

THE GRAMMATICAL DEVELOPMENT OF DIRECTIONAL VERBS IN BLACK TAI

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Abstract

Certain directional verbs in Black Tai or Tai Dam have developed into many grammatical functions rather than merely verbs, like those in many other languages. This preliminary study aims to explain spatial and temporal meanings in Black Tai directional verbs and to illustrate the grammaticalization path of these verbs. The Black Tai data was collected by interviewing Black Tai native speakers in Thailand and Laos and reviewing Black Tai folklore texts. After that, the elicited data was analyzed along with these three types of theories: grammaticalization, aspectual, and situational.

The common directional verbs in Black Tai are classified into three contrastive pairs: /paj⁵/ ‘go’ and /ma:⁴/ ‘come’; /khuun⁶/ ‘ascend’ and /loŋ⁴/ ‘descend’; /khaw⁶/ ‘enter,’ and /ʔok³/ ‘go out.’ These directional words not only present the movement direction of a subject, but also note some aspectual meanings of a situation by means of the grammaticalization process over time. Spatial and temporal relations increase semantical and syntactic use of the directional verbs more extensively, from verbs to temporal markers. The directional verbs originally function as verbs at the pre-verbal position, and then are grammaticalized to aspect markers at the post-verbal position due to the influence of spatial and temporal relations.

Keywords: Directional verbs; Black Tai; grammaticalization; aspect

Introduction

Directional verbs such as ‘go,’ ‘come,’ ‘return,’ ‘enter,’ ‘exit,’ ‘ascend,’ ‘descend,’ etc. function as the verbs indicating direction of an action and often appear in serial verb construction and simultaneously exhibit temporal and spatial relation in many languages in Southeast Asia. Thepkanjana and Uehara (2008) explain that directional verbs illustrate a direction of movement towards or away from a landmark as follows:

The landmark is not treated as the source nor the destination of a movement. Rather, the landmark is a known point in the path of movement... Any physical entity may function as a landmark in specifying the direction of the movement. On this basis, directions may be specified as towards or away from such entities functioning as landmarks. (Thepkanjana and Uehara, 2008: 484)

Most studies on directional verbs in languages in Southeast Asia are conducted on major languages such as Chinese, Thai, and Vietnamese. Apparently, directional verbs in Chinese especially Mandarin are the most studied, while among studies of directional verbs in Tai languages, Thai seems to have been studied the most. There is a certain amount of linguistic work on directional verbs and verb serialization in Thai showing the relevance between directional verbs and temporal aspects with regards to the grammaticalization process and semantic analysis, such as the directional verb studies in Intratat (1996), Thepkanjana (1986), Rangkupan (1992), Thepkanjana and Uehara (2008), and Thiengburanatham (2010). Directional verbs in Thai can be motion verbs, propositions and temporal aspects. Similarly, the temporal functions of directional verbs in the Lao language are also noted in Enfield (2007: pp. 232-233) that the verbs ‘go’ and ‘come’ in Lao are also called “aspectual-modals.” Apart from Thai and Lao, these multi functions of directional verbs are also prevalent in other Tai languages, but there is no research on directional verbs in smaller Tai languages like Black Tai, White Tai, Red Tai, Tai Lue, and so forth. It could be more interesting to survey directional verbs in those Tai languages too so that the overall linguistic features of directional verbs in Tai

languages can be viewed. However, currently any available research on directional verbs in Tai languages has been done only in the Thai and Lao languages. Therefore, as one of the Tai languages that has not been studied widely yet, Black Tai is chosen in this study.

This paper focuses on analyzing some usual directional verbs in the Black Tai language that often present at the time of the situation or function as temporal markers. The usual directional words in the Tai languages that can denote temporal meaning are ‘go,’ ‘come,’ ‘ascend,’ ‘descend,’ ‘enter,’ and ‘go out.’ Due to the inherit semantic features, these verbs are used in various syntactic ways, such as main verbs, co-verbs, serial verbs, and temporal markers.

Another interesting view of the directional verb syntactic development is to survey the grammaticalization path of these directional verbs. Along their grammaticalization path from verbs to temporal aspects, the directional verbs may develop unequally: while some directionals can serve more grammatical functions, others can exhibit more limited grammatical functions. Apparently, the grammaticalization process can explain various functions of the directional verbs.

Hence, this paper mainly studies the aspectual and temporal functions of the six Black Tai directional verbs as well as their grammaticalization processes. This preliminary survey is separated into four parts. The first part deals with the background information of the Black Tai people and also the phonology of Black Tai in Thailand. The second part shows the methodology and research framework. The third part describes how the six directional verbs are used in Black Tai. Lastly, the fourth part is the conclusion and discussion.

Black Tai People and Language

1. Black Tai People

The Black Tai people are widely scattered in Vietnam, China, Thailand, and Laos while a smaller number have migrated to the United States and other western countries. The most populated area of Black Tai people is in the northwestern part of Vietnam, which is believed to be the homeland of Black Tais (Gedney, 1964 and Edwards, 2011). In Laos, Black Tai people are

populated densely in the Luangnamtha province. In Thailand, according to Burusphat et al. (2011), the Black Tais migrated to the Phetchaburi province first then moved to other provinces in all other regions in the country. Black Tai in Thailand have various names, for example Tai Dam, Thai Song Dam, Lao Song, Lao Song, Thai Song, and Phu Tai Song Dam.

2. Black Tai Language

Black Tai belongs to Southwestern branch of the Tai language family as same as White Tai, Red Tai, Lao, and Thai (Li, 1960). According to Gedney (1964), Black Tai has its own traditional writing system. In Thailand and Laos, although the Black Tai writing systems were taught to young generations in some communities to maintain and revitalize the Black Tai language, only a few native speakers were capable of reading and writing Black Tai proficiently.

The following briefly describes the phonological system of Black Tai: consonants, vowels, and tones.

Consonants

- Initial consonants

According to Burusphat (2013) and the collected data, Black Tai initial consonants are composed of 20 consonants: p, ph, b, t, th, d, k, kh, c, ʔ, m, n, ɲ, s, f, h, l, w, j.

It is observed from the data that the initials *d* and *l* are fluctuated at various degrees. For instance, /taj⁵ dam³/ ‘Black Tai’ can be pronounced /taj⁵ lam³/, just as /daj⁴/ ‘able’ can be pronounced /laj⁴/.

- Final consonants

There are seven codas in Black Tai: p, t, k, ʔ, m, n, ɲ.

Vowels

Like Standard Thai and Lao, Black Tai has nine vowels and length distinction between long and short vowels: i, i:, u, u:, u, u:, e, e:, ə, ə:, o, o:, ε, ε:, a, a:, ɔ, ɔ:. There are four diphthongs: ia, ua, ua, and au.

Tones

According to Burusphat (2012: pp. 38-39), Black Tai has six tones, which can be described below:

Tone 1: Lower-mid rising

Tone 2: High-rising falling

Tone 3: Mid high rising

Tone 4: Higher-mid level

Tone 5: Lower-mid falling

Tone 6: Higher-mid falling

Methodology and Research Framework

Black Tai data was collected in some provinces in Thailand (Nakhon Pathom, Pitsanulok, Ratchaburi, Phetchaburi, and Sukhothai) and villages in the Luangnamtha province in Laos (Bannamngaen, Thongjaitai, and Phosaisawang). The data was classified into two types. The first type of data was collected by the researcher from 2015 to 2016. A questionnaire that contained about 30 sample sentences included the six directional verbs ('go,' 'come,' 'ascend,' 'descend,' 'enter,' and 'go out') which were used in face to face interviews with the Black Tai informants, and natural conversations and story narrations were also recorded and then were transcribed and translated with the help from native Black Tai speakers who lived in Thailand. The second type of data was collected from Black Tai folklore texts, which were transcribed into Thai letters, and from Black Tai natural conversation transcriptions in Dechapratumwan (2016). Then, the directional verbs (particularly 'go,' 'come,' 'ascend,' 'descend,' 'enter,' and 'go out') and related motion verbs that were found in all the data collected by the researcher and from texts and transcriptions were elicited and analyzed semantically and grammatically.

To examine the aspectual functions and meanings of the directional verbs with multi grammatical functions, grammaticalization theory, aspectual theory, and situational theory were applied. First, the grammaticalization theory explained a changing process from a lexical meaning to a grammatical meaning of directional verbs. Second, the aspectual theory explained the aspectual or temporal meanings implied in each directional verb along the grammatical path. Third, the verb type theory helped explain the co-occurrence of certain specific verbs with directional verbs that indicated aspects.

1. Grammaticalization Theory

To begin, grammaticalization was first coined by a French linguist, Millet (1912), and then further studied increasingly from 1970 onwards (Heine, 2008: 575-576). According to Lehmann (2002), Hopper and Traugott (2003), Heine (2008) and Bybee (2011, 2015), grammaticalization refers to a process of developing a lexical word to a grammatical word or a less grammatical word to a more grammatical word. For instance, the directional ‘go’ in English has evolved to ‘be going to’ conveying future tense. However, ‘go’ is still used as a motion verb despite its development of being a temporal marker. It is obvious that it is not necessary that after a grammaticalization process, the old function of a word will be left behind; in other words, it can either disappear or exist. Generally, these overlapping stages of grammaticalization process are usually found in most grammaticalized items in languages. In the grammaticalization study, there are two dimensions of viewing grammaticalization which are said to be synchronic and diachronic. The synchronic view focuses on the grammatical systems at a point of time, while the diachronic view looks closely at the grammatical change of a language over time from one point of time to another point of time. It is also believed that the grammaticalization process starts from semantic bleaching or loss or reduction in the original meaning to the development of grammatical function and new meanings and then the decategorizing of the process and finally loss or erosion of the constituent structure as follows.

Loss of Meaning >>> Grammatical Development
>>>Decategorialization>>>Loss or Zero

This phenomenon is called differently, namely ‘cline,’ ‘pathway,’ ‘channel,’ ‘chain,’ and ‘continuum.’ (Hopper and Traugott, 2003: 6). Lehmann (2002), Hopper and Traugott (2003), Heine (2008) and Bybee (2011, 2015) all agree that this phenomenon of the grammaticalization process are unidirectional. Basically, this is to say there is only a one-way development, not a reverse one. That is, grammaticalization is the development process that only directs to a more grammatical word. In this paper, directional verbs in Black Tai are analyzed according to the grammaticalization path mentioned above to see how far the directional verbs have developed.

2. Aspectual Theory

In terms of aspectual theory, the aspectual concept proposed by Comrie (1976) is adapted into the directional verb analysis in this paper. Comrie defines aspect as the internal temporal components of an event. Due to the absence of the time relation of a situation to another time which is the characteristic of tense, aspect is called non-deictic or views that are a situation of itself. The major groups of aspect consist of Perfective, Imperfective and Perfect. However, to avoid a clear cut aspect categorization, some aspectual terms are not assigned into the subcategories of any of Perfective, Imperfective and Perfect; I categorize aspect into seven subcategories as listed below.

- Progressive is used in this paper instead of Imperfective denoting ongoing action.
- Continuous is used to refer to a remaining state.
- Perfective refers to a bounded situation which has been completed, ended, or terminated before a reference time.
- Perfect or anterior emphasizes on the resulting state of a complete action.
- Experiential means a state or action that at least once occurred and becomes an experience.
- Inchoative presents the beginning of a new state.
- Inceptive signals the start of an event.

3. Situational Theory

Another theoretical framework that concerns the appearance of directional verbs with other verb types and an aspectual interpretation of each directional verb is situational theory. Some verbs can co-occur with only a specific directional verb. Some verbs can co-occur with two or three directional verbs, but the appearance with different directional verb results in different meaning interpretation. The situation type framework, based on stativity, dynamicity, telicity, and punctuality, is adapted from Smith (1991), Van Valin (2005), Phillips & Thiengburanathum (2007), and Enfield (2008) as listed below:

State:	static and atelic
	ju: ³ ‘live’, mi: ⁴ ‘have’, ŋam ³ ‘think’

Adjectival state:	static and atelic fɔ:m ⁴ ‘thin’, pi: ⁴ ‘fat’, can ⁵ ‘beautiful’
Achievement:	dynamic/non-dynamic, telic and punctual ta:j ⁵ ‘die’, siə ⁵ ‘lose, broken’, tək ⁵ ‘break’
Semelfactive:	dynamic/non-dynamic, atelic, and punctual ʔaj ⁵ ‘cough’
Activity:	dynamic and atelic na:ŋ ⁶ ‘walk’, kin ⁵ ‘eat’, ʔən ¹ ‘call’
Accomplishment:	dynamic/non-dynamic and telic taŋ ⁶ huan ⁴ ‘build a house’

State and activity verbs can be subcategorized into certain numbers as shown in Table 1 below adapted from Van Valin (2005: 55):

Table 1: Verb types by Van Valin (2005: 55)

Verb class	Subcategories	Examples	Argument
State	State/Condition	broken	Single
	Existence	exist	Single
	Pure location	be-LOC	Two
	Perception	hear	Two
	Cognition	know	Two
	Desire	want	Two
	Propositional attitude	consider	Two
	Possession	have	Two
	Internal experience	feel	Two
	Emotion	love	Two
	Attributive	be	Two
	Identificational	be	Two

Table 1: (Continued)

Verb class	Subcategories	Examples	Argument
State	Specificational	be	Two
	Equational	equate	Two
Activity	Unspecified action	do	Single
	Motion	walk	Single
	Static motion	spin	Single
	Light emission	shine	Single
	Sound emission	gurgle	Single
	Performance	sing	Single or two
	Consumption	eat	Single or two
	Creation	write	Single or two
	Directed perception	hear	Single or two
	Use	use	Single or two

In Thai, certain verbs that contain the inherit notion of time phase can denote aspectual meanings. According to Thiengburanathum (2010), verbs with aspectual properties are called ‘phasal verbs.’ For instance, /rəɯm³/ ‘begin, start’ shows inceptive aspect indicating the beginning of an event; /jut²/ ‘stop’ and /ləək³/ ‘quit’ show the termination of an event; /set²/ ‘finish’ and /cop²/ ‘end’ present the completion of an event; /təɔ²/ ‘connect, resume’ indicates the continuation of an event after a break or interruption; /khaɯŋ⁴/ ‘remain, be stuck’ exhibits a pending moment; /mot²/ ‘complete’ notes the completion of the event caused by the loss of all elements. These phasal verbs come along with an aspectual meaning even though there is no appearance of an aspect marker.

In addition to those phasal verbs, verbs in Thai are usually categorized by their inherent semantic properties. According to Sindhvananda (1970), verbs in Thai are categorized semantically into the followings:

- Verbs of mental state: ‘think,’ ‘agree,’ ‘glad,’ ‘happy,’ and ‘worry’
- Verbs of perception: ‘listen,’ ‘hear,’ ‘see,’ ‘look,’ and ‘smell’
- Verbs of motion: ‘walk,’ ‘run,’ ‘lift,’ ‘move,’ and ‘push’
- Verbs of communication: ‘speak,’ ‘talk,’ ‘call,’ and ‘shout’
- Verbs of being: ‘be,’ ‘stay,’ ‘sick,’ and ‘strong’
- Verbs of destruction: ‘break,’ ‘kill,’ ‘crash,’ and ‘deteriorate’
- Verbs of consumption: ‘eat,’ ‘drink,’ ‘swallow,’ and ‘sip’
- Verbs of recognition: ‘know,’ ‘remember,’ ‘memorize,’ and ‘comprehend’
- Verbs of creation: ‘build,’ ‘install,’ ‘invent,’ and ‘compose’
- Verbs of posture: ‘stand,’ ‘sit,’ and ‘lie’
- Verbs of description: ‘good,’ ‘bad,’ ‘clean,’ and ‘delicious’

The semantic properties embedded in verbs play an important role in determining the meaning and grammatical function of directional verbs. In Thai, directional verbs are not only used as main verbs but also auxiliary verbs in verb serialization structure, which are prevalent in Thai language. The directional verbs juxtaposing to a main verb are often considered auxiliary verbs that indicates the direction of an action as shown in the following examples.

- (1)

khaw ⁵	wiŋ ³	pay ¹	roŋ ¹ rian ¹
3SG	run	go	school

‘He/She runs to school.’
- (2)

khaw ⁵	də:n ¹	loŋ ¹	ma: ¹	lew ⁴
3SG	walk	descend	come	ASP

‘He/She has already walked down.’

It is the same as Thai language that the co-occurrence of directional verbs with other verbs in the verb serialization form is also widely found in Black Tai and other Tai languages. Due to the similarity of this verb phrase structure in which directional verbs appear, verbs in Black Tai in this paper are categorized by their semantic properties just as Thai verbs are classified above.

The meanings inherited in verbs are likely to influence how directional verbs in Black Tai are in a sentence and how they function syntactically and semantically.

Thus, all of these theories in grammaticalization, aspect, and situational type are the major framework that analyze the directional verbs in Black Tai. The result of this Black Tai directional verb study is divided into two parts: directional verbs as main verbs and grammaticalization of directional verbs.

Results

1. Directional Verbs as Main verbs

The directional verbs in Black Tai that are chosen to be discussed in this research are /paj⁵/ ‘go,’ /ma:⁴/ ‘come,’ /khu:n⁶/ ‘ascend,’ /loŋ⁴/ ‘descend,’ /khaw⁶/ ‘enter,’ and /ʔək³/ ‘go out.’ Let’s consider those verbs in pairs: /paj⁵/ ‘go’ and /ma:⁴/ ‘come’; /khu:n⁶/ ‘ascend’ and /loŋ⁴/ ‘descend’; /khaw⁶/ ‘enter’ and /ʔək³/ ‘go out.’

/paj⁵/ ‘go’ and /ma:⁴/ ‘come’

The illustration below shows the movement of the directional verbs /paj⁵/ ‘go’ and /ma:⁴/ ‘come.’

/paj⁵/ ‘go’: Starting point at the speaker’s location ⇒ Many goals

/ma:⁴/ ‘come’: The speaker’s location as the only goal ⇐ Starting point

The verbs /paj⁵/ ‘go’ and /ma:⁴/ ‘come’ in Black Tai are considered as serial verbs and deictic verbs. As a verb in front of a place, the directional verb /paj⁵/ in Black Tai is characterized as a motion verb orienting outward from a speaker, and the place is the destination away from the speaker. In contrast, /ma:⁴/ refers to a movement toward a speaker who is already at the destination.

- (3) paj⁵ lo:ŋ⁴ lian⁴
 go school
 ‘Go to school.’
 (The speaker is not at school.)

- (4) ma:⁴ lo:ŋ⁴ lian⁴
 come school
 ‘Come to school.’
 (The speaker is at school.)

However, /paj⁵/ and /ma:⁴/ can be followed by activity verbs particularly verbs of motion, posture, performance, and consumption. At this pre-verbal position, /paj⁵/ tells an outward direction of an action from the speaker, and /ma:⁴/ indicates the direction of an action towards the speaker while the main verb is the following verb as shown in the following examples (5) and (6).

- (5) paj⁵ kin⁵ khaw⁶ laj⁶ lew⁶
 go eat rice be able to SFP
 ‘Go to have a meal.’
 (The speaker is not at the place for having food.)

- (6) ma:⁴ kin⁵ khaw⁶ laj⁶ lew⁶
 come eat rice be able to SFP
 ‘Come to have a meal.’
 (The speaker calls someone to come to his/her location to have food.)

Thus, the main verb in the examples (3) and (4) is the activity verb /kin⁵/, not /paj⁵/ and /ma:⁴/ which would rather be considered as directional auxiliary verbs.

/khuun⁶/ ‘ascend’ and /loŋ⁴/ ‘descend’

The verbs /khuun⁶/ ‘ascend’ and /loŋ⁴/ ‘descend’ in front of a noun functions as a main verb showing the upward and downward movement. The object coming after /khuun⁶/ ‘ascend’ and /loŋ⁴/ ‘descend’ is usually a place, vehicle, construction, plant, human/animal organ, or furniture, which is considered a destination of the motion. The directional verb /khuun⁶/ points out an upward movement as /loŋ⁴/ indicates a downward movement.

- (7) khuun⁶ lot⁴
 ascend car
 ‘Get on the car.’

- (8) loŋ⁶ loŋ⁴
 descend car
 ‘Get off the car.’

It should be noted that when an object is omitted, /khuŋ⁶/ ‘ascend’ and /loŋ⁴/ ‘descend’ is followed by /paj⁵/ ‘go’ and /ma:⁴/ ‘come’ such as /khuŋ⁶ paj⁵/, /loŋ⁶ paj⁵/, /khuŋ⁶ ma:⁴/, and /loŋ⁶ ma:⁴/ . The destination of the movement can be understood since the deictic verbs /paj⁵/ and /ma:⁴/ shift the focus to the speaker’s location: /paj⁵/ means the destination is somewhere away from the speaker, while /ma:⁵/ means the destination is where the speaker is located.

/khaw⁶/ ‘enter’ and /ʔək³/ ‘go out’

The verb /khaw⁶/ ‘enter’ refers to an inward movement and /ʔək³/ ‘go out’ refers to an outward movement. The verb /ʔək³/ sometimes means ‘leave’ or ‘move out from a place.’ as in the following examples.

- (9) ci³ khaw⁶ muar⁴ wiət² nam⁴ ləw⁶
 will enter country Vietnam SFP
 ‘(We) will enter Vietnam.’
- (10) loŋ⁴ ci³ ʔək³ ləw⁶
 car will go out SFP
 ‘The car is about to leave.’

Similar to the words /khuŋ⁶/ ‘ascend’ and /loŋ⁴/ ‘descend,’ the directional verbs /khaw⁶/ ‘enter’ and /ʔək³/ ‘go out’ are often followed by /paj⁵/ ‘go’ and /ma:⁴/ ‘come’ such as /khaw⁶ paj⁵/, /ʔək³ paj⁵/, /khaw⁶ ma:⁴/, /ʔək³ ma:⁴/ . Both /paj⁵/ and /ma:⁴/ tell whether the destination is near the speaker or away from the speaker.

2. Grammaticalization of Directional verbs

In relation to the grammaticalization process, the verbs ‘go,’ ‘come,’ ‘ascend,’ ‘descend,’ ‘enter,’ and ‘go out’ in Black Tai at the post-verbal position have developed more grammatical functions. These verbs usually appear in the verb serialization structure and can serve as co-verbs, temporal and aspectual markers, and resultative markers. The other directional verbs ‘enter,’ ‘go out,’

‘ascend,’ and ‘descend’ in Black Tai are more likely to grammaticalize to the resultative markers and to denote the change of degree.

Serial Verb

After motion verbs such as ‘walk,’ ‘drive,’ and ‘run,’ the six directional verbs have grammaticalized from a main verb to a co-verb in the verb serialization structure. They may look like a preposition by their translation to English in the following examples, yet they rather serve as another verb in the sentence. The subject in (11) is walking and going; the subject in (12) is walking and coming. The verbs /paj⁵/ and /ma:⁴/ are not acting like a preposition but a directional verb pointing the direction of walking away and towards the speaker instead. It could be said that the verbs /paj⁵/ and /ma:⁴/ modify the direction of the main verb /ɲa:ŋ⁶/.

- (11) ɲa:ŋ⁶ paj⁵ lo:ŋ⁴ lian⁴
 walk go school
 ‘Walk to school’
 (The speaker is not at school.)

- (12) ɲa:ŋ⁶ ma:⁴ lo:ŋ⁴ lian⁴
 walk come school
 ‘Walk to school’
 (The speaker is already at school.)

It is the same as /paj⁵/ ‘go’ and /ma:⁴/ ‘come’ that the verbs /khuun⁶/ ‘ascend’ and /loŋ⁴/ ‘descend’ appear in the verb serialization construction and function as a co-verb that identifies the direction of the preceding motion verb as shown in the examples below. Both /khuun⁶/ ‘ascend’ and /loŋ⁴/ ‘descend’ tell of the direction upwards and downwards of the main verb /ɲa:ŋ⁶/ ‘walk.’

- (13) ɲa:ŋ⁶ khuun⁶ huan⁴ paj⁵ nɔ:n⁴ laj⁶ lɛw⁶
 walk up house go sleep be able to SFP
 ‘You should walk up to the house and sleep.’

- (14) dek³ nɔ:j⁶ kam⁴ laŋ⁴ ɲa:ŋ⁶ loŋ⁴ khan⁵ daj⁴ ma:⁴
 child ASP walk down stairs come
 ‘The child is walking down the stairs’

- (15) man⁴ siəw² ɲa:ŋ⁶ khuən⁶ paj⁵bə⁵ laj⁴
 3SG adventurous walk ascend go NEG

be able to

‘I am afraid. I cannot walk up there.’

(The stairs are too high. The speaker is afraid of the height.)

- (16) ɲa:ŋ⁶ loŋ⁶ ma:⁴ lə:j⁴ bə⁵ təŋ⁵ lə⁴
 walk descend come SFP NEG have to wait

‘Walk down here now. There is no need to wait.’

In short, both directional verb pairs—/khuən⁶/ and /loŋ⁴/ as well as /paj⁵/ and /ma:⁴/—present the direction of the movement that relates to the speaker’s location regardless of the appearance of a following object or place.

Similarly, the verbs /khaw⁶/ ‘enter’ and /ʔək³/ ‘go out’ are also frequently followed by /paj⁵/ ‘go’ and /ma:⁴/ ‘come’ in the verb serialization structure as shown in the (17) and (18). The subject is afraid of walking, entering and going to a dark place in (17); the subject is walking, going out, and coming towards the speaker in (18). All the four directional verbs in the examples below are considered co-verbs that modify the direction of the motion verb /ɲa:ŋ⁶/ ‘walk.’

- (17) bə⁵ ɲa:n⁶ ɲa:ŋ⁶ khaw⁶ paj⁵ man⁴ muəd³ e²
 NEG dare walk enter go 3SG dark a lot

‘I am afraid to walk in there because it is very dark.’

- (18) ɲa:ŋ⁶ ʔək³ ma:⁴ laj⁴ ləw⁶ lə⁴ hɛ:ŋ⁴ ləw⁶
 walk go out come be able to SFP wait long time ASP

‘You should walk out now. I have already been waiting for a long time.’

Note that these six directional verbs can be placed in front of other verbs in the verb serialization construction too. The most interesting thing is that the directional verbs can be followed by several kinds of verb such as verbs of consumption, communication, action, destruction, creation, posture, and perception. At the pre-verbal position, all of the directional verbs function as a co-verb that notes the movement of the subject to do an activity, as illustrated in the following examples. However, from the available data, the three pairs of

Black Tai directional verbs are not found in front of the verbs of being, recognition, and mental state.

- (19) ma:⁴ kin⁵ khaw⁶ waj² waj² ʔə:m⁴ lɔ:⁴ ju:⁵
 come eat rice quickly mother wait DUR
 ‘Come quickly to have a meal. Mother is waiting.’

- (20) dek³ nɔ:j⁶ khun⁶ paj⁵ nɔ:n⁴ laj⁶ lɛw⁶
 child ascend go sleep be able to SFP
 ‘The child should go to bed now.’

- (21) ʔək³ paj⁵ ʔin⁶ kan⁴
 go out go play each other
 ‘Let’s go out and play together.’

In conclusion, the directional verbs /paj⁵/ ‘go’ and /ma:⁴/ ‘come,’ /khun⁶/ ‘ascend’ and /loŋ⁴/ ‘descend,’ and /khaw⁶/ ‘enter’ and /ʔək³/ ‘go out’ in Black Tai that are situated behind a motion verb have a duty to point out the direction of the preceding motion verb, while their appearance at the pre-verbal position in front of the activity verbs demonstrates that the directional verbs are a co-verb that denotes the direction and movement of the subject to do something. At the post verbal position, these directional verbs usually co-occur with the motion verbs. They could follow other activity verbs and still serve as a directional co-verb as long as a destination or place comes after as shown in the example below.

- (22) dek³ nɔ:j⁶ haj⁵ ma:⁴ huan⁴
 child cry come home
 ‘The child is crying as coming home.’

If the directional verbs follow other verb types without a place behind, they are more likely to grammaticalize to other grammatical functions and imply some other meanings, which is described below in Aspect-Temporal, Resultative, and Change in degree.

Aspect-Temporal

In Black Tai language, at the post-verbal position after the non-motion verb, the two directional verbs /paj⁵/ ‘go’ and ma:⁴/ ‘come’ have grammaticalized to denote certain aspectual meanings: perfective, perfect and continuous, when they follow certain verb types excluding motion verbs. The directional verb /paj⁵/ ‘go’ can mark both perfective and continuous aspect, and /ma:⁴/ ‘come’ denotes perfect aspect.

- Perfective

The directional verb that can signal the perfective aspect is /paj⁵/ ‘go.’ The perfective aspect is considered as a bounded event that has been completed at some point of time in the past before the speech moment. The verb /paj⁵/, serving as the first verb in a verb phrase or the second verb following a motion verb, conveys the direction of a situation as mentioned in the earlier sections, but as the secondary verb which is often followed by a time frame or a quantity, the verb /paj⁵/ can denote perfective aspect. It also depends on which verb types precede the directional verb /paj⁵/.

Let’s consider how the verb /paj⁵/ ‘go’ acts as a perfective marker. Generally, /paj⁵/ that marks a perfective situation does not appear with state verbs, such as verbs of mental state, being, recognition, and description. Most verbs that are compatible with perfective marker /paj⁵/ are verbs of doing, consumption, destruction, and communication.

First, the verb /paj⁵/ ‘go’ that can note a perfective notion follows verbs of doing just as in the following example (23): the post verbal /paj⁵/ does not mean that the subject is going but yield the a completed action some time in the past.

- (23) thi:⁶ ʔət² paj⁵ man⁴ bɔ⁵ hu⁵ khuam⁴
 that do go 3SG NEG know matter

‘He/She did it because he/she did not know what is right to do.’

Second, the verb /paj⁵/ ‘go’ that follows the verb of consumption such as /kin⁵/ ‘eat, drink’ in the example (24) also gives a perfective aspect when a quantity of consumption comes after at the end

of sentence to set a boundary to the event. The verb /paj⁵/ in (24) denotes the disappearance of food and at the same time, the completion of consumption. Without the quantity, the verb /paj⁵/ may offer other aspectual meanings which will be discussed later.

- (24) mur:⁶ ni:⁶ kin⁵ ma⁴ muoŋ⁶ paj⁵ sam⁴ luk⁵
 today eat mango go three CL
 ‘Today I have eaten three mangoes.’

Moreover, /paj⁵/ can occur with achievement verbs that indicate death, cessation, destruction or missing to present a perfective situation. The verb /paj⁵/ locating after an achievement verb, such as /ta:j⁴/ ‘die’ in (25) and /lɔʔ³/ ‘quit’ in (26), can note the resulting state of a complete situation that lasts until now.

- (25) ʔə:m⁴ ta:j⁴ paj⁵ hɛ:ŋ⁴
 mother die go long time
 ‘Mother passed away for a long time.’
- (26) lɔʔ³ kan⁴ paj⁵ tɛ:⁵ ɲaŋ⁴ mak³ kan⁴ ju:⁵
 quit together go but still love together ASP
 ‘Even though we have broken up, we still love each other.’

The verb ‘go’ that co-occurs with verbs of saying or communication such as /paʔ³/ ‘speak, talk,’ /bɔk³/ ‘tell,’ and /wau¹ beo⁴/ ‘tell a lie’ also provides the perfective aspect to a situation. As in the following example (27), the verb /paj⁵/ notes the completion of telling someone, neither the direction of the main verb nor subject. The message has been told at some point of time in the past.

- (27) saw² bɔk³ paj⁵ wa⁴ saw² bɔ⁵ hu⁵
 3SG tell go that 3SG NEG know
 ‘He/She told that he/she does not know.’

- Perfect

Compared to the verb /paj⁵/, the verb /ma:⁴/ is rather considered as a perfect marker when it is placed at the post-verbal position. Perfect aspect refers to the relevance of a completed action at one point of time

that results in the state at another point of time. The perfect marker /ma:⁴/ can follow more varieties of verb types, such as verbs of action, perception, or creation shown in (28), (29), and (30) respectively, and state verbs as shown in (31). It can be noted that a phrase following /ma:⁴/, such as a quantity of something or an amount of time, is not obligatory; the directional verb still presents a perfective meaning after the activities verbs excluding motion verbs.

- (28) saw² lian⁴ ma:⁴ ki⁵ pha⁴ sa⁴
 3SG study go how many/much language
 ‘How many languages has he/she studied?’
- (29) a: paj⁵ bəŋ⁵ naŋ³ ma:⁴ mak³ bə⁵
 go look/watch movie come like NEG
 ‘You went to see a movie. Do you like it?’
 b: bəŋ⁵ ma:⁴ sɔ:ŋ³ tua⁶ kə⁵ jaŋ⁴ bə⁵ mak³
 look/watch come two times also still NEG like
 ‘I have watched it twice and I still do not like it.’
- (30) taŋ⁶ huan⁴ ni:⁶ ma:⁴ sɔŋ³ pi:⁴ kə⁵ jaŋ⁴ bə⁵ ləw⁶
 build house this come two year also still NEG ASP
 ‘This house has been being built for two years and it has not been completed yet.’
- (31) puoj⁵ ma:⁴ hɛ:ŋ⁴ bə⁵ laj⁴ paj⁵ wat⁴ lə:j⁴
 sick come long time NEG be able to go temple SFP
 ‘I have been sick for a long time, so I did not go to the temple.’

However, /ma:⁴/ that follows a motion verb such as ‘walk’ and ‘run’ could give a perfect notion if an adverb of time or amount of time appears after, as shown in the example below:

- (32) lɛ:n³ ma:⁴ hɛ:ŋ⁴ bə⁵ mi:⁵ hɛ:ŋ³ ləw⁶
 run come long time NEG have energy ASP
 ‘I have been running for a long time and now I do not have energy left.’

- Continuous

The continuous aspect, which refers to a continuing state, can be noted by the directional verb /paj⁵/ ‘go.’ The directional verb /paj⁵/ ‘go’ can follow several verb types, such as perception verbs in the following examples (33) and (34).

- (33) bəŋ⁵ paj⁵ man⁴ kɔ⁵ can⁴ di:⁵
 look/watch go 3SG also beautiful good
 ‘Looking at it for a while, I think it is beautiful.’

- (34) bɔ⁵ təŋ⁶ paʔ³ bəŋ⁵ thi:⁴wi:⁴ paj⁵
 NEG have to speak look/watch television go
 ‘Don’t talk and keep watching the TV.’

In addition to the appearance with verbs of perception, when /paj⁵/ ‘go’ is positioned behind a consumption verb such as ‘eat’ and an action verb such as ‘do’ without any temporal limitation phrase. Consider /paj⁵/ ‘go’ plus the consumption verbs such as /kin⁵/ ‘eat’ in the following example. This is what a mother says when her children are playing while eating a meal.

- (35) kin⁵ paj⁵ ja² ʔin⁶ kan⁴
 eat go NEG play each other
 ‘Continue eating and don’t play.’

In short, the continuous aspect can be indicated by the directional verb /paj⁵/ ‘go’ that follows verbs of perception and action. It should be noted that the action verbs that co-occur with the directional verb /paj⁵/ tend to express continuous aspect rather than perfective aspect. The action verbs plus /paj⁵/ that can give a perfective meaning are usually followed by a quantity or time frame to set the event boundary. Without these adverbs of quantity or time, the appearance of /paj⁵/ after most action verbs would denote a continuous aspect.

Resultative

Another phenomenon of serial verb construction is that some kinds of verbs that follow the first verb give the meaning of success or non-success of

the action of the main verb. This secondary verb is called a resultative verb. There are four directional verbs that can serve as resultative or successful markers: /khun⁶/ ‘ascend,’ /loŋ⁴/ ‘descend,’ and /ʔək³/ ‘go out.’ The grammatical development to resultative markers of these three directional verbs is shown in two structures. The first structure is a post-negation position (V₁ + negator /bɔ⁵/ ‘not’ + V₂ (khun⁶/loŋ⁴/ʔək³)), which indicates a non-successful situation, and the second one is the appearance of /khun⁶/, /loŋ⁴/, and /ʔək³/ after the main verb or the first verb, which presents a successful event.

The directional verbs /khun⁶/ ‘ascend’ and /loŋ⁴/ ‘descend’ that serve as resultative markers usually co-occur with motion verbs and action verbs to indicate a non-successful or successful situation. The following examples demonstrate how the directional verbs /khun⁶/ and /loŋ⁴/ as secondary verbs note a resultative meaning.

- (36) a: pɔ⁴ khun⁶ bɔ⁵
 lift ascend NEG
 ‘Can you lift it up?’
- b: pɔ⁴ bɔ⁵ khun⁶ man⁴ nak³ e²
 lift NEG ascend 3SG heavy a lot
 ‘I cannot lift it up. It is very heavy.’
- (37) bɔ⁵ səp³ khaw⁵ kin⁵ bɔ⁵ loŋ⁴
 NEG hungry rice eat NEG descend
 ‘I am not hungry. I cannot eat.’

The directional verb /ʔək³/ ‘go out’ denotes a non-successful situation when it appears after the main verb + a negator /bɔ⁵/ ‘not.’ Without the negator, /ʔək³/ placed right after main verb indicates a successful situation. However, /ʔək³/ is apparently used to refer to the achievement of an abstract and stative notion when it co-occurs with some perception verbs such ‘think,’ ‘listen,’ and ‘look’ as in the below examples.

- (38) saw² siŋ² saŋ⁴ le⁴ ŋam³ bɔ⁵ ʔək³
 3SG last name what think NEG out
 ‘What is his last name? I cannot remember.’

- (39) faŋ⁴ ʔək³ bə⁵ paʔ³ saŋ⁴ le⁴
 listen out NEG say what
 ‘Do you understand what he said?’

- (40) bəŋ⁵ bə⁵ ʔək³ wa⁵ pen⁴ khon⁴ su:⁶ law⁶
 look NEG out that be person honest SFP
 ‘I don’t know if he is an honest guy or not?’

Interestingly, the directional verb /khaw⁶/ ‘enter’ is not found in this resultative structure, but mostly presents only the direction of movement and prepositional meaning. The directional verb /ʔək³/ ‘go out’ seems to have more grammatical functions: directional verb, preposition, and resultative marker.

It can be noticed that the resultative notion can be expressed by /khun⁶/ ‘ascend,’ /loŋ⁴/ ‘descend,’ and /ʔək³/ ‘go out’ in two patterns. First, action verbs and motion verbs are followed by the directional verbs /khun⁶/ ‘ascend’ and /loŋ⁴/ ‘descend’ without the attachment of /paj⁵/ ‘go’ and /ma:⁴/ ‘come.’ Second, perception verbs are followed by /ʔək³/ ‘go out.’

Change in Degree

A change in the lower or higher degree of a state can be marked by two directional verbs /khun⁶/ ‘ascend’ and /loŋ⁴/ ‘descend.’ The occurrence of /khun⁶/ and /loŋ⁴/ with adjectival verbs, such as verbs denoting quality or describing characteristics, conveys the change in degree of a state. The verb /khun⁶/ ‘ascend’ or ‘go up’ presents a change in a higher degree, while the verb /loŋ⁴/ ‘descend’ refers to a change in a lower degree. That is, the meaning of upward movement from /khun⁶/ refers to a higher degree of the state; on the other hand, that of the downward movement from /loŋ⁴/ refers to a lower degree of the state as illustrated in the following examples:

- (41) pi³ khun⁶
 fat ascend
 ‘get fatter.’

- (42) fə:m² loŋ⁴
 thin descend
 ‘get thinner.’

It can be noticed that the adjectival verbs that can co-occur with /khuun⁶/ ‘ascend’ and /loŋ⁴/ ‘descend’ normally have an antonym pair, such as /pi³/ ‘fat’ VS /fɔ:m²/ ‘thin’ and /jaw²/ ‘big’ VS /nɔ:j⁶/ ‘small.’ The inherit semantic features in each adjectival verb determine whether the verb can be followed by /khuun⁶/ or /loŋ⁴/. The adjectival verbs with the meaning relevant to largeness and decency usually appear with /khuun⁶/. In contrast, the adjectival verbs with the meaning of smallness and indecency usually co-occur with /loŋ⁴/. Thus, in the above examples (41) and (42), /pi³/ ‘fat’ has never been used with /loŋ⁴/, and /fɔ:m²/ has never been found with /khuun⁶/.

To explain this phenomenon, the co-occurrence of the verb ‘ascend’ with a decent adjectival verb and the verb ‘descend’ with an indecent adjectival verb can be supported by the Lakeoff and Johnson (2003) who study the significance of the conceptual system that is considered metaphorical. They believe that metaphor relates to our thoughts influencing the way of speaking a language. The words ‘up’ and ‘down’ refer to different concepts as illustrated in the followings:

‘HAPPY IS UP; SAD IS DOWN’

‘MORE IS UP; LESS IS DOWN’

‘HIGH STATUS IS UP; LOW STATUS IS DOWN’

‘GOOD IS UP; BAD IS DOWN’

(Lakeoff and Johnson, 2003: 16-17)

However, the verbs /khuun⁶/ and /loŋ⁴/ also appear with many activity verbs without the notion of change in degree. Verbs of motion, posture, or action followed by /khuun⁶/ ‘ascend’ and /loŋ⁴/ ‘descend’ do not yield any change of stative degree. The directional verbs /khuun⁶/ ‘ascend’ and /loŋ⁴/ ‘descend’ signal only the vertical direction of an action. In this case, the change in degree is not shown as in the example below.

- (43) pa:ŋ⁶ khuun⁶/loŋ⁴ huan⁴
 walk ascend/descend house
 ‘Walk up to the house/Walk down from the house.’

Adjectival states may co-occur with /ma:⁴/ ‘come’ which denotes the direction of the adjectival state coming towards the speaker but does not specifically imply any change in degree. The example below illustrates the co-occurrence of an adjectival state plus /ma:⁴/.

- (44) fon⁵ ci³ tok¹ lɛw⁶ mud³ ma:⁴ han⁶
 rain will fall ASP dark come SFP
 ‘The rain is going to rain. The sky is dark.’

To sum up, in Black Tai, the directional verbs /paj⁵/ ‘go’ and /ma:⁴/ ‘come’ do not allow any change in stative degree. Instead, the change in degree will be denoted by the addition of /khuun⁶/ ‘ascend’ and /loŋ⁴/ ‘descend’ after the adjectival states.

Discussion and Conclusion

It is obvious that the grammaticalization path of the six directional verbs in Black Tai develops in the same direction from verbs to directional auxiliary verbs in the serial verb construction and finally temporal markers implying an aspectual meaning. This also can be said that the notion of unidirectionality of grammaticalization process is true.

Regarding spatial and temporal relations, the semantic inheritance embedded in each directional marker can affect how each verb grammaticalizes to aspect markers and how the space and time are related. Directional verbs, especially the verbs ‘go’ and ‘come,’ sometimes can express temporal meanings. The temporal implication of ‘come’ and ‘go’ also occurs in many languages such as in some Indo-European languages. Givón (1973: 5) states that the verb to ‘come’ and the verb to ‘have’ in Portuguese signal perfective meanings. Lehmann (2002: 26) mentions that the verb to ‘go’ can present future tense in English and some other Romance languages.

First, the spatial meaning inherited in the verb ‘go’ in Black Tai, Thai, and Lao has evolved to a perfect aspect marker and also a continuous aspect marker. This evolution of the verb ‘go’ has taken place in other languages as well. It is also mentioned in Matisoff (1991: 407) the directional verb /qay/ ‘go’ in Lahu, a Tibeto-Burman language, can serve as a continuative marker; for

example, /vəʔ/ ‘wear’ followed by the directional verb /qay/ ‘go’ means ‘go on wearing.’

Secondly, the verb serial construction that the directional verbs /paj⁵/ ‘go’ and /ma:⁴/ ‘come’ following the other four directional verbs /khuun⁶/ ‘ascend,’ /loŋ⁴/ ‘descend,’ /khaw⁶/ ‘enter,’ and /ʔək³/ ‘go out’ is prevalent not only in Tai languages, but also in Sinitic languages such as Mandarin Chinese. The following Mandarin Chinese examples are shown below.

- (45) qing³ ni³ ba³ zhe⁴ zhang¹ zhao⁴ pian⁴ gua⁴ shang⁴ qu⁴
 please 2SG take this CL photo hang up go
 ‘Please hang this photo up (the wall).’
- (46) ni³ zou³ xia⁴ lai² gei³ wo³ kan⁴ kan⁴
 2SG walk down come give 1SG look look
 ‘Walk down here and let me look at it.’

The verbs ‘go’ and ‘come’ in this construction only refer to the direction of the outward movement and towards a landmark, which can be the speaker. However, the Chinese verbs /shang⁴/ ‘ascend’ and /xia⁴/ ‘descend’ normally do not appear alone as a main verb, so they can be considered as prepositions ‘up’ and ‘down’ rather than verbs, while in Tai languages these two verbs can be both a main verb and a serial verb. These two Chinese words cannot appear alone without a verb. It can be clearly seen that the appearance of a directional verb in the serial verb construction is a shared linguistic features of many languages in Southeast Asia, such as Tai, Chinese, Tibeto-Burman, Austroasiatic, and Austronesian.

To sum up, the functions of the six directional verbs in Black Tai are shown in the following Table 2:

Table 2: Summary of the functions of six directional verbs

	Main Verbs	Serial Verb	Perfective	Perfect	Continuous	Change in Degree	Resultative
/paj ⁵ / ‘go’	✓	✓	✓		✓		

Table 2: (Continued)

	Main Verbs	Serial Verb	Perfective	Perfect	Continuous	Change in Degree	Resultative
/ma: ⁴ / 'come'	✓	✓		✓			
/khun ⁶ / 'ascend'	✓	✓				✓	✓
/loŋ ⁴ / 'descend'	✓	✓				✓	✓
/khaw ⁶ / 'enter'	✓	✓					
/ʔɔk ³ / 'go out'	✓	✓					✓

Before the end of this paper, there are a few observations of certain directional verbs (‘go’ and ‘go out’) that are used differently in the comparison with other Tai languages, Thai and Lao. The most noticeable difference is that the verb ‘go’ in Thai following adjectival verbs can denotes an excessive degree of a state. For instance, /phɔːm⁵ paj¹/ in Thai means ‘too thin.’ However, this kind of cooccurrence is not shown in Black Tai. To denote an excessive degree, either word /e²/ ‘a lot’ or /hɛːŋ⁴/ ‘long time’ are placed after an adjectival verb; alternatively, the addition of /kəːn⁵ paj⁵/ ‘too much or too many’ behind an adjectival verb is also accepted. The directional verb /paj⁵/alone at the post position of adjectival verb is not found. Likewise, Lao has the same way to encode an excessive degree as Black Tai.

Secondly, an interesting difference in the grammaticalization degree of directional verbs in Black Tai and Thai is that the verb /ʔɔk³/ ‘go out’ in Black Tai spoken in Thailand and Lao has never appeared after adjectival and state verbs, but in Thai the verb ‘go out’ can co-occur with those adjectival and state verbs and serves as a sentence final particle emphasizing the state, such as /suaj³ ʔɔːk⁵/ which means something or someone is beautiful. The directional verb

/ʔɔ:k⁵/ ‘go out’ in Thai that comes after /suaj³/ ‘beautiful’ is assumed to grammaticalize to a final particle expressing opinion.

Thus, it can be seen that the grammaticalization of such directional verbs (‘go,’ and ‘go out’) in Black Tai, Lao, and Thai has developed unequally. The verbs ‘go’ and ‘go out’ in Thai yields more meanings and appears in more situations than those in Black Tai and Lao.

In addition, along the grammaticalization path of directional verbs both in Black Tai, and Thai, the grammaticalization stages usually overlap each other: the same word can appear in different positions and serve different grammatical functions. For instance, /fa:⁴ hɔ:ŋ⁶ ʔɔk³/ in Black Tai means ‘There is a thunder,’ which can be literally translated to ‘the sky cries out.’ In this example, the directional verb /ʔɔk³/ is considered as a compound word meaning ‘thunder.’ This kind of use is also found in Lao which also says ‘the sky cries out.’ Nevertheless, Thai does not use the verb ‘go out’ exactly the same: the verb ‘go out’ is not combined with the verb ‘cry.’

In conclusion, since this preliminary survey does not focus on the comparison of directional verbs in Black Tai, Thai and Lao, those observations of the differences among Black Tai, Thai, and Lao languages have not been studied thoroughly to find an explanation of how those directional verbs are used differently. A question has come up whether it is possible that the grammaticalization of the directional verbs in each language is developed unequally. It is recommended that there should be a further study on this issue for a future study.

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