(glottal)
(voiceless plosive)	p	t		k	ʔ
(implosive)	b[ɓ]	d[ɗ]			
(aspirated)	p^h	t^h		k^h	
(affricate)			tɕ		
(nasal)	m	n	ɲ	ŋ	
(voiceless fricative)	f	s			h
(voiced fricative)	v	z			
(lateral)		l			
(approximant)	w		j	ɰ	
(lateral fricative)		ɬ			

3.1 C_1

The consonants except for approximant ones can occur as C_1. These consonants correspond to the initial consonants of the common Tay-Nung language that Doan Thien Thuat represents (1996:65). (2) shows the consonants that can occur as C_1.

(2)   p, t, k, ʔ, b, d, p^h, t^h, k^h, tɕ, m, n, ɲ, ŋ, f, s, h, v, z, l, ɬ

3.2 C_2

The consonants in (3) can occur as C_2.

(3)   w, j

The consonant combination patterns of Tay and Nung are shown in (4) below.

(4)   kw, k^hw, ŋw, pj, p^hj, bj, mj

3.3 C_3

The consonants in (5) can occur as C_3.

(5)   p, t, k, m, n, ŋ, w, j, ɰ

4. Vowels

The vowel systems of Tay and Nung are different in two respects: (a) the

number of pairs of short and long vowels, and (b) whether the language has diphthongs or not. Tay distinguishes vowel length only in /ă, a/ and has three diphthongs: /iə, ɯə, uə/. Tay speakers pronounce /i, ɯ, u, e, o/ as long vowels in open syllables and as short vowels in closed syllables. Tay speakers always pronounce /ɛ, ɔ/ as long vowels. /ɔ̆/ appears only in closed syllables and is pronounced short. The vowels of Tay are shown in (6).

(6)   Vowels of Tay
        Simple vowels
        i   ɯ   u
        e   ɔ̆   o
        ɛ   ă/a   ɔ

        Diphthongs
        iə   ɯə   uə

Nung distinguishes vowel length in /ĭ, i/, /ŭ, u/, /ɔ̆, ə/, /ă, a/. /ɯ, e, o/, which are pronounced as long vowels in open syllables and are pronounced as short vowels in closed syllables. /ɛ, ɔ/ appear only in closed syllables and are always pronounced long. No diphthong can be found in Nung except for in loanwords.

(7)   Vowels of Nung
        ĭ/i   ɯ   ŭ/u
        e   ɔ̆/ə   o
        ɛ   ă/a   ɔ

Through the comparison of (6) and (7), we can see that Tay has diphthongs /iə, ɯə, uə/. However, Nung does not have diphthongs. Doan Thien Thuat (1996) indicates that many dialects of Nung do not have diphthongs (p.82). Zhuang dialects, such as the Leiping, Tiandeng[3], Longchow, and Pingxiang dialects represented by Gedney (Hudak 2008) and the Longming dialect represented by Huang (2018), do not have diphthongs. All of these dialects belong to Southern Zhuang, which is categorized as being in the Central Tai group, like the Tay and Nung languages[4]. Southern Zhuang is more similar to Nung than to Tay with respect to the vowel system. The vowel system of Longming Zhuang that Huang (2018) represents is shown in (8) as an example of Southern Zhuang.

(8)   Vowel system of the Longming dialect (Huang 2018:60)
        i/iː   ɯː   u/uː
        eː   ɤ/ɤː   o/oː
                a/aː

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[3] The Lungming dialect that Gedney represents is called the Tiandeng dialect in this paper to make it easier to distinguish between the Lungming dialect that Gedney represents and the Longming dialect that Huang (2018) represents.

[4] According to the classification by Li (1960), Southern Zhuang, Tay, and Nung belong to the Central Tai group, and the northern Zhuang dialect belongs to the Northern Tai group.

5. Tones

Tay and Nung have six tones as shown in (9) below. Checked syllables can have tones 3 and 4.

(9)   1: mid level [33] ma^1 (dog)
       2: falling [32] ma^2 (to come)
       3: high rising [35] ma^3 (to soak), mak^3 (fruit)
       4: low level [11] ma^4 (numb), mak^4 (classifier for tools)
       5: low rising [213] ma^5 (tomb: Tay language[5]), na^5 (face)
       6: glottalized [32ʔ] ma^6 (horse)

[ʔ] in tone 6 is not a C_3. It might be deemed a C_3 when it occurs in open syllables. However, tone 6 can also occur in closed syllables, and the syllable structure would be complicated if [ʔ] is thought to be a C_3.

Table 2 shows the correspondence between the tones shown in (9) and the Proto-Tai tones. Some Central Tai languages distinguish between vowel lengths if syllables have tone D, although Tay and Nung do not.

Table 2: The correspondence of the tones among Tay, Nung, and Proto-Tai

	*A	*B	*C	*DS/DL
aspirated *f-, *hm-, *ph-, …	1	3	5	3
unaspirated *p-, …				
improsive/glottal *ɓ-, *ɗ-, *ʔ-...				
voiced *v-, *m-, *b-, …	2	4	6	4

6. Rhymes

Although Tay and Nung correspond well with each other with respect to consonants and tones, they differ from each other with respect to the number of pairs of short and long vowels, as well as the existence of diphthongs. As Table 3 and Table 4 show, the rhyme patterns are slightly different between the Tay and Nung.

Table 3: The rhymes of Tay

V \ C₃	ø	-p	-t	-k	-m	-n	-ŋ	-w	-j	-ɯ
i	+	+	+	+	+	+	+	+	-	-
e	-	+	+	+	+	-	+	-	-	-
ɛ	+	+	+	+	+	+	+	+	-	-

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[5] "Tomb" is /fǎn²/ in Nung.

	ø	-p	-t	-k	-m	-n	-ŋ	-w	-j	-ɰ
ɯ	+	-	+	-	-	+	+	-	-	-
ɤ̆	-	+	+	+	+	+	+	+	+	+
ă	-	+	+	+	+	+	+	+	+	-
a	+	+	+	+	+	+	+	+	+	-
u	+	+	+	+	+	+	+	-	-	-
o	-	+	+	+	+	+	+	-	-	-
ɔ	+	+	+	+	+	+	+	-	+	-
iə	+	+	+	+	+	+	+	+	-	-
ɯə	+	-	+	+	+	+	+	-	+	-
uə	+	-	-	+	-	+	+	-	+	-

Table 4: The rhymes of Nung

C₃ ⟍ V	ø	-p	-t	-k	-m	-n	-ŋ	-w	-j	-ɰ
ĭ	-	+	+	+	+	+	+	+	-	-
i	+	+	+	+	+	+	+	-	-	-
e	+	+	+	+	+	+	-	-	-	-
ɛ	-	+	+	+	+	+	+	+	-	-
ɯ	+	-	-	+	-	+	+	-	-	-
ɤ̆	-	-	+	+	+	+	+	-	-	-
ə	-	+	+	+	+	+	+	-	+	-
ă	-	+	+	+	+	+	+	+	+	+
a	+	+	+	+	+	+	+	+	+	-
ŭ	-	+	+	+	+	+	+	-	-	-
u	+	+	+	+	+	+	+	-	+	-
o	+	+	-	+	+	-	+	-	+	-
ɔ	-	+	+	+	+	+	+	-	+	-

Comparing Table 3 and Table 4, we can see that /e, o/ cannot occur in open syllables, but /ɛ, ɔ/ can occur in Tay. On the other hand, in Nung, /e, o/ can occur in open syllables, but /ɛ, ɔ/ cannot. Moreover, we can also see that only /ɤ̆/ can occur with /-ɰ/ in Tay, however, only /ă/ can occur with /-ɰ/ in Nung.

7. Sound correspondences between Tay and Nung

In the list of the 668 words to which both Tay and Nung informants responded, 327 words have the same meanings but different forms in each language. Some of them have sound correspondence between the two languages. Two types of correspondence exist: (a) regular correspondence, which has few exceptions, and (b) irregular correspondence as a mild tendency.

7.1 Regular correspondences

The correspondences between Tay and Nung in Table 5 have few exceptions. As shown in Table 3 and Table 4, Tay and Nung have different restrictions in rhyme patterns from each other. These correspondences (Table 5) relate to the difference in the restrictions of rhyme patterns in the two languages. The correspondence of /uə/-/u/ (the left is Tay, and the right is Nung, the same

hereafter) has an exception ($/ɬuə^1/$-$/ɬɯ^1/$: to lose). This exception seems to be related to the lexical difference. We discuss this further in Section 8.

Table 5: Regular correspondences between the Tay and Nung languages

Tay	Nung	Circumstance	Example
ɛ	e	_#	$k^hɛ^1$-k^he^1 (rope)
ɔ	o	_#	$pɔ^2$-po^2 (mountain)
ə̆	ă	_ {j, w, ɰ}	$pə̆j^1$-$păj^1$ (to go) $mjəw^2$-$mjaw^2$ (betel) $bə̆ɰ^1$-$băɰ^1$ (leaf)
iə	ĭ	_w	$liəw^4$-$lĭw^4$ (to play)
iə	i	other than that above	$tɕiə^5$-$tɕi^5$ (paper) $kiəŋ^3$-$kiŋ^3$ (mirror)
ɯə	ə	_C	$pɯək^3$-$pək^3$ (skin)
ɯə	ɯ	_#	$ɬɯə^5$-$ɬɯ^5$ (trousers)
uə	u		$tuə^1$-tu^1 (classifier for animals) $puən^2$-pun^2 (to bury)

7.2 Irregular correspondences

The correspondences in 7.1 are strong and have few exceptions. The irregular correspondences as a mild tendency can be found in C_1, V, C_3, and rhyme.

7.2.1 Irregular correspondences of C_1

With the correspondences in C_1, the tendency is for non-aspirated consonants of Tay correspond to aspirated consonants of Nung. These correspondences are not absolute. Both Tay and Nung have aspirated C_1 and non-aspirated C_1 as shown in 3.1.

Table 6: Irregular correspondences of C_1 between Tay (non-aspirated) and Nung (aspirated)

Tay	Nung	Example
p	p^h	$pɛŋ^2$-$p^hɛŋ^4$ (to put)
t	t^h	tap^4-t^hap^4 (to step on)
k	k^h	kam^5-$k^hăm^4$ (night)
s	t^h	sam^1-t^ham^1 (to ask)

Some more correspondence patterns are present in Table 7. These correspondences are found to be rarer than the correspondences in Table 6.

Table 7: Irregular correspondences of C_1 between Tay and Nung

Tay	Nung	Example
t^h	p^h	t^hak^3-p^hjak^3 (to expose to the sun)

	h	tʰa¹-ha¹ (eye)
t	tɕ	tɤɯ²-tɕăɯ² (where)
tɕ	s	tɕɯɯək³-sək³ (to melt)
s	h	pik³ su¹-pi³ hu¹ (ear)
z	ɬ	zăk⁴-ɬăk⁴ (to wash clothes)
n	ŋ	nɤw²-ŋăw² (to rot)
ŋ	ɲ	ŋɔm⁴-ɲɔm⁴ (to look at)
l	t	laj³-taj⁶ (pull)
	d	lɤk⁴-dăk³ (deep)
ɬ	v	ɬɛ⁵-ve⁴ (to write)
	tɕ	kʰɤw⁵ ɬan¹-kʰăw⁵ tɕam¹ (non-glutinous rice)

7.2.2 Irregular correspondences of V

Some examples of /ɤ/ in Tay correspond to the other vowels in Nung, but they are not absolute correspondences. These correspondences are not related to the rhyme pattern restrictions in the two languages. They cannot be defined by the circumstances in which these correspondences occur. Table 8 shows some examples.

Table 8: Vowels in Nung corresponding to /ɤ/ in Tay

Tay	Nung	Example
ɤ	ĭ	pʰɤt³-pʰit³ (spicy)
	e	tɕɤt³-tɕet³ (seven)
	ă	ɬɤt⁴-ɬăt⁴ (to cut)
	ɯ	tɤk⁴-tɯk⁴ (male animal)
	ŭ	tɤp⁴ ɬɔk³- tŭk⁴ ɬɔk³ (elbow)

In addition, other correspondences as shown in Table 9 are found. The example of /o/-/ŭ/ can be found more frequently than /u/-/o/ can.

Table 9: Irregular correspondences of V between Tay and Nung

Tay	Nung	Example
u	o	lum²-lom² (to forget)
e	ĭ	tem¹-tĭm¹ (full)
o	ŭ	mok³-mŭk³ (stomach)
ɔ	u	ʔɔn³-ʔun³ (warm)
ă	ɤ	văm⁶- vɤm⁶ (mute)

| ɯ | ə̆ | mɯɯn²-mə̆n⁴ (dust) |
| uə | ɯ | ɬuə¹-ɬɯ¹ (to lose) |

7.2.3 Irregular correspondences of C₃

The correspondences in C_3 are mainly related to the manner of articulation, although they have a few exceptions, such as /ŋ/-/k/. As in 7.2.1 and 7.2.2, these correspondences are not absolute. Moreover, the correspondences in C_3 are found to be rarer than the correspondences of and V are. Table 10 provides some examples.

Table 10: Irregular correspondences in C₃ between Tay and Nung

Tay	Nung	Example
p	k	tə̆p⁴ɬɔk³-tŭk⁴ ɬɔk³ (elbow)
k	p	tăk³-tăp³ (liver)
m	ŋ	pom¹-pŭŋ² (hot)
n	m	tɕam⁴-sam⁴ (plate)
	ŋ	pʰun¹–pʰŭŋ¹ (to patch up clothes)
ŋ	k	pjɔŋ³-pjɔk³ (ring)
	n	tiŋ³-tĭn³ (to wake up)

7.2.4 Irregular correspondences of rhyme

The correspondences in Table 11 are the correspondences between different syllable structures. They are rarely found.

Table 11: Irregular correspondences in rhyme between Tay and Nung

Tay	Nung	Example
ik	i	pik³ su¹-pi³ hu¹ (ear)
a	aŋ	tʰa⁵-tʰaŋ⁵ (to wait)
u	ăw	mu²-măw⁴ (hat)

8. Lexical difference

This section compares Tay and Nung words with Southern Zhuang dialect words. Tay and Nung examples here cannot be explained by the sound correspondence, such as in 7.1-7.2.3. The Longming dialect of the Zhuang language by Huang (2018) is quoted as an example of Southern Zhuang. The Proto-Tai form by Pittayaporn (2009) is also quoted for reference. The blank cells in the following tables mean that Pittayaporn (2009) did not show the Proto-Tai form. A total of 116 words in the author's data cannot be explained as sound correspondences in 7.1-7.2.3, and 43 of them can be found as having the same meaning words in the Longming dialect of the Zhuang language by Huang (2018). The 43 words are considered here.

Table 12 shows the words that have strong similarity between Tay and Southern Zhuang. Four examples have been found in our data. They show that Tay and Longming Zhuang have cognates with each other.

Table 12: Similar words between Tay and Longming Zhuang

Meaning	Tay	Nung	L. Zhuang[6]	Proto-Tai
1. head	huə[1]	băw[5]	tʰu:[A1]	*truə[A]
				*kraw[C]
2. thunder	fa[6] dăŋ[1]	fa[6] tăw[5]	fa:[C] ɗa:ŋ[A2]	*pra:[C]
3. to fall	lom[6]	lăn[4]	lɤm[C]	*lɤm[C]
				*ʰlɤn[B] (to fall down)
4. tomb	ma[5]	făn[2]	mo:[B2]	

Concerning Example 1 ("head"), Pittayaporn (2009) shows that Proto-Tai has two types of words meaning "head": *truə[A] and *kraw[C]. "head" in Tay and "head" in Longming Zhuang are cognates with each other, and they correspond to truə[A] in Proto-Tai. Meanwhile, /băw5/ in Nung corresponds to kraw[C] in Proto-Tai[7].

Table 13 shows similar words between Nung and Longming Zhuang. 24 examples have been found in our data.

Table 13: Similar words between Nung and Longming Zhuang

Meaning	Tay	Nung	L. Zhuang	Proto-Tai
5. road	taŋ[2]	lo[4]	lo[B2]	*ʰwɤn[A]
6. ash	tɤ̆w[2]	pʰjăw[4]	pjaw[B2]	*daw[B]
				*praw[B] (leaf ashes)
7. to sow	ʔɔj[3]	văn[3]	ɗwan[B1]	*C̬wa:l[B]
8. to cut (weeds)	tan[1]	fat[4]	tjat[DS1]	*tac[D]
9. rice cake	pɛŋ[5]	tɕi[2]	ji:[A2]	
10. to wave, to swing	kwăt[3]	păt[3]	pat[DS2]	
11. to scratch	kom[2]	kăw[2]	kʰaw[C]	*kaw[A]
12. comb	mak[4] łaŋ[1]	mak[4] vi[1]	vɤj[A1]	*ʰrwɯ:j[A]

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[6] Huang (2018) claims that Longming Zhuang has 10 tones: five tones in open syllables and closed syllables (A1[45], A2[31], B1[251], B2[33] C[213]), and five tones in checked syllables (DS1'[45], DS1[33], DS2[31], DL1[25], DL2[33]).

[7] Nung has the word /hu[1]/, meaning "beginning (year, month), the end of the thread." Although /hu[1]/ in Nung does not have the meaning "head" as a part of the body, it can be supposed to have a relation with /huə[1]/ in Tay and /tʰu:[A1]/ in Longming Zhuang.

13. table	ŋɛ³ ban²	ŋe³ tɕɔŋ²	tɕo:ŋ^{A2}	
14. bowl	pat³	tʰuj⁵	tʰu:j^C	
15. dry season	ɬi² kʰɔ̆ɯ³	ɬi² lɛŋ⁶	le:ŋ^C	*Ç.le:ŋ^C
16. yesterday	văn² ŋwa²	văn² va²	va:^{A2}	*ŋwa:^{A}
17. cold	kăt³	daŋ⁵	ɗa:ŋ^C	
18. to walk	pɔ̆j¹ kʰa¹	pʰjaj⁵ kʰa¹	pʰja:j^C	*pra:j^C
19. hoe	mak⁴ kăw²	mak⁴ kuk³	ku:k^{DL1}	
20. to remember	tɕɯ³	ki³	kɤj^{B1} ɗaj^{A2}	
21. bad smell	kʰɯn³	kʰĭw¹	kʰi:w^{A1}	
22. to speak	puəj³	tɕaŋ⁵	ka:ŋ^C	
23. to laugh	kʰuə¹	hu¹	ðu:^{A1}	*krɯəw^A
24. to smoke	tɕup³	dut³	ɗwat^{DS1}	
25. to burst	pʰaw¹	pʰɛk³	pʰe:k^{DS1}	*p.re:k^D
26. to hide	ŋɔ²	zo²	jo:^{A2}	
27. to meet	tɕɔ̆p⁴	pʰŭŋ³	pʰʊŋ^C	
28. ancestor	da:m⁵ kɛ³	kŭk³ tɕo⁵	kɔŋ^{A1} tɕo:^{C}	

Comparing Table 12 and Table 13, we can see that Longming Zhuang has more cognates with Nung than Tay. As shown in Section 4, it is expected that Longming Zhuang is more related to Nung than Tay is with respect to the existence of diphthongs. We can see that Nung has a deeper relationship with Longming Zhoang than Tay does with respect to phonology and vocabulary.

Concerning Example 15 ("dry season") and Example 18 ("to walk"), Tay expresses these meanings by putting basic words, such as /kʰɔ̆ɯ³/ ("dry") and /pɔ̆j¹/ ("to go") together; on the other hand, Nung uses special words, such as /lɛŋ⁶/ and /pʰjaj⁵/, to express the meanings of "dry season" and "to walk." In Example 15, /ɬi²/ in Tay and Nung means "time, period." Nung also has the word /kʰăɯ³/, which means "dry," but /lɛŋ⁶/ is used to express "dry season." Thus, Tay does not have a special word to express "dry season," such as /lɛŋ⁶/ in Nung. In Example 18, /pɔ̆j¹/ in Tay means "to go," and /kʰa¹/ means "foot." Longming Zhuang and Proto-Tai have words that correspond to /pɔ̆j¹/ in Tay. They are [pɤj^{A1}] and *paj^A, respectively. They do not mean "to walk." /pɔ̆j¹ kʰa¹/ in Tay (i.e., "to go・foot") means "to walk," such as in Example 18.

Example 15 and 18 also show the relation between Tay and Vietnamese with respect to the word structure. As above, /ɬi² kʰɔ̆ɯ³/ ("period・dry") means "dry season" in Tay. In Vietnamese, "mùa khô", ("season・dry") means "dry season," and "đi bộ" means "to walk." "đi" is "to go," and "bộ" is the Sino-Vietnamese reading of "步" ("walking, the number of steps"). "bộ" usually needs to occur with "đi" in the case of expressing "to walk." Both Tay and Vietnamese use "to go" to express "to walk."

Some other examples in Table 13 and some examples of irregular sound correspondences in Section 7 show the relation between Tay and Vietnamese. Table 14 shows such examples again with Vietnamese corresponding words.

Table 14: Similar words between Tay and Vietnamese

Meaning	Tay	Vietnamese	Nung	L. Zhuang
to lose (from Table 9)	ɬuə¹	thua	ɬɯ¹	θɤɯ^A
hat (from Table 11)	mu²	mũ	măw⁴	ma:w^{B2}
5. road	taŋ²	đường	lo⁴	lo^{B2}
9. rice cake	pɛŋ⁵	bánh	tɕi²	ji:^{A2}
13. table	ŋɛ³ ban²	bàn	ŋe³ tɕɔŋ²	tɕo:ŋ^{A2}
14. bowl	pat³	bát	tʰuj⁵	tʰu:j^C
15. dry season	ɬi² kʰɔ̃ɯ³	mùa khô	ɬi² lɛŋ⁶	le:ŋ^C
18. to walk	pɔ̃j¹ kʰa¹	đi bộ	pʰjaj⁵ kʰa¹	pʰja:j^C

The example of "to lose" is already referred to as the exception of the regular correspondence of /uə/-/u/ and the irregular sound correspondence of V. [θɤɯ^{A1}] means "to lose" in Longming Zhuang. It seems that Nung /ɬɯ¹/ and Longming Zhuang [θɤɯ^{A1}] are related to each other because [ɤɯ] usually corresponds to /ɯ/ in Tay and Nung. On the other hand, /ɬuə¹/ in Tay seems to have relevance to "thua" ("to lose") in Vietnamese. Although /uə/-/u/ is one of the regular correspondences between Tay and Nung, it seems that /ɬɯ¹/ in Nung and /ɬuə¹/ in Tay do not exhibit this correspondence because they are derived from different words.

Concerning the example of "hat," [ma:w^{B2}] means "hat" in Longming Zhuang. The tone of "mũ" ([3ʔ5]) in Vietnamese does not exist in Tay. This Vietnamese tone usually corresponds to a falling tone or a low level tone in Tay (and Nung). This example indicates the relation between Tay and Vietnamese, as well as Nung and Longming Zhuang, respectively.

Concerning Example 5 ("road"), Example 9 ("rice cake"), and Example 14 ("bowl"), it has been pointed out that sound changes, such as *p->b- and *t->d- occurred in Vietnamese history (Haudricourt 1954, Nguyễn Tài Cẩn 1995, Trần Trí Dõi 2005). Thus, the Tay examples are very similar to the old Vietnamese form.

What we have to note here is that we cannot conclude whether the Tay and Vietnamese examples in Table 14 are Tai origins or Mon-Khmer origins, and which language borrowed these words from which language. Maspero (1912) suggests that Vietnamese vocabulary not only has Mon-Khmer origins but also has Tai origins. However, at least it is assumed that the resemblance of Tay and Vietnamese in Table 14 is the result of contact between the two languages.

Furthermore, the two languages have a relationship with respect to phonology; both of them have diphthongs. As shown in Section 4, Tay has diphthongs /iə, ɯə, uə/, as does Vietnamese. Tay and Vietnamese correlate with each other with respect to vocabulary and phonology.

Table 15 shows examples where the Tay and Nung languages have similarities with Southern Zhuang. Five examples have been found in our data.

Table 15: Tay and Nung words similar to Longming Zhuang

Meaning	Tay	Nung	L. Zhuang	Proto-Tai
29. to fall	tom³	taw⁵	lɤmᶜ	
			tawᴮ¹	
30. to cook (rice)	huŋ¹	tɕɯ⁵	ðuːŋᴬ²	*truŋᴬ
			tɕɤɯᶜ (to boil for a short time)	
31. father	pɔ¹	pa¹	poːᴮ²	*boːᴮ
			paːᴬ¹	
32. louse	ɬə̆j²	mĭn²	mɪnᴬ² (body louse)	*m.lelᴬ
			ɣajᴬ² kajᴮ¹ (chicken louse)	*rwɤjᴬ
33. word, letter	tɕɯ²	si⁴	tɕiːᴮ² θɤɯᴬ¹	

Except for Example 33 ("word, letter"), Longming Zhuang has two words that have the same or similar meanings, and Tay and Nung correspond to each of them as shown in Table 15.

Concerning Example 31 ("father"), Huang (2018) shows that [paːᴬ¹] is a loanword from Chinese (p.230). Although it is not clear when the Longming Zhuang borrowed this word, it is presumed that the difference between Tay and Nung in Example 31 was created because the two languages were divided from the Zhuang language during different periods, or Nung borrowed it from Chinese directly.

Table 16 provides examples of both Tay and Nung not having similarity to Longming Zhuang.

Table 16: Tay and Nung words that are not similar to Longming Zhuang

Meaning	Tay	Nung	L. Zhuang	Proto-Tai
34. chili	mak³ pʰət³	mak³ tɕĭw¹	tɕʊkᴰˢ¹ keːwᴬ¹	
35. angry	het³ ɬaj⁶	ɬĭŋ³	hɤjᴮ¹ ɗanᴮ¹	
			kɪkᴰˢ¹	
36. to stand	zoŋ²	măj²	ɟinᴬ²	Ç.ɟɯːnᶜ
37. scar	ɬɔj² tɕep³	ʔi³ tɕep³	baːtᴰᴸ¹	*baːtᴰ
38. to pull	laj³	taj⁶	laːkᴰᴸ²	*Ç.laːkᴰ
39. to fold	tɔk⁴	nop⁴	papᴰˢ²	*bapᴰ

40. to wipe	sit[3]	mat[4]	tɕat[DS2]	*ɟet[D]
41. to stir	tiəw[2]	kwăj[5]	tɕa:p[DL1]	
42. to light a fire	tiəm[5]	tɕɔt[3]	ko:[B1]	*ko:[B] (to build)
43. hoe	mak[4] ɬăŋ[5] toŋ[1]	mak[4] baj[1]	tʰaj[A1]	*crwaj[A]

Concerning Example 34 ("chili"), although it seems that no relation exists among Tay, Nung, and Longming Zhuang, according to Xie (2007), "chili" is "lat[22]ʧ̇ĩu[52]" in Pinghua in Chongzuo city in Guangxi, which is a Southern Zhuang area. Moreover, other Chinese dialects in Guangxi also have resembling forms meaning "chili" (pp.1202-1203). Although no relation exists among the three languages in this example, it shows the deep relation between the Nung and Chinese dialects. Further consideration of not only the Zhuang language but also other neighboring languages, such as Chinese dialects, is needed to analyze the words, such as in Table 16.

9. Conclusion

Tay, Nung, and Zhuang peoples have the same ancestor, and it has been proposed that Tay people have been in Vietnam for a long time, whereas Nung people moved to Vietnam relatively recently. From the aspect of language, this paper has demonstrated that Tay in the Trang Dinh District has a deeper relation to Vietnamese, whereas Nung in the Trang Dinh District has a deeper relation to Zhuang.

From the phonological aspect, Tay and Nung are not very different in terms of consonants and tones. However, the vowel system of Tay has diphthongs, and Nung does not. The diphthongs of Tay are the same as those in Vietnamese. On the other hand, Southern Zhuang also does not have diphthongs, such as Nung. The rhyme patterns of the Tay and Nung languages are different, and the strong sound correspondence is related to this rhyme pattern distinction. In addition, the two languages have irregular correspondences, which are not related to the restriction of rhyme.

From the aspect of vocabulary, Nung and Longming Zhuang have more corresponding words compared with Tay and Lomgming Zhuang. However, some examples show the relation between Tay and Vietnamese. Although the number of examples considered here is few, they show a certain tendency.

Acknowledgement

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