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# Thai Motion Event Expressions — A Literature Review —

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## **1. Introduction**

Among various semantic types of serial verb constructions in verb-serializing languages including Thai, the type expressing motion events appears to be the most complicated both syntactically and semantically. Though this type of serial verb constructions has been popularly called 'directional serial verb constructions', in the present paper I will call them more simply and properly 'motion event expressions'. The entire structure of motion event expressions in a verb-serializing language is difficult to formulate because of the expressions' diversity and complexity. To my knowledge, there are three comprehensive studies of Thai motion event expressions, namely Thepkanjana (1986/2006), Muansuwan (2002) and Kessakul (2005). Their generalizations of the syntactic and semantic structures underlying the expressions have something similar to and something different from one another. The main purpose of this paper is to critically review the three studies and clarify similarities and differences among their analyses by focusing on their formulations with respect to the formal and conceptual structures of the expressions. In this paper, I examine particularly the following three points: (a) how wide the scope of each study is; (b) what kind of linguistic unit each study considers as the basic one for encoding a single motion event in Thai; and, (c) how each study defines the main verb in Thai motion event expressions. The findings of my examination in these respects are briefly summarized, as follows: (a) the analysis of Kessakul has the widest scope; (b) Thepkanjana assumes the most specific basic unit, while Muansuwan assumes the most abstract basic unit; and, (c) the definition of the main verb strikingly differs among them.

I suggest that crucial differences among the formulations proposed by the three studies imply their different postulations concerning the proper level of schematicity (or abstractness) at which grammatical constructions in Thai are described. Generally, the degree of schematicity of a linguistic construction is measured with the following rationale: The more specific and definite the constituents of a construction are, the lower the degree of schematicity of the construction is. If a construction involves a specific lexical item (e.g. particular verb and noun), the construction is regarded as less schematic (or specific). On the other hand, if a construction is composed of rather superordinate classes of lexical items (e.g. verb and noun phrases), the construction is considered as more schematic (or abstract). I would claim that the adequate level of schematicity of the basic unit for encoding a single motion event in Thai should be lower than the level Muansuwan assumes but slightly higher than the level Kessakul assumes, as graphically shown in Figure 1.

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low <b>←</b>	the degree of schematicity	→ high
<more specific=""></more>	<adequate></adequate>	<more abstract=""></more>
Thepkanjana's unit	Kessakul's unit	Muansuwan's unit

Figure 1. The Degree of Schematicity of the Basic Unit for Encoding a Single Motion Event in Thai

This paper is organized as follows. In Section 2, we will look closely at the three studies' accounts of the underlying structure of motion event expressions in Thai. We will examine firstly the scope of analysis, secondly the basic unit, and thirdly the definition of the main verb. And Section 3 summarizes all the findings of this research and discusses the adequate level of schematicity of the basic unit.

## 2. Comparison of the three studies

## 2.1. Scope of analysis

The path of motion is the core scheme of motion event (Talmy 1991/2000). This means that the path of a motion determines the overall temporal and spatial framework of the motion event in question. In Thai, the concept of 'path' is largely expressed by path verbs (such as *khâam* 'cross' and *loŋ* 'descend') and it is not uncommon that a single path is multi-dimensionally expressed by using more than one path verb, as exemplified in (1).

(1) <u>?òok phón</u> pratuu

exit pass gate

'(He) went out of the gate.' (Kessakul 2005: 144)

Kessakul names this kind of syntactic expansion 'magnification'. Thepkanjana and Muansuwan also note this frequently observed syntactic behavior of path verbs (or what they call directional verbs), which we will turn to discuss later on.

Kessakul correctly points out that in fact Thai grammar allows not only path verbs but also other types of motion verbs, such as manner verbs and deictic verbs, to undergo the process of magnification. A few examples are given below. Example (2) includes two manner verbs (*dəən* 'walk', *fàa* 'break through'), and example (3) two deictic verbs (*pay* 'go', *maa* 'come').

(2) <u>də</u>	on <u>fàa</u>	khwaan	n mûuut	klàp	bâan
wa	lk break through	darknes	s	return	home
'(H	Ie) walked back hon	ne, facing	, his way	through	the dark.' (Kessakul 2005: 143)
(3) <b>də</b> a	on won wian	<u>pay</u>	<u>maa</u>		
wa	lk circle	go	come		

'(He) walked back and forth from one place to another.' (Kessakul 2005: 144)

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Thus, magnification is a useful device to describe a motion event in a fine-grained manner in Thai. We may say that the more motion verbs are used, the more elaborately and precisely the motion event is described.

Furthermore, Kessakul also deals with expressions of a complex motion event involving two or more paths concatenated, as illustrated in (4).

(4) a. <i>khruu fiùk</i>	?òɔk	wîŋ	nam nâa	ı	loŋ	càak	thanŏn	thîi
trainer	start	run	take the	lead	descend	from	road	RELATIVIZER
thôət	sùu		tua mua	aŋ				
stretch	to		town					
'The trainer	took the	lead, star	rting to ru	un off the	road wh	ich leads	to the to	wn,
b. <i>khâw</i>	sùu	phoŋ yâ	а	lé?	phûm nà	íam	khâŋ tha	aŋ
enter	to	thicket		and	thorny b	ush	wayside	
(and) entered	ed the wa	yside thi	cket and	thorny bu	ush,			
c. <i>lát l5</i> ?			pay	taam	phúnm	thîi	khrù? ki	hrà?
take a short	cut along	g the side	go	along	place		rough	
nəən	sŭuŋ	lé?	lòm	lúik				
hill	high	and	mire	deep				

(and) took a shortcut along the rough truck, the high hill, and the deep mire.'

(Kessakul 2005: 31-32)

The three clauses (4a), (4b) and (4c) are serialized to represent the trainer's relocation along a macro-path composed of three paths in sequence. She calls this type of syntactic expansion 'recursion'.

More noteworthy is that with corpus data of Thai motion event expressions gathered from actual discourses (such as modern-day novels and elicited oral narratives), Kessakul has found the preferred styles of encoding spontaneous and caused motion event in Thai, as respectively indicated in (5a) and (5b).

(5) a. Spontaneous motion event: [manner verb + path verb + deictic verb]

b. Caused motion event: [cause verb] + [path verb + deictic verb] Thepkanjana and Muansuwan, on the other hand, do not mention preferred encoding styles. They do not analyze expressions like those in (2) to (4) above, either.

## 2.2. Basic Unit

#### 2.2.1. Thepkanjana's (1986/2006) Basic Unit

Thepkanjana claims that when more than one Thai motion verb is used to represent a single motion event, their linear order should be that in (6). Note that the simplified syntactic scheme (6) omits noun phrases which some of the constituent verbs possibly take. The verb phrase structure (6) is regarded as the basic unit for encoding a single motion event in Thai.

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(6) [A: initial verb] + [B + C + D1 + D2 + E: serial verbs]<sup>1</sup>

- B: verb signifying geometric shape of the path (e.g. won 'circle', khót 'zigzag')
- C: verb signifying direction with respect to the previous path (e.g. y5on 'reverse', th5y 'retreat')
- D1: verb signifying direction with respect to an object located in the outside world (e.g. *phàan* 'pass', *khâam* 'cross')
- D2: verb signifying direction resulting from interaction between the path and the outside world (i.e.  $kh\hat{a}w$  'enter',  $2\partial k$  'exit',  $kh\hat{a}m$  'ascend', log 'descend')<sup>2</sup>
- E: verb signifying direction with respect to speech act participant (i.e. *pay* 'go', *maa* 'come')

She calls a verb of the slot A 'initial verb' and verbs of the slots B to E 'serial verbs' which modify the initial verb. However, it is not obligatory that a verb of every slot be present, and therefore a verb of any slot has a chance to become the initial verb.

Figure 2 below shows the syntactic tree structure of the basic unit (6) that she has depicted. In this flat tree structure, a conventionally created verb phrase (VP1) binds all motion verb phrases of the six classes (VP2 through VP7) together. This verb phrase structure is of iteration, but not of recursion (cf. Figure 3 in Section 2.2.2).

<sup>&</sup>lt;sup>1</sup> Thepkanjana (1986: 204-206) remarks on an interesting exception, as follows. *càak* 'leave' from the class D1 in example (i) below, which conforms to the linear order (6), indicates the direction in which a given path proceeds with respect to an object in the external world (i.e. away from the source), whereas *càak* 'leave' in example (ii), which exceptionally occurs after the last verb of direction, simply expresses the source of the path. The latter function of *càak* 'leave' is similar to that of *thung* 'reach' in example (iii) which occurs in the same position as *càak* 'leave' in example (ii) and simply expresses the destination of the path.

(i) <i>kháw</i>	dəən	<u>càak</u>	thîi nîi	pay	léew			
he	A: walk	D1: leave	here	E: go	already			
'He alrea	'He already walked away from here.' (Thepkanjana 1986: 204)							
(ii) <i>kháw</i>	dəən	pay	<u>càak</u>	thîi nîi	léew			
he	A: walk	E: go	leave	here	already			
'He alre	ady walked away	from here.' (The	okanjana 1	1986: 204	4)			
(iii) <i>kháw</i>	piin	pay	<u>thừn</u>	yôət kh	ăw			
he	A: climb	E: go	<u>reach</u>	hilltop				
'He clin	nbed away and re	ached the hilltop.'	(Thepkar	njana 198	6: 205)			

She does not regards  $c\dot{a}ak$  'leave' in example (ii) as preposition, but it is not clear if she considers it to be full verb just like *thtuŋ* 'reach' in example (iii). While *thtuŋ* 'reach' after the last verb of direction can be negated, as in (iii'),  $c\dot{a}ak$  'leave' in the same position cannot, as in (ii')

(iii') <i>kháw</i>	piin	pay	mây	<u>thừŋ</u>	yôot khăw	
he	A: climb	E: go	not	<u>reach</u>	hilltop	
'He climbed away, not reaching the hilltop.'						
(ii') * <i>kháw</i>	dəən	pay	mây	<u>càak</u>	thîi nîi	
he	A: walk	E: go	not	leave	here	
(Intend	ded meaning) 'He	walked	away, no	t from he	ere.'	

<sup>2</sup> Normally, the four verbs of the class D2 are mutually exclusive.

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Figure 2. Thepkanjana's Basic Unit

Thepkanjana adds that an array of serial verbs from the classes B to E varies according to the semantic types of the initial verb from the class A, as in (7).

(7) a. [A: locomotion] + [B + C + D1 + D2 + E]

- b. [A: travel, accompanying motion, ballistic motion] + [C + D1 + D2 + E]
- c. [A: communication, transaction, change] + [E]
- d. [A: destruction, disappearance, excess state] + [E: pay 'go']

When the initial verb expresses the meaning of locomotion (e.g.  $d \Rightarrow n$  'walk') as in (7a), serial verbs from all the classes B to E can occur. When the initial verb expresses the meaning of travel (e.g.  $d \Rightarrow n th aa n$  'travel'), accompanying motion (e.g. 2aw 'take',  $b \Rightarrow ck$  'carry') and ballistic motion (e.g. yoon 'throw') as in (7b), a serial verb from the class B cannot occur. When the initial verb expresses the meaning of communication (e.g.  $b \Rightarrow ck$  'tell'), transaction (e.g. stuu 'buy') and change (e.g. plan 'change') as in (7c), only a serial verb from the class E can occur. And, when the initial verb expresses the meaning of destruction (e.g. thamlaay 'destroy'), disappearance (e.g. h aay 'disappear') and state (e.g.  $ph \approx n$  'expensive') as in (7d), only the verb pay 'go' can occur.<sup>3</sup>

Thepkanjana's generalization of the ordering restrictions on Thai motion verbs has drawn criticism from Muansuwan and Kessakul. Especially, the position and the status of verbs from the class B (*won* 'circle', *troŋ* 'go straight', *khót* 'zigzag', *chěe* 'veer') are the most controversial. For example, the verb *troŋ* 'go straight' in example (8) occurs after the verb from the class C y50n 'reverse'. This linear order of motion verbs does not conform to the generalization by Thepkanjana.

(8) wîŋ	yʻən	<u>troŋ</u>	maa
A: run	C: reverse	<u>B: go straight</u>	E: come

<sup>&</sup>lt;sup>3</sup> The latter two constructions denoting a figurative motion event, (7c) and (7d), are not within the scope of the studies of Muansuwan and Kessakul. Thepkanjana (2006: 130) also mentions other types of metaphorical motion expressions, as below.

(i) <i>dii</i>	<u>khûn</u>	(ii) <i>sŭay</i>	<u>?òɔk</u>	(iii) <i>pùay</i>	<u>maa</u>
good	ascend	beautiful	exit	ill	come
'(It) got b	etter.'	(She) was	s awfully beau	utiful.' '(He) has b	een ill.'

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'(He) came back straight, running.'

I think that verbs of the class B, except for the verb *won* 'circle', are not motion verbs but are stative verbs. Examples in (9) reveal that such verbs as *tron* 'straight', *khót* 'zigzag' and *chěe* 'oblique' by themselves cannot express a motion event.

(9) man  $\{ tron / khót / chěe \}$ 

PRONOUN {straight / zigzag / oblique}

'It was {straight / zigzag / oblique}.'

With a motion verb, these stative verbs function as a sort of adverb specifying a certain characteristic configuration of the path of motion, whose position in the serial verb construction is relatively free.

What is more, the demarcation between the classes D1 and D2 by Thepkanjana also has little relevance to the linear order restriction, although it is true that versatility of verbs from the class D2 (e.g.  $2\partial k$  'exit', *khûm* 'ascend') is much more remarkable than that of verbs from the class D1 (e.g. *phàan* 'pass', *khâam* 'cross'). In fact, the ordering between verbs from these two classes is not fixed. Sometimes a verb from the class D2 precedes a verb from the class D1, as seen in example (1) above (D2:  $2\partial k$  'exit' + D1: *phón* 'pass') and example (13) below (D2:  $2\partial k$  'exit' + won 'circle' + D1: *klàp* 'return').

#### 2.2.2. Muansuwan's (2002) Basic Unit

Muansuwan assumes the hierarchical structure (10) to be the underlying structure of Thai predicates of motion. This is taken to be the basic unit for encoding a single motion event in Thai.

(10)  $_{VP}[_{VP}$ 

The positions of the two underlined elements are invariable: a cause or manner verb occurs in the first position of a string of motion verbs, while a deictic verb in the last position. However, there are no obligatory elements in this unit and the ordering among directional verbs other than deictic verbs is free.

Figure 3 below gives a sample of the tree structure of the basic unit (10). In contrast to Thepkanjana's tree structure entailing a single node linking all motion verb phrases at once (Figure 2 in Section 2.2.1), Muansuwan's tree structure (Figure 3) may have a number of nodes, the number of which increases in proportion to the number of directional verbs included.

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Figure 3. Muansuwan's Basic Unit

The basic unit (10) (Figure 3) encompasses two different kinds of verb phrase structure, as indicated in (11).

(11) a. Recursive co-headed structure (VP-over-VP structure):

 $_{VP}[\cdots_{VP}[_{VP}[cause/manner-VP} + directional-VP] + directional-VP] + \cdots]$ b. Head-complement structure:  $_{VP}[V + deictic-V]$ 

The recursive co-headed structure consisting of a cause or manner verb and directional verbs other than deictic verbs (11a) is symmetric in the sense that the verbs in the structure have equal status, or in other words, the occurrence of one verb is not determined by another. The head-complement structure consisting of the last deictic verb and its preceding verb (11b) is asymmetric in the sense that the verbs in the structure do not have equal status, namely, one verb is the complement of the other. Since there is no verb phrase break between the last deictic verb and its preceding verb, an adverb (e.g.  $d\hat{u}ay$  fii tháaw baw 'with light footsteps') cannot be inserted between the two verbs, as instantiated by the infelicitous expression (12).

(12) * <i>malii</i>	dəən	?òɔk	won	klàp	yśən	<u>dûay fĩi tháaw baw</u>	pay
Malii	walk	exit	circle	return	reverse	with light footsteps	go
(Intended speaker.' (	0,			ıt, circlir	ng, back,	with light footsteps, a	away from the

However, in my opinion, the syntactic anomaly of example (12) can be semantically accounted for, as follows. The main function of deictic verbs is to indicate a certain deictic relation between a moving entity and a reference point (viz. the entity moves toward or away from the reference point). Once a deictic verb follows another motion verb, the very abstract meaning of the deictic verb becomes just subsidiary to the substantial motional meaning of the preceding motion verb. Therefore, the two verbs become semantically tied up and inseparable in form.

In Thai motion event expressions, an adverb can be put in any position except for the position in front of the deictic verb. Muansuwan (2002: 48) comments that we cannot explain reordering possibilities of an adverb if the structure is iterative (i.e. 'VP

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→ VP\*'<sup>4</sup> or 'VP → VP VP VP...' as in (6), Figure 2), but if we assume that adverbs adjoin to a verb phrase and that a motion event expression has a recursive structure (i.e. 'VP → VP VP' as in (10), Figure 3), we can account for multiple possible positions of an adverb. Based on this, she concludes that Thai motion event expressions have a recursive, rather than iterative, verb phrase structure. From my point of view, however, it is pointless to argue whether the nature of the verb phrase structure of the expressions is iterative or recursive. What is crucial for the underlying structure of the expressions is that, contrary to the abovementioned Muansuwan's claim, the ordering of directional verbs other than deictic verbs is not completely free, but indeed there is some linear order rule that those verbs abide by. In this regard, Kessakul (2005: 151) is right in saying that the linear order of Thai motion verbs only seems to be flexible due to the possible omission of verbs comprising the basic unit and also the possible recurrence of the unit (cf. example (4) above).

I endorse Kessakul's claim that the ordering of motion verbs in the basic unit is conditioned on their inherent aspectuality (viz. 'aktionsart'or lexcal aspect). In order to accurately formulate the linear order of Thai motion verbs, therefore, we must take into consideration aspectual classes of the verbs. Related to this is the way of interpreting example (13) (cited from Muansuwan 2002: 47).

(13) <i>malii</i>	dəən	?òɔk	won	klàp	yóən	pay	dûay fĭi tháaw baw
Malii	walk	exit	circle	return	reverse	go	with light footsteps
'Malii walked out, circling, back (along one path to the original place), and then went back							
(along another path) away from the speaker, with light footsteps.'							

One may feel that example (13) is not an expression of a simplex motion event. Rather, it seems to represent an event of a complex motion along two paths concatenated. To be precise, it is likely that the first four verbs (dəən 'walk', 230k' exit', won 'circle' and klàp 'return', which get together to express Malii's walking out, circling, toward a certain original place) are followed by two more verbs (y5on 'reverse' and pay 'go', which are combined to express her retracing her way away from a definite departure point), which leads us to interpret that the mover first walks out, circling, back to some original place, and then starts to retrace her way, proceeding along another path, away from that place. This interpretation has something to do with Kessakul's classification of Thai motion verbs (see Section 2.2.3 for the details). In Kessakul's opinion, the fifth verb y50n 'reverse' is a punctual directional verb whose position in the basic unit is prior to accomplishment path verbs (such as 230k 'exit', won 'circle' and klap 'return'). Punctual directional verbs (such as càak 'leave', tòk 'fall', thờy 'retreat', yóon 'reverse',  $r\hat{u}a\eta$  'drop off',  $l\hat{o}n$  'drop', *com* 'sink', etc.) designate the starting or completing phase of motion in a direction. To put it another way, they signal the inchoative or terminative aspect of motion. On the other hand, accomplishment path verbs represent the whole motion along a path.

2.2.3. Kessakul's (2005) Basic Unit

<sup>&</sup>lt;sup>4</sup> The asterisk \* here means that one or more verb phrases may be enumerated (cf. Filbeck 1975: 114).

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Similar to Thepkanjana, Kessakul considers that the basic unit for encoding a single motion event in Thai forms an iterative verb phrase structure, as shown in (14).<sup>5</sup>

- (14) [manner verb + directional verb + path verb + deictic verb]
  - a. Manner verb with durative aspect (e.g. wîŋ 'run', dəən 'walk')
  - b. Directional verb with punctual aspect (e.g. càak 'leave', yóon 'reverse')
  - c. Path verb with accomplishment aspect (e.g. phàan 'pass', khâw 'enter')
  - d. Deictic verb with no particular typical lexical aspect (e.g. maa 'come')

This unit may be expanded by means of 'magnification' and 'recursion', as explained in Section 2.1. Kessakul classifies Thai motion verbs into only four main categories in terms of their different inherent aspectual types. Typically, manner verbs (14a) have durative aspect; directional verbs (14b) have punctual aspect; path verbs (14c) have accomplishment aspect; and, deictic verbs (14d) have no typical lexical aspect. The basic unit (14) subsumes three different patterns, as listed in (15). The patterns (15a) to (15c) differ in the types of motion encoded.

(15) a. Pattern for spontaneous motion with volition and self-control by the figure (i.e. the moving entity):

[manner verb + directional verb + path verb + deictic verb]

None of the four verbs is indispensable

b. Pattern for spontaneous motion without volition and self-control by the figure:

[manner verb + directional verb + path verb + deictic verb]

A manner verb normally occurs<sup>6</sup>

c. Pattern for caused motion:

[cause verb] + [manner verb + directional verb + path verb + deictic verb]<sup>7</sup>

A cause verb and a path/deictic verb are indispensable<sup>8</sup>

<sup>&</sup>lt;sup>7</sup> Kessakul equates the latter part of the pattern (15c) with the pattern (15b) expressing non-volitional and non-self-controllable motion. However, as shown in the counterexample (i) below, the latter part of pattern (15c) may represent volitional and self-controllable motion (e.g. walking straight out of the house), when the former part of the pattern (15c) contains a verb of extended causation (such as *khŏn* 'transport, carry' and *nam* 'lead').

(i) <i>kháw</i>	khŏn	krapăw dəən	troŋ	?òɔk	pay	càak	bâan
he	carry	suitcase walk	straight	exit	go	from	house
'He carrie	ed his sui	tcase walking stra	ight out o	of the ho	use.' (Ke	ssakul 20	05: 211)

<sup>&</sup>lt;sup>5</sup> In passing, Kessakul categorizes directional verbs and path verbs that occur in an irregular position of the basic unit as preposition or marker of aspect/modality. In example (4a) above, for instance, the path verb 235k 'exit' and the directional verb càak 'leave' take place in an irregular position: 235k occurs before the manner verb  $w\hat{n}$  'run' and càak occurs after the path verb log 'ascend'. The two lexical elements 235k and càak in example (4a) do not express a substantial meaning, but function as a marker of inchoative aspect (235k 'start (< exit)') and as a preposition of ablative case (càak 'from (< leave)'), respectively. I concur with her view regarding function words derived from motion verbs.

<sup>&</sup>lt;sup>6</sup> This condition on the use of a manner verb in the pattern (15b) is a matter of pragmatics (see the following discussion in this section). We cannot ascribe this condition to the inherent lexical meanings of motion verbs. It is a fallacy to suppose that the lexical meanings of path verbs in Thai normally involve a volitional and self-controllable sense and because of this, those verbs alone are not used in the pattern (15b) (Kessakul 2005: 180-181).

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It is noteworthy that Kessakul sets up the slot for a cause verb (e.g. *yoon* 'throw', *lâak* 'drag') separated from the slot for a manner verb, which gives rise to the pattern (15c). As example (16) shows, it is possible for a cause verb (e.g. *phát* 'blow') and a manner verb (e.g. *pliw* 'fly, flutter') to co-occur.

(16) <i>lom</i>	<u>phát</u>	kradàat	<u>pliw</u>	?òɔk	pay	nôok	hôŋ
wind	blow	paper	<u>fly</u>	exit	go	outside	room
'The wind bl	ew the p	aper flying out of	the room	.' (Kessa	kul 2005	: 161)	

However, I think it is not necessary to divide the pattern for spontaneous motion into two sub-patterns (15a) and (15b) depending on whether or not the motion involves the moving entity's volition and self-control. We should notice that the condition that a manner verb normally occurs in the pattern (15b) may be cancelled when the described spontaneous motion has a considerable degree of reality and specificity and it is evaluated as definite at the time of speaking. The utterance (17b) exemplifies this.

(17) a. <i>k</i>	chùat	nán	Ізэу	?òɔk	maa	rŭu	yaŋ
ł	ottle	that	float	exit	come	or	not yet
6	Has that b						
b. <i>n</i>	nan		?òɔk	maa	léew		
I	PRONOU	N	exit	come	PERFE	CTIVE	
•	It has con	ne out alı	eady.'				

Usually we do not say the sentence (18) in isolation simply because its literal meaning per se does not exhibit enough reality and specificity.

(18) ? khùat	nán	?òɔk	maa
bottle	that	exit	come
'That bot			

Path verbs (such as  $2\partial k$  'exit') and deictic verbs (such as *maa* 'come') basically signify the path of motion and the deictic information regarding motion event, respectively, but not the cause or manner of motion, and if the subject noun phrase of these verbs refers to an entity without volition and self-control (e.g. bottle), we cannot easily imagine how it moves unless we have additional information about the cause (such as being thrown) or the manner (such as floating). By contrast, if the subject noun phrase of these verbs refers to a mover with volition and self-control (e.g. animate being), as in (19), we can readily imagine an event of its spontaneous motion.

(19) *kháw ?òɔk maa* PRONOUN exit come 'He came out.'

From our experiences in daily life, we know how a human being changes her position in space; she may walk, run, ride a bicycle, drive a car, and so on. As such, our world knowledge as to how things existing in the physical world change their position in

<sup>&</sup>lt;sup>8</sup> To encode a caused motion, a cause verb must be combined with either a path verb or a deictic verb which is capable of effecting accomplishment aspectual reading.

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ordinary situations induces the use of a manner verb in addition to directional verbs to express spontaneous motion of an entity without volition and self-control (e.g. *looy* 'float' in example (17a) expressing the bottle's spontaneous motion).

#### 2.3. Main Verb

In Thai, an isolating language, verbs have no obligatory morpho-syntactic coding of finiteness, and noun phrases adjacent to a verb have no clear distinction between the verb's arguments and non-arguments (cf. Bisang 1995, Diller 1988, Minegishi 1988, 2000, *inter aria*). For this reason, there are no morpho-syntactic criteria to determine the main verb in a clause in Thai. Presumably, this is a main factor backgrounding the intriguing fact that one of the three studies refrains from defining the main verb in Thai motion event expressions and the other two quite arbitrarily define it, as summarized below.

Thepkanjana does not define the main verb in the basic unit (6) [A] + [B + C + D1 + D2 + E], but she states that the initial verb is modified by non-initial verbs (serial verbs). This idea corresponds to the idea of Filbeck (1975: 124) that serial verbs express functional meanings in addition to the propositional meaning represented by the initial verb. However, Filbeck does not explicate what constitutes so-called propositional meaning.

Muansuwan thinks that a cause or manner verb (the initial verb) in the basic unit (10)  $_{VP}[_{VP}[_{VP}[_{VP}[_{VP}[cause/manner-VP + directional-VP] + directional-VP] + ...] + _{VP}[V + deictic-V]]'$  is the main verb, which conveys the motion-related main situation and is modified by directional information indicated by serial verbs. She also mentions the morphosyntactic characteristic of the main verb; namely, it cannot be without its required complement. But this is not the case for all Thai expressions. The predicate (20) serves as an example.

(20) priidaa	?aw	?òɔk	(càak	bâan)	pay
Priida	take	exit	(from	house)	go
(5.11.1		· · ·	(0 1	• ``	

'Priida took (something) out (from the house) away.' (Muansuwan 2002: 51-52)

Although Muansuwan regards the predicate including the main verb (cause verb ?aw 'take') taking no object noun phrase in (20) as ungrammatical, I claim that it is quite a natural utterance given an appropriate pragmatic setting (such that the interlocutors have common knowledge about the entity Priida took out away or that the speaker need not overtly name the entity for some other reasons). Based on my observation of actual tokens of Thai motion event expressions in natural discourse, I argue against her theoretical tenet. In particular, I argue that a priori postulate that head verbs have their required complements is not applicable to Thai. Crucially, fully entrenched argument structures of verbs have not yet emerged in Thai. Accordingly, grammaticality or well-formedness in Thai significantly differs from that in languages having established the comprehensive paradigms of grammatical categories and the firm argument structures.

Kessakul makes the following remark. In the pattern for spontaneous motion with volition and self-control by the figure (15a) '[manner verb + directional verb + path

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verb + deictic verb]', a path verb can function as the main verb. But she does not explicitly speak of the main verb in the other two patterns (15b) and (15c).<sup>9</sup>

I reject the idea that we have to determine the main verb in Thai motion event expressions. I maintain that Thai speakers can go on without determining the main verb (cf. Takahashi to appear).<sup>10</sup> I also disagree with the idea that the initial verb and non-initial verbs in the basic unit are in the modification (subordination-like) relationship.

## 3. Summary

A comparative summary is given in Table 1 below.

Table 1. Comparison of Three Comprehensive Studies on Thai Motion Event Expressions

Scope of analysis	Thepkanjana 1986/2006Constructions expressing spontaneous or extendedly caused motionevent (Thepkanjana 1986), Constructions expressing spontaneous orcaused motion event (Thepkanjana 2006); the path of spontaneousmotion may be of a figurative kind (metaphorical motion) <thepkanjana 1986="" considers="" event="" expressions="" involving<="" motion="" of="" td="">extended causation as directional serial verb constructions, whileThepkanjana 2006 considers both as directional serial verbconstructions&gt;</thepkanjana>	
	<i>Muansuwan 2002</i> Constructions expressing spontaneous or caused motion event	
	<i>Kessakul 2005</i> Constructions expressing spontaneous or caused motion event with one path (simplex motion event) or more than one path concatenated (complex motion event); the path of caused motion may be of a figurative kind (change of state, potential)	
Basic unit	Thepkanjana 1986/2006	
	Flat VP structure: $[A] + [B + C + D1 + D2 + E]$ , in which there is no obligatory element	
	B. geometric shape of the path	
	C. direction with respect to the previous path	

<sup>&</sup>lt;sup>9</sup> However, Kessakul (2005: 189, 199) suggests that the pattern (15c) is similar to the pattern of encoding caused motion in 'satellite-framed' languages (cf. Talmy 1991/2000), implying that she regards a cause verb in the pattern (15c) as the main verb.

<sup>&</sup>lt;sup>10</sup> Takahashi (to appear) presents the entire conceptual structure underlying Thai motion event expressions. The structure contains, apart from the basic unit or what she calls the core PROCESS component for locomotion, two peripheral components adjoining the basic unit: the preceding CAUSATION component for cause of motion (which corresponds to the first part of the pattern (15c)) and the following CHANGE (+STATE) component for arrival (and resultant state).

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D1. direction with respect to an object located in the outside world         D2. direction resulting from interaction between the path and the outside world         E. direction with respect to speech act participant (deixis)         1. [A : locomotion] + [B + C + D1 + D2 + E]         2. [A : travel; accompanying motion 'take' (Thepkanjana 1986) and 'carry' (Thepkanjana 2006); ballistic motion 'throw' (Thepkanjana 2006); ballistic motion 'throw' (Thepkanjana 2006)] + [C + D1 + D2 + E]         3. [A : communication; transaction; change] + [E]         4. [A : destruction; disappearance; excess state (Thepkanjana 1986)] + [E: pay 'go']         Muansuwan 2002         Hierarchical VP structure: \np[\np[\cup[Cup[Cup[Cup[Cause/manner-VP + directional-VP] + directional-VP] + \nvp[V + deictic-V]], in which there is no obligatory element; the ordering of directional verbs other than deicit verbs is free         Kessakul 2005         Flat VP structure: [manner verb (durative) + directional verb (punctual) + path verb (accomplishment) + deictic verb (neutral)]         1. Spontaneous motion with volition and self-control by the figure: [manner + direction + path + deixis], which may be expanded by magnification; a cause verb and a path/deictic verb are indispensable         2. Spontaneous motion without volition and self-control by the figure (part of caused motion event): [manner + direction + path + deixis], which may be expanded by magnification; a cause verb and a path/deictic verb are indispensable         Main verb       Thepkanjana 1986/2006         No main verb in the basic unit for encoding a single motion event		
outside world         E. direction with respect to speech act participant (deixis)         1. [A : locomotion] + [B + C + D1 + D2 + E]         2. [A : travel; accompanying motion 'take' (Thepkanjana 1986) and 'carry' (Thepkanjana 2006); ballistic motion 'throw' (Thepkanjana 2006)] + [C + D1 + D2 + E]         3. [A : communication; transaction; change] + [E]         4. [A : destruction; disappearance; excess state (Thepkanjana 1986)] + [E: pay 'go'] <i>Muansuwan 2002</i> Hierarchical VP structure: vp[ vp[···vp[ vp[cause/manner-VP + directional-VP] + directional-VP] + vp[V + deictic-V]], in which there is no obligatory element; the ordering of directional verbs other than deicit verbs is free <i>Kessakul 2005</i> Flat VP structure: [manner verb (durative) + directional verb (punctual) + path verb (accomplishment) + deictic verb (neutral)]         1. Spontaneous motion with volition and self-control by the figure: [manner + direction + path + deixis], which may be expanded by magnification and recursion; a manner verb is dispensable         2. Spontaneous motion without volition and self-control by the figure (part of caused motion event): [manner + direction + path + deixis], which may be expanded by magnification; a manner verb normally occurs         3. Caused motion: [cause] + [manner + direction + path + deixis], the latter part of which may be expanded by magnification; a cause verb and a path/deictic verb are indispensable <i>Main verb</i> Thepkanjana 1986/2006         No main verb in the basic unit for encoding a single motion event <i>Muansuwan 20</i>		D1. direction with respect to an object located in the outside world
<ul> <li>1. [A : locomotion] + [B + C + D1 + D2 + E]</li> <li>2. [A : travel; accompanying motion 'take' (Thepkanjana 1986) and 'carry' (Thepkanjana 2006); ballistic motion 'throw' (Thepkanjana 2006)] + [C + D1 + D2 + E]</li> <li>3. [A : communication; transaction; change] + [E]</li> <li>4. [A : destruction; disappearance; excess state (Thepkanjana 1986)] + [E: pay 'go']</li> <li><i>Muansuwan 2002</i></li> <li>Hierarchical VP structure: vp[ vp[···vp[ vp[cause/manner-VP + directional-VP] + directional-VP] +····] + vp[V + deictic-V]], in which there is no obligatory element; the ordering of directional verbs other than deicite verbs is free</li> <li><i>Kessakul 2005</i></li> <li>Flat VP structure: [manner verb (durative) + directional verb (punctual) + path verb (accomplishment) + deictic verb (neutral)]</li> <li>1. Spontaneous motion with volition and self-control by the figure: [manner + direction + path + deixis], which may be expanded by magnification and recursion; a manner verb is dispensable</li> <li>2. Spontaneous motion without volition and self-control by the figure (part of caused motion event): [manner + direction + path + deixis], which may be expanded by magnification; a cause verb and a path/deictic verb are indispensable</li> <li>Main verb</li> <li><i>Thepkanjana 1986/2006</i></li> <li>No main verb in the basic unit for encoding a single motion event Muansuwan 2002</li> <li>A cause or manner verb in the initial position in the basic unit is the main verb, which cannot leave out its required complement <i>Kessakul 2005</i></li> <li>In the pattern for spontaneous motion with volition and self-control by If single motion event</li> </ul>		
<ul> <li>2. [A : travel; accompanying motion 'take' (Thepkanjana 1986) and 'carry' (Thepkanjana 2006); ballistic motion 'throw' (Thepkanjana 2006)] + [C + D1 + D2 + E]</li> <li>3. [A : communication; transaction; change] + [E]</li> <li>4. [A : destruction; disappearance; excess state (Thepkanjana 1986)] + [E: pay 'go']</li> <li><i>Muansuwan 2002</i> <ul> <li>Hierarchical VP structure: vp[ vp[·vvp[ vp[cause/manner-VP + directional-VP] + directional-VP] + ····] + vp[V + deictic-V]], in which there is no obligatory element; the ordering of directional verbs other than deicitc verbs is free</li> <li><i>Kessakul 2005</i></li> <li>Flat VP structure: [manner verb (durative) + directional verb (punctual) + path verb (accomplishment) + deictic verb (neutral)]</li> <li>Spontaneous motion with volition and self-control by the figure: [manner + direction + path + deixis], which may be expanded by magnification; a manner verb is dispensable</li> <li>Spontaneous motion event): [manner + direction + path + deixis], which may be expanded by magnification; a cause verb and a path/deictic verb are indispensable</li> </ul> </li> <li><i>Main verb Thepkanjana 1986/2006</i> No main verb in the basic unit for encoding a single motion event <i>Muansuwan 2002</i> A cause or manner verb in the initial position in the basic unit is the main verb, which cannot leave out its required complement <i>Kessakul 2005</i> In the pattern for spontaneous motion with volition and self-control by</li></ul>		E. direction with respect to speech act participant (deixis)
<ul> <li>'carry' (Thepkanjana 2006); ballistic motion 'throw' (Thepkanjana 2006)] + [C + D1 + D2 + E]</li> <li>3. [A : communication; transaction; change] + [E]</li> <li>4. [A : destruction; disappearance; excess state (Thepkanjana 1986)] + [E: pay 'go']</li> <li><i>Muansuwan 2002</i></li> <li>Hierarchical VP structure: vp[ vp[··vp[ vp[cause/manner-VP + directional-VP] + directional-VP] + ···] + vp[V + deictic-V]], in which there is no obligatory element; the ordering of directional verbs other than deicit verbs is free</li> <li><i>Kessakul 2005</i></li> <li>Flat VP structure: [manner verb (durative) + directional verb (punctual) + path verb (accomplishment) + deictic verb (neutral)]</li> <li>1. Spontaneous motion with volition and self-control by the figure: [manner + direction + path + deixis], which may be expanded by magnification and recursion; a manner verb is dispensable</li> <li>2. Spontaneous motion without volition and self-control by the figure: [manner + direction + path + deixis], which may be expanded by magnification; a manner verb normally occurs</li> <li>3. Caused motion: [cause] + [manner + direction + path + deixis], the latter part of which may be expanded by magnification; a cause verb and a path/deictic verb are indispensable</li> <li><i>Main verb</i></li> <li><i>Thepkanjana 1986/2006</i></li> <li>No main verb in the basic unit for encoding a single motion event.</li> <li><i>Muansuwan 2002</i></li> <li>A cause or manner verb in the initial position in the basic unit is the main verb, which cannot leave out its required complement.</li> <li><i>Kessakul 2005</i></li> <li>In the pattern for spontaneous motion with volition and self-control by by</li> </ul>		1. $[A : locomotion] + [B + C + D1 + D2 + E]$
<ul> <li>4. [A : destruction; disappearance; excess state (Thepkanjana 1986)] +         [E: pay 'go'] Muansuwan 2002 Hierarchical VP structure: vp[ vp[···vp[ vp[cause/manner-VP +         directional-VP] + directional-VP] +···] + vp[V + deictic-V]], in which         there is no obligatory element; the ordering of directional verbs other         than deicitc verbs is free Kessakul 2005         Flat VP structure: [manner verb (durative) + directional verb (punctual)         + path verb (accomplishment) + deictic verb (neutral)]         1. Spontaneous motion with volition and self-control by the figure:         [manner + direction + path + deixis], which may be expanded by         magnification and recursion; a manner verb is dispensable         2. Spontaneous motion without volition and self-control by the figure         (part of caused motion event): [manner + direction + path + deixis],         which may be expanded by magnification; a manner verb normally         occurs         3. Caused motion: [cause] + [manner + direction + path + deixis], the         latter part of which may be expanded by magnification; a cause verb         and a path/deictic verb are indispensable         Main verb         Thepkanjana 1986/2006         No main verb in the basic unit for encoding a single motion event         Muansuwan 2002         A cause or manner verb in the initial position in the basic unit is the         main verb, which cannot leave out its required complement         Kessakul 2005         In the pattern for spontaneous motion with volition and self-control by the</li> </ul>		'carry' (Thepkanjana 2006); ballistic motion 'throw' (Thepkanjana
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A cause or manner verb in the initial position in the basic unit is the main verb, which cannot leave out its required complement <i>Kessakul 2005</i> In the pattern for spontaneous motion with volition and self-control by		No main verb in the basic unit for encoding a single motion event
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In the pattern for spontaneous motion with volition and self-control by		
		Kessakul 2005

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I have found that the basic unit demonstrated by each study consists of lexical components with different degrees of schematicity: Thepkanjana's and Kessakul's unit comprises less schematic (more specific) lexical components, while Muansuwan's unit includes more schematic (less specific) lexical components (cf. Figure 1 in Section 1). Thepkanjana has categorized directional verbs into too specific classes, assuming that verbs for the geometric shape of path (the class B) as one of the main constituents of the basic unit and that the ordering between verbs for the direction with respect to an object located in the outside world (the class D1) and verbs for the direction resulting from interaction between the path and the outside world (the class D2) is fixed. Kessakul has divided the basic unit for spontaneous motion into two sub-patterns (the patterns (15a) and (15b)), assuming that the notion of volition and self-control of the mover is part of the inherent lexical meaning of path verbs, which is incompatible with the sense of spontaneous motion of a non-volitional and non-self-controllable entity. Owing to these, their basic units are too specific. On the other hand, Muansuwan argues for free reordering of directional verbs other than deictic verbs in the basic unit, assuming that there is no linear order constraint on the verbs and there is no need to classify the verbs into further subclasses. This leads to her basic unit being too abstract.

I believe that the level of schematicity of the adequate description of grammatical constructions in general is fairly low. Put differently, the basic grammatical constructions are mostly 'verb-class-specific constructions' in Croft's (2003: 56-58) terminology. In the case of Thai motion event expressions, the adequate description of the basic unit for encoding a single motion event is in the form of 'aspect-type-specific constructions' like those formulated by Kessakul. I believe that the level of schematicity of Kessakul's basic unit is adequate for necessarily and sufficiently (that is, neither strictly nor loosely) conditioning the formation of motion event expressions in Thai. To recapitulate, Kessakul classifies motion verbs, which are the major constituents of motion event expressions, into four main classes in terms of their typical lexical aspects (or the salient phases of motion event which they typically represent) as well as their linear order in the basic unit: (a) durative manner verbs, (b) punctual directional verbs, (c) accomplishment path verbs, and (d) deictic verbs with neutral aspect. However, as I have stated earlier, it is the case that none of these motion verbs are obligatory constituents of the basic unit, and we cannot and do not have to determine the main verb in the unit.

From what we have discussed in this paper, it is evident that the syntax and the semantics of Thai motion event expressions cannot be straightforwardly analyzed with the principles of the linguistic theories that have been developed based primarily on analyses of Indo-European languages. Linguists working on Thai can draw on the theories only after carefully examining whether the preconditions of the theories fit the nature of Thai. They should always apply the linguistic theories to analyses of Thai grammar with caution.

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