CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This section presents a review of the literature related to this research. Tai languages are spoken by millions of people. These languages are widespread in China, Myanmar, Vietnam, Laos and Thailand. However, these languages are all related linguistically and historically. Tai speakers have been classified according to many categories, including dialect relationships, geographical locations, literacy vs. non literacy, lowland vs. upland and types of sociopolitical institutions indicative of their divergent historical development (Lebar 1964).

2.1 Proto-Tai (PT) Tone Boxes

Tai is a tonal language. Tone is a useful framework for determining dialect boundaries within the Tai speaking languages. Gedney (1972:434) developed a checklist to determine tone relationships to discover the structure of tonal systems in Tai languages. The tone box is developed on the basis of the comparative reconstruction of Proto-Tai. The tone box provides evidence for the relationship between the initial consonants and the tones. Gedney's checklist includes a system of three tones on open or smooth syllables, which are presented as A, B and C. Tone A correlates with those in Central Thai that are written without a tone marker, tone B is represented in Central Thai with 'may ʔeek' [ˈ], and tone C is represented in Central Thai using the symbol of 'may t^{h}oo' [ˇ]. Closed (checked) syllables are represented by class D tones which split according to vowel length: DL (dead syllable with long vowel), DS (dead syllable with short vowel). There are four types of initial consonants that divide the four tone categories: voiceless fricative, voiceless unaspirated, glottalized and voiced. Words with different initial consonant types have different tonal splits. Figure 4 contains the 20 different tone boxes for PT words based on Gedney's system. PT tones, which are

designated A, B, C, DL, and DS, are divided into four tone boxes based on PT initial consonant classes. The tone of each box depends on the relationship between the modern tones and the initial consonant classes.

Type of Initial	A	B	C	D- short	D-long
1) Voiceless friction sound	A1	B1	C1	DS1	DL1
2) Voiceless unaspirated	A2	B2	C2	DS2	DL2
3) Glottal	A3	B3	C3	DS3	DL3
4) Voiced	A4	B4	C4	DS4	DL4

Table 1: PT Tone Boxes (Gedney 1972)

It is suggested by Chamberlain (1972) that Southwestern (SWT) dialects can be divided into two groups: P and PH. In the P group, *voiced stops have developed into voiceless unaspirated stops (*b, *d, *g > p, t, k) while they have developed into voiceless aspirated stops in the PH group (*b, *d, *g > p^h, t^h, k^h). Robinson (1994) claimed that according to Maspero (1952)[1], there are two phonological criteria for the classification of Tai dialects. These are: 1) the development of PT voiced stops: *b, *d, *g including pre-glottalised consonants *ʔb, *ʔd and 2) the development of PT initial consonants clusters. Chamberlain's P Group includes Shan, Tai Lu, Black Tai, White Tai, Tai Khamti, Tai Mao, Tai Yuan and others. The PH group includes Thai, Lao, Phu Thai, Phuan and others. Presumably Tai Nua belongs to the P Group. Historically, the P group tone system was ABCD

[1] The author did not have access to Maspero's (1952) article during this thesis research. This discussion of the contents of this article is from Robinson (1994).

123-4 which means the way tones split in the A, B, C and D columns are the parallel. For instance, in Shan, the tone is distributed as shown below:

	A	B	C	DL	DS
1) VL Friction Sound	1	3	4	3	3
2) VL Unaspirated	2	3	4	3	3
3) Glottal Sound	2	3	4	3	3
4) Voiced Sound	2	4	5	4	5

Figure 9: Tone distributions of Shan

The initial consonant qualities (VL Unaspirated, Glottal Sound) 2, and 3 shown in Figure 9 share the same tone while initial consonant qualities 1 and 4 are different (VL Friction Sound, Voiced Sound). However, in some modern dialects of P languages the tone system is A12-34. This means the tones split into two groups: 1, 2, and 3, 4 because they share the same tones shown in column A. For instance, in Tai Yuan (Figure 10), the tone distribution in A column is split into two groups: 12 and 34.

	A	B	C	DL	DS
1) Friction Sound	1	3	5	3	1
2) VL Unaspirated	1	3	5	3	1
3) Glottal Sound	2	3	5	3	1
4) Voiced Sound	2	4	6	4	6

Figure 10: Tone distributions of Tai Yuan

For the PH languages the typical reconstructed tone system is *A1-23-4/BCD 123-4, that is in column *A the tone split is 1-23-4 while in column *BCD the tone split is 123-4 as in Central Thai.

	A	B	C	DL	DS
1) Friction Sound	1	3	4	3	3
2) VL Unaspirated	2	3	4	3	3
3) Glottal Sound	2	3	4	3	3
4) Voiced Sound	2	4	5	4	5

Figure 11: Tone distributions of Central Thai

Chamberlain (1972) defined his hierarchy of criteria used to classify languages in SWT as follows:

1) The P/PH distinction focusing on the development of the proto-voiced stop series if the result is unaspirated or aspirated voiceless stop,

2) The *A column focusing on how the tones split in this column,

3) The *BCD columns in the pattern of tone splits, and

4) The *B-DL coalescence if column *B and *DL carry the same tone.

Figure 12 illustrates Chamberlain's SWT classification. Tai Nua is in the first column.

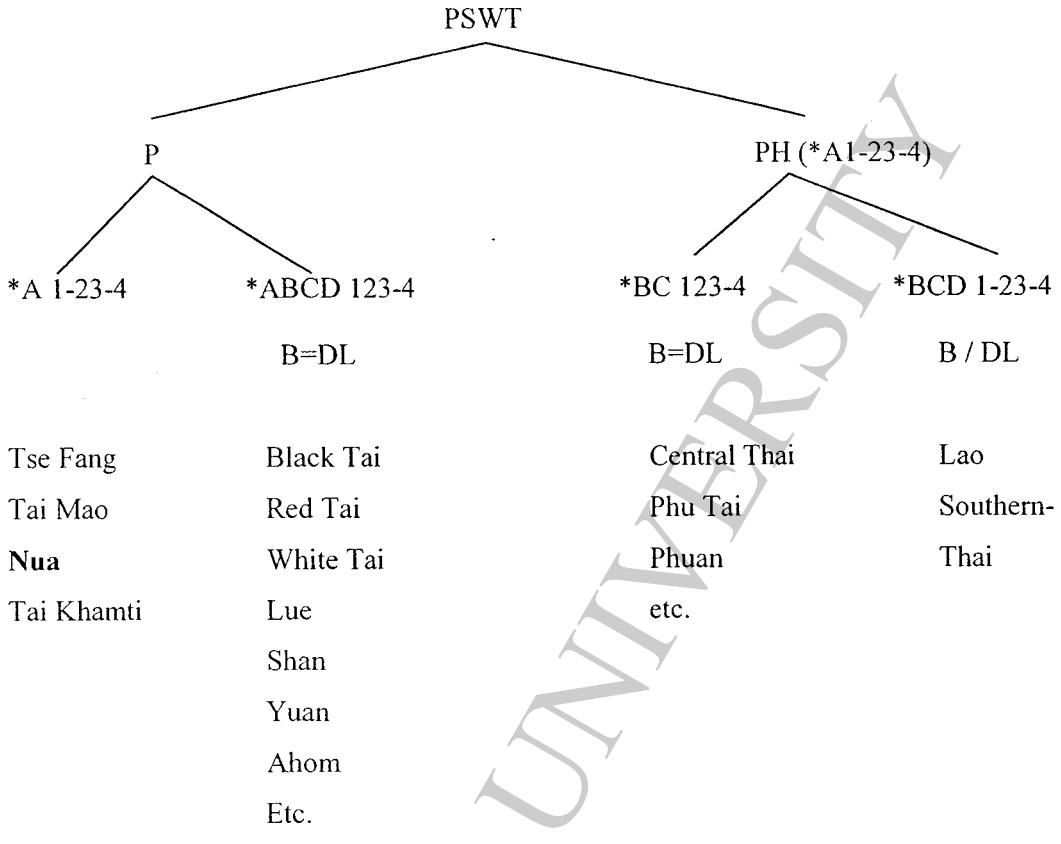

Figure 12: Classification of SWT dialects adapted from Chamberlain (1975)

2.2 Tai Nua Linguistic Description

This research is focused on the Tai Nua language, which is spoken in Yunnan, China. Robinson (1994) summarizes general information about Tai Nua based on Gedney (1976), Kullavanijaya (1998), Yu and Lo (1979), and Harris (1990). Language data used for his analysis comes from Tai Nua speech varieties spoken in southwestern Yunnan Province among the Tai Dehong.

2.2.1 The Tai Nua Tone System

Gedney (1976:65) claims there are six tones in Tai Nua: rising, mid falling, high falling, low level, low level with glottal constriction, and low rising with glottal constriction. Figure 13 shows Gedney's (1976) tone distribution for Tai Nua.

	A	B	C	DL	DS
1) VL Friction Sound	1	4	5	4	1
2) VL Unaspirated	2	4	5	4	1
3) Glottal Sound	2	4	5	4	1
4) Voiced Sound	3	2	6	2	2

Figure 13: Tone distributions for Tai Nua (Gedney 1976)

Figure 13 shows the three way tone split in tone A which can be written as A1-23-4. It is typical of a P group language where the B tone and the DL tone correspond. The (P group languages such as Tai Mau, Tai Khamti, Tai Lue, Shan (Tai Yai), are explained further in 2.2.4).

2.2.2 Tai Nua Consonants

Gedney (1976:66) identified 17 initial consonants, while Yu Tsui Nung and Lo (1979) reported 16. The difference is that Yu contends there is no phonemic contrast between [n] and [l]: therefore, he has only 16 initial consonants. Another difference is that Yu and Lo also reported /ŋ/ while Gedney reported /ɳ/. Robinson follows Yu Tsui Nung's analysis which is summarized in Figure 14.

p	t	c	k	ʔ
p^h	t^h		x	
f	s			h
m			ŋ	
v	l		y	

Figure 14: Tai Nua initial consonants (Yu Tsui Nung and Lo 1979)

2.2.3 Tai Nua vowels

All researchers agree that a vowel length distinction exists only between /a/ and /a:/. Thus there are 11 vowels in Tai Nua. There is only one diphthong. This vowel inventory is shown in Figure 15.

i	ɯ	u
e	ə	o
ɛ	a,a:	ɔ
	aɯ	

Figure 15: Tai Nua Vowels (Gedney 1976:66)

2.2.4 Comparative Tai Nua

Ten Tai dialects (representing Tai Nua, Tai Mao, Khamti, Lu, Shan, Khun, Red Tai, White Tai, Black Tai and Yuan) are compared in Robinson (1994) because they are in the P Group and linguistically related. These dialects share features that distinguish them from other languages in the SWT branch. The PT voiced stop series *b, *d, *g are realized as /p/, /t/ and /k/ in the modern dialects. The phoneme *r has become /h/ in modern P Group languages. There is also a correspondence between B and DL tone categories.

In this present study Central Thai, though it is in PH group, is also compared with the other languages because it is the most known, and it is used by a large number of the speakers of this language family. The initial consonants and the vowels in all dialects will be compared with the ones in Proto-Tai.

2.2.4.1 Proto–Tai initial consonants

Robinson (1994:18) presented a list of Proto-Tai initial consonants adapted from Li (1977:58).

	Labial	Dental	Palatal	Velar	Larynx
Stops					
Unaspirated	p	t	c	k	
Aspirated	p^h	t^h	c^h	k^h	
Glottalized	ʔb	ʔd			ʔ
Voiced	b	d	j	g	
Nasals					
Voiceless	hm	hn	hɲ	hŋ	
Voiced	m	n	ɲ	ŋ	
Fricatives					
Voiceless	f		s	x	h
Voiced	v		z	ɣ	
Liquids					
Voiceless		hr	hl		
Voiced		r	l		
Semi-vowels					
Voiceless	hw				
Glottalized			ʔy		
Voiced	w		y		

Table 2: PT initial consonants (Robinson 1994:18)

Robinson (1994:18-19) also suggested that in modern Tai speech varieties, there are initial clusters in Tai cognate words. These clusters begin with labial, dental or velar consonants.

2.2.4.2 Comparative Consonants

Since Robinson (1994:18) provided the initial consonants of some dialects in a phonemic analysis, Table 3 summarizes various reflexes of PT consonants in the languages under investigation. The phonemes are represented by a regular font while the reflexes are represented in bold-italics, and blank cells mean no data are available.

*Tai initial	Tai Nua	Tai Mao	Khamti	Tai Lue	Tai Yai	Khun	Yuan	White Tai	Red Tai	Black Tai	Central Thai
*p	p	p	p	p	p	p	p	p	p	p	p
*pʰ	pʰ	pʰ	pʰ	pʰ	pʰ	pʰ	pʰ	pʰ	***pʰ***	***pʰ***	pʰ
*t	t	t	t	t	t	t	t	t	t	t	t
*tʰ	tʰ	tʰ	tʰ	***tʰ***	tʰ	tʰ	tʰ	tʰ	tʰ	tʰ	tʰ
*c	c	c	c	c	c	c	c	c	c	c	c
*cʰ				***cʰ***	***s***			cʰ			cʰ
*k	k	k	k	k,kʷ	k,kʷ	k,kʷ	k,kʷ	k,kʷ	k,kʷ	k,kʷ	k
*kʰ	***x***	kʰ	kʰ	***x***	kʰ,khʷ	kʰ,khʷ	kʰ,khʷ	kʰ,khʷ,***x***	kʰ,khʷ	kʰ,khʷ	kʰ
*ʔb				***b***	***m***			***b***			***b***
*b	***p***	***p***	***p***	b	***p***	b	b	b	b	b	b
*ʔd	***d***	***d***	***d***	***d***	***l***	***d***	***d***	***d***	***d***	***d***	***d***
*d	***t***	***t***	***t***	d	t	d	d	d	d	d	d
*j	***c***	***c***	***c***	***c***	***s***	***c***	***c***	***c***	***c***	***c***	***c***
*g	***k***	***k***	***k***	***k***	***k***	***k***	***k***	***k***	***k***	***k***	***k***
*ʔ	ʔ	ʔ	ʔ	ʔ	ʔ	ʔ	ʔ	ʔ	ʔ	ʔ	ʔ
*hm	m	m	m	m	m	m	m	m	m	m	m
*hn	***n***	***n***	n	n	n	n	n	n	n	n	n
*hɲ											
*hŋ											***ŋ***
*m	m	m	m	m	m	m	m	m	m	m	m
*n	***n***	***n***	n	n	n	n	n	n	n	n	n
*ɲ							ɲ	ɲ,ɲw	ɲ,ɲw	ɲ,ɲw	
*ŋ	ŋ	ŋ	ŋ	ŋ	ŋ	ŋ	ŋ	ŋ	ŋ	ŋ	ŋ
*f	f	f	f	f	***pʰ***	f	f	f	f	f	f
*v	v	***f***	***f***	v	***pʰ***	***f***	***f***	v	v	v	***f***
*s	s	s	s	s	s	s	s	s	s	s	s
*z	***s***	***s***	***s***	***s***	***s***	***s***	***s***	***s***	***s***	***s***	***s***
*x	x	***kʰ***	***kʰ***	x,xʷ	***kʰ***	***kʰ***	***kʰ***	xʷ	***kʰ***	***kʰ***	***kʰ***
*ɣ	***g***	***g***	***g***	***x***	***kʰ***	***g***	***g***	***x***	***g***	***g***	***g***
*h	h	h	h	h	h	h	h	h	h	h	h
*hr	***h***	***h***	***h***	***h***	***h***	***h***	***h***	***h***	***h***	***h***	***h***
*hl	***l***	***l***	***l***	***l***	***l***	***l***	***l***	***l***	***l***	***l***	***l***

*r	*h*	*h*	*h*	*h*	*h*	*h*	*h*	*h*	*h*	*h*	r
*l	l	l	l	l	l	l	l	l	l	l	l
*hw		*w*	*w*	*v*	*w*	*w*	*w*				*w*
*w		w	w	v	w	w	w				w
*ʔy	*y*	*y*	*y*	*y*	*y*	*y*	*y*	*y*	*y*	*y*	*y*
*y	y	y	y	y	y	y	y	y	y	y	y
Total	15	15	16	21	19	20	19	26	22	22	21

Table 3: Comparative consonants (adapted from Li 1977:56-59 and Robinson 1994:19)

Note – The blank spaces mean no data is available

Table 3 shows that certain phonemes: /p, p^h, t^h, n, k, m, s, h, l, and j / are shared in every dialect. Those phones not present in P Group languages mostly occur with /ʔ/ and /h/: /ʔb/, /ʔd/, /ʔy/, /hm/, /hn/, /hɲ/, /hŋ/, /hr/ and /hl/. Interestingly, if the phoneme /v/ appears in any dialect, the phoneme /w/ is not found. In the same way, if the dialects contain /w/, then they have no /v/. Note also /k^h/ appears in every dialect except Tai Nua and Tai Lue; both of them use phoneme /x/ instead. Tai Nua and Tai Mao have 15 consonant phonemes, which is the lowest number among the PG languages, while White Tai has the highest number of consonants.

The PT phonemes *b, *d, *g, and *z are regularly devoiced in some modern dialects. Some regular sound shifts are *b becomes [p], *d becomes [t], *g becomes [k], and *z becomes [s]. There is no phoneme in [j], as it becomes [c] in most of dialects except in Tai Yai where it becomes [s].

The phoneme *hŋ becomes either [h] or [ŋ]. The phoneme *hr is represented only by [h] while *hl and *l merge into [l] in all SW dialects. The phonemes *hw and *w merge into either [v] or [w]. The voiced velar fricative *ɣ becomes [g] in most of the dialects except in Tai Lue and White Tai where it becomes [x] and in Tai Yai where it becomes [k^h].

According to Table 3, *r is preserved only in Central Thai. Other SW dialects simply have /h/ for *r.[2]

2.2.4.3 Proto-Tai Monophthongs

The vowel correspondences of SWT are presented in this section. Li (1977:300) proposes that the PSWT (Proto-South Western Tai) vowel inventory had 15 monophthongs, 11 diphthongs, and 2 triphthongs. They are presented in Figure 16.

Monophthongs

i, iː		ɯ, ɯː u, uː
e	ə	o
ɛ, ɛː	a, aː	ɔ, ɔː

Diphthongs

ia		ɯa ua
ai, aːi	əi	
ɛːu	aɯ au, auː	ɔːi

Triphthongs

iau		uai

Figure 16: Proto-Tai vowels (Li 1977)

[2] Some dialects of Central Thai pronounce this phoneme as /l/.

2.2.4.4 Comparative vowels

There are 16 vowels found in P group (PG) languages. Standard Thai is included for comparison, even though it is a member of the PH group. The blank spaces mean no data is available or no vowels occur.

Proto Tai	Tai Nua	Tai Mao	Khamti	Khun	Tai Lue	Shan	Yuan	White Tai	Red Tai	Black Tai	Standard Thai
Monophthongs											
*i	i	i	i	i	i	i	i	i	i	i	i
*i:											i:
*ɯ	ɯ	ɯ	ɯ	ɯ	ɯ	ɯ	ɯ	ɯ	ɯ	ɯ	ɯ
*ɯ:											ɯ:
*u	u	u	u	u	u	u	u	u	u	u	u
*u:											u:
*e	e	e	e	e	e	e	e	e	e	e	e/e:
*ə	ə	ə	ə	ə	ə	ə	ə	ə	ə	ə	ə/ə:
*o	o	o	o	o	o	o	o	o	o	o	o/o:
*ɛ	ɛ	ɛ	ɛ	ɛ	ɛ	ɛ	ɛ	ɛ	ɛ	ɛ	ɛ
*ɛ:				ɛ:							ɛ:
*a	a	a	a	a	a	a	a	a	a	a	a
*a:	a:	a:	a:	a:	a:	a:	a:	a:	a:	a:	a:
*ɔ	ɔ	ɔ	ɔ	ɔ	ɔ	ɔ	ɔ	ɔ	ɔ	ɔ	ɔ
*ɔ:				ɔ:							ɔ:

Table 4: Comparative Monophthongs (adapted from Li 1977:297-300 and Robinson 1998:22-26)

Diphthongs											
*ia									ia	ia	ia
*ɯa									ɯa	ɯa	ɯa
*ua									ua	ua	ua
*ai											
*a:i											
*aɯ	aɯ	aɯ	aɯ			aɯ	aɯ	aɯ		aɯ	
*au											
*a:u											
*ɛ:u											
*ɔ:i											
*əi											
Triphthongs											
*iau											
*uai											
Total	11	11	11	12	10	11	11	11	13	14	18

Table 5: Comparative Diphthongs and Triphthongs (adapted from Li 1977:297-300 and Robinson 1998:22-26)

Table 5 shows that 10 vowels /i/, /ɯ/, /u/, /e/, /ə/, /o/, /ɛ/, /a/, /a:/, and /ɔ/ are the basic phonemic vowels in P Group languages as they occur in every language. The most common diphthong in these speech varieties is /aɯ/. Only the low open front unrounded vowel /a/ has contrastive length across the speech varieties. In Tai Khun the mid open front unrounded vowel /ɛ/ and the low close back rounded vowel /ɔ/, also have contrastive vowel length.

2.2.4.5 Comparative tones

Gedney (1973:424-436) and Robinson (1994:12-15) present tone boxes for PT words. Tones A, B, C, DL, and DS are divided into 4 tone boxes as illustrated in Table 1. The following diagrams show tone distributions of the chosen speech varieties. (See section 2.1 for a more detailed explanation of this tone box system.)

Tai Mao

A	B	C	DL	DS
1	4	5	4	1
2	4	5	4	1
2	4	5	4	1
3	2	6	2	6

Tai Nua

A	B	C	DL	DS
1	4	5	4	1
2	4	5	4	1
2	4	5	4	1
3	2	6	2	2

Shan

A	B	C	DL	DS
1	3	4	3	2
1	3	4	3	2
1	3	4	3	2
2	4	5	4	5

Tai Lue

A	B	C	DL	DS
1	3	5	3	1
1	3	5	3	1
1	3	5	3	1
2	4	6	4	4

Black Tai

A	B	C	DL	DS
1	3	5	3	3
1	3	5	3	3
1	3	5	3	3
2	4	6	4	4

Red Tai

A	B	C	DL	DS
1	3	4	3	3
1	3	4	3	3
1	3	4	3	3
2	4	5	4	3

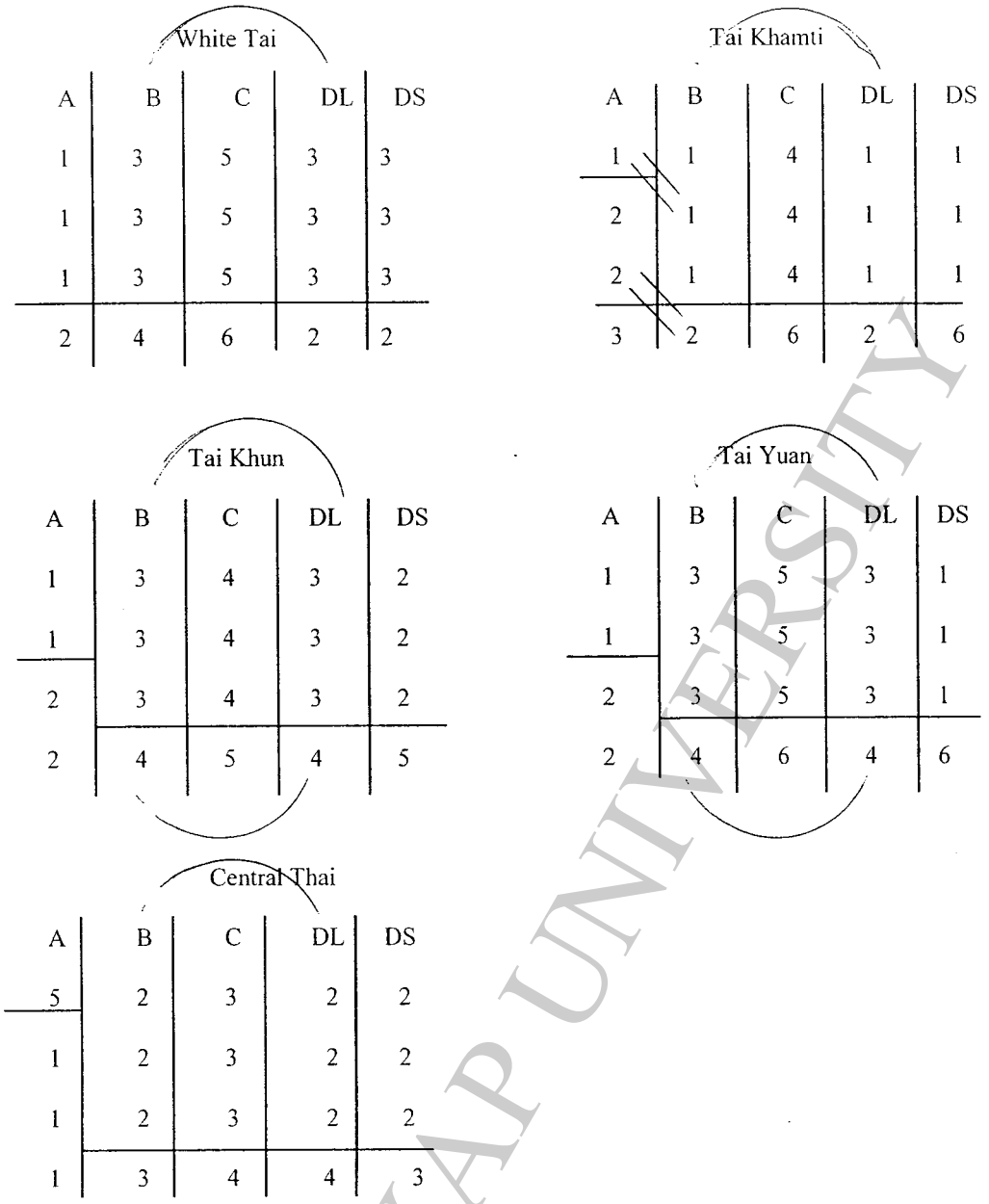

Figure 17: Comparative tones (Robinson 1994)

In Figure 17 Tai Nua, Tai Mao, and Tai Khamti follow the same tone split pattern: A1-23-4 and BCD 123-4. Tai Nua is most closely related to Tai Mao because in the voiced type of initial or group 4 of the DS tone column, there is only one different tone in the diagrams. Tai Nua has tone 2 while Tai Mau has 6. By the same criteria, Black Tai, Red Tai, White Tai, Shan and Tai Lue are considered to

be in the same subgroup because they all have the same tone spilt: ABCD 123-4. As for Tai Khun and Tai Yuan, words in A1 and A2 have the same tone, and words in words in A3 and A4 have the same tones which can be written as A12-34.

2.3 A brief account of the Dehong Dai language

This thesis focuses on Tai Nua spoken in Yunnan, China. Dehong is the name of a prefecture in the western part of Yunnan Province where the Tai Nua group is found. This section gives some basic background information on Tai Nua in Dehong.

2.3.1 Some phonetic features of Dehong

Some interesting phonetic variations of consonants, vowels, and tones occur in Dehong (Yongxian n.d.). The following consonant variations are found.

Phonetic features	Examples
1. Aspirated and unaspirated	p^h-p, t^h-t
2. Liquid and pharyngeal fricative	l-h
3. Velar and sibilant	x-s
4. Velar and palatal	k-ts, ŋ-y
5. Velar/pharyngeal and alveolar	k-t, h-t, ŋ-t
6. Velar stop/ pharyngeal fricative and glottal stop	k-ʔ, h-ʔ
7. Velar and liquids	k-l, h-l
8. Plain and glottal stop	s-ʔ, l-ʔ
9. Miscellaneous	s-t^h, k-h, p-w, p-m, t-l

Table 6: Consonant alternation

The following phonetic variations of vowel are found:

Phonetic features	Examples
1. Mid and high	ɛ-i
2. Low and mid	a:-ɛ
3. Half close and half open	o-ɔ
4. Front and back	i-ɨ, a-o, i-ɔ
5. Rounded and unrounded	u-ɨ
6. Back and central	ɨ-ə

Table 7: Vowel alternation

The following tone variations are found less frequently than those for consonants and vowels:

1. Tone 3 and Tone 4, and
2. Tone 1 and Tone 3

Moreover, contracted forms are frequently found in Dehong with spatial, temporal, or deictic morphemes. They are composed of the initial consonant of the first syllable and the rhyme of the second syllable. For example, the word 'who' is $p^{h}aɨ^{1}$ which comes from $pu^{1}laɨ^{6}$.

2.3.2 Lexicon

There are two types of word forms presented by Luo Yongxian (n.d.): simple and composite. Simple word forms are monosyllabic or polysyllabic. Polysyllabic forms are mostly loanwords. Composite word or compound word forms typically are coordination, modification, subject-predicate, predicate-subject and verb-object/complement.

2.3.3 Grammatical Notes

Some relevant grammatical features are presented below. In term of nominals and noun phrase composite , there are some brief discussions about pronouns and common classifiers in Tai Nua. The pronominal system is composed of 11 pronouns based on person, number, dual, plural, inclusive, and exclusive (Youngxian n.d.).

Dehong Tai Personal Pronoun

Person/Number	Singular	Dual	Plural
1st	*kau*^{6}	*haːŋ*^{2}*ha*^{2} *haːŋ*^{2}*xə*^{1}	*hau*^{2} *tu*^{6}
2nd	*maɨ*^{2}	*sɔŋ*^{1}*xə*^{1}	*su*^{1}
3rd	*man*^{2}	*sɔŋ*^{1}*xa*^{1}	*xau*^{1}

Table 8: Pronouns in Dehong Tai: (Youngxian n.d.)

The most common classifiers in Dehong include *kɔ*^{5}, *pu*^{1} *(pɨ*^{1}*)* for humans, *tə*^{6} for animals, and *ʔan*^{6} for inanimate things. A few nouns can be used as classifiers. The order for classifier constructions is NOUN+NUMERAL+CLASSFIER.

Verb and verb phrase components have temporal-aspectual marking, modal marking and passive forms in Tai Nua.

Temporal-aspectual markers in Dehong include:

ti^{1}	IRREALIS
hau^{5}/*jau*^{5}	COMPLETIVE
wai^{5}/*haɨ*^{5}/*yu*^{3}	PROGRESSIVE
laɨ^{4}	PERFECTIVE/COMPLETIVE

Figure 18: Temporal-aspectual markers

Except for *ti*^{1}, the other markers occur post-verbally.

Some modals marking presented as in Figure 19.

kiŋ^{3}/*p*^{h}*ui*^{3}	Ought to/ should
lo^{3}/*su*^{4}	must/should
lai^{4}	can/to be able to
mo^{1}	can/ to know how to
tsaaŋ^{6}	can/ to be able to, to know how to
yaŋ^{6}*sɛu*^{6}	no need to
yaŋ^{6}*tap*^{5}	need not to

Figure 19: Modal Marking

The following auxiliary verbs are used as passive markers with negative (adversative) connotations: *tso*^{4}, *ŋai*^{5}, *tuk*^{5} *and tok*^{3}. They all occur in a preverbal position.

2.4 Language use among Tai Nua

Goetz (2001:1-5) described the Tai Nua, whom she called Dai speakers. Their population is approximately 40,000 in Mangshi area, western Yunnan Province, China. She investigated Tai language maintenance in that area. She found that the Tai Nua are mostly bilingual in Tai and Chinese, but they speak a variety of Chinese known as "Mangshi hua" or 'Mangshi dialect'. Although there is a policy allowing the Dai language to be used in school, people actually learn how to read and write through literacy education conducted by a volunteer organization called the *Dai xue xuehui* 'Dai study association'. The association holds informal classes which take place in part-time schools for adults in the evening. A publishing house has been established to produce Dai literature.

Linguistically, Goetz (2001:158) proposes that Dai is related to Shan because the two languages share core vocabulary and have phonological and syntactic similarities. However, she believes that they are mutually unintelligible. Her data was collected through observation and interviews. Goetz (2001) studied language use in the Dai community and among Dai individuals. This data covers background information, language use, and language attitudes, social networks and code-switching.

Goetz (2001:108) found the Dai strongly prefer to use Dai within their community, although Chinese is accepted. Seven domains are investigated in her research: in the temple, terms of address used by family members, conversation while watching Dai and Chinese television, general language use, discussing personal problems, going out with friends, and in the markets. The data shows that people predominantly use Dai except for some Chinese loanwords that are used to address family members. Chinese is also used more in discussions among peers in the younger generation.

It is reported by Goetz (2001:111-112) that age, generation and gender do not have as strong an influence on the language choice of Dai speakers as does relationship and level of education. Although the lack of Chinese ability certainly limits language choice, the ability to speak Chinese alone does not predict language choice since many young people are able to speak Chinese but chose to speak Dai in most domains.

Goetz (2001:125-132) mentioned that those who use traditional language or strongly use Dai are more likely to have stronger Dai social networks than those who make extensive use of Chinese. It is reported by the informants that the following factors play an important role in strengthening the Dai social network, the usage of Dai language and the Dai identity: the speech of the older people, marriage with the Dai ethnic group, participation in the community and participation at the temple. In contrast, relocated Dai from different areas and highly educated people have less dense and multiplex Dai social networks or have

more Chinese-oriented language use. These people interact in the Dai community less than those who speak more Dai.

There are different Dai vocations that have an impact on social networks. Goetz (2001:206-212) uses Hojrop's European-based categories (1983:18) to describe these vocations as follows:

> 1) simple commodity production in family-organized units, 2) wage-earning in enterprises characterized by monopoly capitalism and state capitalism, and 3) "success-oriented" wage-earning and management in private competition-oriented enterprises (1983:18).

Those in vocation 1 tend to have a dense, multiplex social network. This type is for those who are involved in agricultural work and temporary wage-earning labor. Those in vocation 2 have a less dense, and more uniplex social network than those in vocation 1. They also have wage-earning work like vocation 1, but after work they often have social activities and entertainment like watching television. Vocation 3 is the least dense, most uniplex and most inter-ethnic social network.

It seems that there are connections between the Dai in Mangshi and those in Myanmar through personal ties, migration, the media, and visits by Shan monks. Goetz (2001:158-160) claims that these connections have strong potential for encouraging Dai language and cultural maintenance. Moreover, there are code-switching and borrowing phenomena present in Dai language usage. Lexically, borrowed words appear in Dai sentences. Code-switching occurs among those who have more extensive use of Chinese. It is motivated by both topic and addressee.

Since Goetz has done all her work on Mangshi, this thesis covering a broader geographic area is helpful.