

A HISTORICAL STUDY OF TIME MARKERS IN THAI

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0 Introduction

To understand an event fully, one has to locate it in real time. Such a calendric expression as ‘at 8 a.m. on the first of May 2003’ can best fulfill the location task. However, in real life, for the purpose of everyday communication, one does not always want such an exact time to locate all events. Instead, one usually wants to understand an event in relation to another event, whether it occurs before or after that event or at the same time. When we talk about the time of an event in relation to a certain point of time or a temporal reference point, we are talking about time deixis.

According to Fillmore (1997), time deixis refers to the time at which the communication act takes place. Linguistic time markers or time expressions as the formal properties for time deixis include both calendric expressions such as 8 o’clock, to-day, the past ten years, and non-calendric expressions which range from bound morphemes known as tense to lexical items and composite lexical constructions such as now, then, this, that, when, in the past. This paper deals with non-calendric expressions excluding tense which is not used in Thai. These time expressions will be referred to as deictic time markers or sometimes time markers.

The paper studies deictic time markers within a limit of a simple sentence and a subordinating clause in a complex sentence. Its purpose is first to examine the structure of the deictic time markers; secondly, to group the time markers into semantic types on the basis of their relation to the present moment or in relation to another event; and thirdly, to study how time markers reveal the concept of time in Thai. Since materials studied are drawn from the four periods: Sukhothai (SK) (1283-1350), Ayutthaya (AY) (1350-1767), Mid-Ratanakosin (RN) (1851-1910), and Modern Thai (MT), a historical study is therefore taken into account.

It will be assumed that the materials of all four periods are phonologically more or less of the same dialect, that is, the Bangkok dialect. Following this assumption, the transcription of the materials of all four periods is based on the phonemic system of Bangkok Thai given at the end of this paper¹.

1 Structure of Thai deictic time markers

Comrie (1985) proposed three classes of time expressions: lexical items, lexically composite expressions and grammatical categories. Since in Thai, time is expressed lexically, the third class is not relevant here.

1.1 Lexical items as deictic time markers

By lexical item, I mean a one-word structure. Based on the data of the four periods, deictic time markers of one-word structure can be grouped into two types: monosyllabic and non-monosyllabic words. The monosyllabic time markers are few in number. They are *nii*⁴⁵ (SK, AY, RN, MT) (this)² ‘now’, *nan*⁴⁵ (SK, AY, RN, MT) (that) ‘before’, *naa*⁴² (SK, AY,

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RN, MT) (front) ‘future’, $k\omega\omega n^{22}$ (SK, AY, RN, MT) (preceding) ‘before’, $m\mu a^{42}$ (SK, AY, RN, MT) (point of time) “when”, $d\omega m^{33}$ (AY, RN, MT) (origin) ‘before’. Except for the last two which can occur independently, these monosyllabic time markers must co-occur with a preposition in a preposition phrase (see 1.2.2) or a noun in a noun phrase (see 1.2.1). Some of the preposition phrases developed into lexical time markers in later periods as discussed below. As can be seen, these monosyllabic time markers except for $m\mu a^{42}$ do not basically denote time. nii^{45} , nan^{45} are demonstratives; naa^{42} is a noun denoting a body organ, a face; $k\omega\omega n^{22}$ is an adverb meaning ‘in front’.

Non-monosyllabic lexical time markers include $bat^{22} nii^{45}$ ‘now’ (SK, AY, RN, MT), $m\mu a^{42} k\omega\omega n^{22}$ ‘before’ (SK, AY, RN, MT), $t\epsilon\epsilon^{22} k\omega\omega n^{22}$ ‘before’ (SK, AY, RN, MT), $t\epsilon\epsilon^{22} k\omega\omega n^{22} nii^{45}$ ‘before’ (RN, MT), $diaw^{24} nii^{45}$ ‘now’ (RN, MT), $phaay^{33} la\eta^{24}$ ‘later, time ahead’ (AY, RN, MT), $phaay^{33} naa^{42}$ ‘time ahead’ (RN, MT), $la\eta^{24} la\eta^{24}$ (MT) ‘recently’. These lexical time markers either developed from noun phrases or preposition phrases.

From noun phrases:

- | | | |
|------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| i) | $bat^{22} nii^{45}$ | < bat^{22} ‘breath’ nii^{45} ‘this’ |
| ii) | $m\mu a^{42} k\omega\omega n^{22}$ | < $m\mu a^{42}$ ‘point of time’ $k\omega\omega n^{22}$ ‘preceding period’ |
| iii) | $phaay^{33} la\eta^{24}$ | < $phaay^{33}$ ‘side’ $la\eta^{24}$ ‘back’ |
| iv) | $phaay^{33} naa^{42}$ | < $phaay^{33}$ ‘side’ naa^{42} ‘front’ |
| v) | $la\eta^{24} la\eta^{24}$ | < $t\omega\omega n^{33} la\eta^{24} la\eta^{24}$ < $t\omega\omega n^{33} la\eta^{24}$ < $t\omega\omega n^{33}$ ‘portion’
$la\eta^{24}$ ‘back’ |

from preposition phrases:

- | | | |
|------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| vi) | $t\epsilon\epsilon^{22} k\omega\omega n^{22}$ | < $t\epsilon\epsilon^{22}$ ‘from’ $k\omega\omega n^{22}$ ‘preceding period’ |
| vii) | $t\epsilon\epsilon^{22} k\omega\omega n^{22} nii^{45}$ | < $t\epsilon\epsilon^{22}$ ‘from’ $k\omega\omega n^{22}$ ‘preceding period’ nii^{45} ‘this’ |

Some observations should be made here. First, from the Sukhothai period until now there has been an increase of lexical time markers in the non-monosyllabic group. By way of contrast, the monosyllabic lexical time markers seem to be a closed class with members almost all of which do not occur independently. Secondly, some non-monosyllabic markers are analyzed as phrases in the Sukhothai period and probably in the Ayutthaya period. They have become lexical words, no longer analyzable synchronically, in the latter two periods. These include $bat^{22} nii^{45}$, $m\mu a^{42} k\omega\omega n^{22}$ and $t\epsilon\epsilon^{22} k\omega\omega n^{22}$. Thirdly, the noun phrases formed in the later periods show the use of nouns denoting a portion or a part as the head noun. These lexical time markers include $phaay^{33} la\eta^{24}$ ‘in the future’ with the head noun ‘ $phaay^{33}$ ’ meaning ‘a side’; $phaay^{33} naa^{42}$ ‘in the future’ again with ‘ $phaay^{33}$ ’ meaning ‘a side’; $t\omega\omega n^{33} la\eta^{24}$ ‘afterwards’ with the head noun $t\omega\omega n^{33}$ meaning ‘a portion’. Lastly, the reduplication in $t\omega\omega n^{33} la\eta^{24} la\eta^{24}$ may illustrate that $t\omega\omega n^{33} la\eta^{24}$ has not yet been finalized as a one-word time marker. $la\eta^{24} la\eta^{24}$ which shows a further development from $t\omega\omega n^{33} la\eta^{24} la\eta^{24}$, however occurs as a one-word time marker. (see also 1.2.1 b) Fourthly, the time markers given here usually denote a stretch of time except $bat^{22} nii^{45}$ which means the present point of time. $diaw^{24} nii^{45}$ may denote either a point of time or a period of time, i.e. the present time.

1.2 Lexical composites as deictic time markers

Lexical composite deictic time markers can be grouped into two types of construction: a noun phrase, and a prepositional phrase. Each construction displays several patterns. But although some new patterns are added, what actually gives variety is the introduction of new lexical items in the slots of the patterns.

1.2.1 Noun phrase deictic time markers

Noun phrase deictic time markers in the data of the four periods illustrate three main patterns:

- a) temporal noun – demonstrative *nii*⁴⁵/*nan*⁴⁵
- b) temporal noun – spatial noun *naa*⁴²/*laŋ*²⁴ – direction word *pay*³³/*maa*³³
- c) spatial noun - locative preposition - demonstrative pronouns *nii*⁴⁵/*nan*⁴⁵

a) Temporal noun - demonstrative *nii*⁴⁵/*nan*⁴⁵

- viii) *mua*⁴² *nan*⁴⁵ ‘the past’ (SK, AY, RN)
- ix) *mua*⁴² *nii*⁴⁵ ‘the present’ (SK, AY, RN)
- x) *chua*⁴² *nii*⁴⁵ ‘this life time’ (SK)
- xi) *chuaŋ*⁴² *nii*⁴⁵/*nan*⁴⁵ ‘this/that period’ (RN, MT)
- xii) *tɔɔn*³³ *nii*⁴⁵/*nan*⁴⁵ ‘this/that moment’ (MT)
- xiii) *raŋ*⁴⁵ *yaŋ*⁴⁵ *nii*⁴⁵/*nan*⁴⁵ ‘the present/past period’ (MT)
- xiv) *khə*³³ *naŋ*²² *nii*⁴⁵/*nan*⁴⁵ ‘at present/at that time’ (AY, RN, MT)
- xv) *wee*³³ *laa*³³ *nii*⁴⁵/*nan*⁴⁵ ‘the present/past time’ (MT)

It can be seen that in the first slot, a variety of nouns occur. The data show that in the Sukhothai and Ayutthaya periods, only temporal nouns, *mua*⁴² ‘when’, *chua*⁴² ‘life time’, *khə*³³ *naŋ*²² ‘while’ are used in this slot whereas in the Ratanakosin and Modern Thai periods, words with spatial notions as a portion *tɔɔn*³³ or distance *raŋ*⁴⁵ *yaŋ*⁴⁵ are introduced. The first nouns except *mua*⁴² usually denote a portion or a part in the stretch of time specified by *nii*⁴⁵/*nan*⁴⁵. The last example, *wee*³³ *laa*³³ *nii*⁴⁵ (time-this) ‘now’ in Modern Thai illustrates a semantically indefinite temporal word which when modified by demonstrative *nii*⁴⁵ denotes a specific portion of time i.e. the present time.

*mua*⁴² is interpreted as a noun in the Sukhothai period and Ayutthaya because of the evidence such as *thuk*⁴⁵ *mua*⁴² ‘every time’ where *mua*⁴² is apparently a noun. (In *mua*⁴² *nan*⁴⁵/*nii*⁴⁵ where *nii*⁴⁵ and *nan*⁴⁵ are demonstratives, *mua*⁴² *nan*⁴⁵/*nii*⁴⁵ denote the present period and the past period respectively. Because *mua*⁴² could be followed by a noun or a noun phrase as in *mua*⁴² *chua*⁴² *phoo*⁴² *kuu*³³ (the time - the life time - father - I) ‘in my father’s life time’, it is easy for *mua*⁴² to be grammaticalized into a preposition ‘when’ in later periods as in *mua*⁴² - *wee*³³ *laa*³³ - *pɛet*²² - *naa*³³ *liŋ*⁴⁵ *kaa*³³ - *wan*³³ *nii*⁴⁵ (MT) (when - time - eight - o’clock - today) ‘at 8 o’clock today’.

Another observation must be made for *mua*⁴². In the Ayutthaya period there were a great number of occurrences of *mua*⁴² followed by a verb phrase that ends with *nan*⁴⁵, for example, *mua*⁴² - *rap*⁴⁵ *praŋ*²² *thaaŋ*³³ - *ŋaa*³³ *haan*²⁴ - *nan*⁴⁵ - *mii*³³ - *khon*³³ - *maa*³³ - *duu*³³ - *maak*⁴² (when - eat - food - that - have - man - come - see - much) ‘When eating, many people came to look at us). Here it is likely that *mua*⁴² was modified by a kind of

verb nominal, with nan⁴⁵ a demonstrative adjective marking the construction a noun phrase.

b) Temporal noun - spatial noun naa⁴²/laŋ²⁴ - (pay³³/maa³³)

- xvi) maa⁴² naa⁴² ‘the time ahead, the future’ (SK, RN)
- xvii) tɔɔn³³ laŋ²⁴ ‘recently’ (MT)
- xviii) tɔɔn³³ laŋ²⁴ laŋ²⁴ ‘recently’ (MT)
- xix) raɯ⁴⁵ yaɯ⁴⁵ laŋ²⁴ ‘in the immediate past’ (MT)
- xx) tɔɔn³³ laŋ²⁴ maa³³ ‘in the recent past to now’ (MT)
- xxi) khaaŋ⁴² naa⁴² pay³³ ‘in the future’ (MT)

This pattern appears most in Modern Thai and the lexical composites in this pattern have certain restrictions. One cannot have *tɔɔn³³ naa⁴², *raɯ⁴⁵ yaɯ⁴⁵ naa⁴² or *khaaŋ⁴² laŋ²⁴ to convey temporal meaning. Because of the restriction, tɔɔn³³ laŋ²⁴, khaaŋ⁴² naa⁴², raɯ⁴⁵ yaɯ⁴⁵ laŋ²⁴ are likely to become compound words in later time. In fact, phaay³³ laŋ²⁴, which first appeared in the Ayutthaya period, was most probably a noun phrase which has become in Modern Thai a non-monosyllabic lexical time marker (see 1.1). The use of naa⁴² ‘front’ and laŋ²⁴ ‘back’ with spatial notions illustrate the front/back orientation as will be discussed later in section 3.

tɔɔn³³ laŋ²⁴ laŋ²⁴ also found only in Modern Thai shows an extension of the construction where the spatial word is reduplicated. From this reduplicated expression, laŋ²⁴ laŋ²⁴ ‘recently’, a lexical time marker is derived.

In the Ratanakosin period maa³³ ‘come’ and pay³³ ‘go’ appeared after the non-monosyllabic temporal nouns such as phaay³³ laŋ²⁴ maa³³ (recent past-come) ‘later (in the past)’. From then, temporal expressions meaning a period of time may be followed by pay³³ or maa³³ with temporal relation to the present time, if not otherwise specified (see Section 3); thus we have khaaŋ⁴² naa⁴² pay³³ (future-go) ‘in the future’.

c) Spatial noun - locative preposition - demonstrative pronoun nii⁴⁵/nan⁴⁵

Deictic time markers of this type are found only in Modern Thai data. These are:

- xxii) laŋ²⁴ caak²² nan⁴⁵ ‘afterwards’
(back-from-that)
- xxiii) laŋ²⁴ caak²² nii⁴⁵ (pay³³) ‘from now (on)’
(back-from-this-go)
- xxiv) kɔɔn²² naa⁴² nii⁴⁵ ‘before now’
(preceding time-front-this)
- xxv) kɔɔn²² naa⁴² nan⁴⁵ ‘before that time’
(preceding time -front-that)

These time markers are best explained by means of metaphors i.e. the back of the referential time, nan⁴⁵ or the front of the referential time, nii⁴⁵. It should be pointed out

here that there are prepositions laŋ^{24} caak^{22} ‘after’ and kɔɔn^{22} naa^{42} ‘before’ used in Modern Thai, for example:

- 1) laŋ^{24} caak^{22} - soŋ^{24} khraam^{33} - look^{42} - khraŋ^{45} - thii^{42} - sɔɔŋ^{24}
(after - war - world - time - two)
After World War II
- 2) kɔɔn^{22} naa^{42} - ʔuʔ^{22} bat^{22} tiʔ^{22} heet^{22} - khraŋ^{45} - nan^{45}
(before - accident - time - that)
Before that accident

Considering the structure of the deictic time markers proposed above, i.e. spatial noun – locative preposition – demonstrative pronouns nii^{45} / nan^{45} , it is reasonable to say that the prepositions are derived from the temporal noun phrases rather than the other way around; general considerations of grammaticalization paths would also suggest this.

1.2.2 Preposition phrase deictic time markers.

The term "preposition phrase deictic time marker" can be used to refer to preposition phrases that occur as composite units functioning as time adverbials for example,

- 3) tɛɛ^{22} nan^{45} maa^{33} - khaw^{24} - kɔʔ^{42} - may^{42} - maa^{33} - ʔiik^{22} - ləəy^{33}
(since then - he - then - not - come - again - (not any more))
Since then he never came again.

Preposition phrase deictic time markers usually contain nii^{45} ‘this’ or nan^{45} ‘that’ which are analyzed here as demonstrative pronouns. A few preposition phrase deictic time markers contain naa^{42} , a noun meaning ‘face’ or ‘the front part’. The preposition phrase deictic time marker in the Sukhothai period was constructed with a particular pair of prepositions: tɛɛ^{22} (from) mua^{33} (to) as in tɛɛ^{22} nii^{45} mua^{33} naa^{42} ‘from now till the time ahead’. In the Ayutthaya period, this preposition phrase has become tɛɛ^{22} nii^{45} mua^{42} naa^{42} with a change of tone in mua^{33} . Following are some preposition phrase time markers that appeared in the last two periods studied.

- | | | |
|---------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| xxvi) | tɛɛ^{22} nii^{45} pay^{33}
(from - this - go) | ‘from now on’ (RN, MT) |
| xxvii) | tɛɛ^{22} nan^{45} maa^{33}
(from - that - come) | ‘from that time’ (RN, MT) |
| xxviii) | nay^{33} wee^{33} laa^{33} diaw^{33} kan^{33}
(in - time - one - together) | ‘at the same time’ (RN, MT) |
| xxix) | taŋ^{42} tɛɛ^{22} nan^{45} maa^{33}
(from - that - come) | ‘since then’ (RN, MT) |

- xxx) $\text{nay}^{33} \text{may}^{42} \text{chaa}^{45}$ ‘soon’ (MT)
 (in - not - slow)
- xxxi) $\text{taŋ}^{42} \text{tɛɛ}^{22} \text{nii}^{45} \text{tɔɔ}^{22} \text{pay}^{33}$ ‘from this time’ (MT)
 (since - this - connect - time)

As can be seen, most time markers above contain the initial boundary or the source prepositions tɛɛ^{22} or $\text{taŋ}^{42} \text{tɛɛ}^{22}$. The time marker $\text{nay}^{33} \text{may}^{42} \text{chaa}^{45}$, which first appeared in Modern Thai, seems to be a loan translation from an English expression ‘in no time’.

1.3 Deictic temporal prepositions and subordinators

Most deictic time markers discussed above contain the words nii^{45} ‘this’ or nan^{45} ‘that’ which serve as the temporal referential point for the temporal interpretation. nii^{45} ‘this’ is interpreted as coinciding with the present time. nan^{45} ‘that’ refers to the time mentioned earlier in the text and usually it is the time before the present time. Some time markers such as $\text{phaay}^{33} \text{laŋ}^{24}$, $\text{mua}^{42} \text{kɔɔn}^{22}$, $\text{tɛɛ}^{22} \text{kɔɔn}^{22}$ which do not contain the words nii^{45} and nan^{45} , unless specified otherwise, refer to the locution time of the utterance as the temporal referential point. The deictic temporal prepositions and subordinators are different. They mark the noun or noun phrase, in case of preposition, or the subordinating clauses in case of subordinators as the temporal referential point. For example $\text{thəŋ}^{24} \text{diaw}^{24} \text{nii}^{45}$ ‘until now’ thəŋ^{24} marks $\text{diaw}^{24} \text{nii}^{45}$ as the temporal terminal point.

1.3.1 Deictic temporal prepositions

From the Sukhothai period until the modern time, there are both inherent temporal prepositions such as

- xxxii) mua^{42} ‘when’ (SK, AY, RN, MT)
 xxxiii) $\text{taŋ}^{42} \text{tɛɛ}^{22}$ ‘since’ (RN, MT)
 xxxiv) con^{33} ‘till’ (RN, MT)

and grammaticalized temporal prepositions such as

- xxxv) tɛɛ^{22} ‘since’ (RN, MT)
 xxxvi) nay^{33} ‘in’ (AY, RN, MT)
 xxxvii) caak^{22} ‘from’ (MT)
 xxxviii) thəŋ^{24} ‘to, till’ (MT)

thəŋ^{24} and caak^{22} are inherent verbs meaning ‘to arrive’ and ‘to depart’. They have been grammaticalized into locative prepositions ‘to’ and ‘from’ respectively. As derived temporal markers, they convey the meanings of terminal point and initial points of time respectively. nay^{33} ‘in’, a locative preposition, grammaticalized from a noun, is similarly used as a temporal preposition. tɛɛ^{22} is most probably grammaticalized from a borrowed Burmese verb meaning ‘to begin’.

1.3.2 Deictic temporal subordinators

As has been mentioned, temporal subordinators mark the subordinating clause immediately after them as the temporal reference to the event in the main clause of a complex sentence. In the data, thirteen temporal subordinators are found:

xxxix)	mua ⁴²	‘when’	SK	AY	RN	MT
xl)	tiam ³³ tee ²²	‘since’	SK	-	-	-
xli)	khra ⁴⁵	‘when’	-	AY	RN	-
xlii)	kwa ²²	‘till’	-	AY	RN	MT
xliii)	con ³³	‘until’	-	AY	RN	MT
xliv)	phoo ³³	‘when, as soon as’	-	AY	RN	MT
xlvi)	con ³³ kwa ²²	‘until’	-	-	RN	MT
xlvi)	khə ³³ na ²²	‘when, while’	-	-	RN	MT
xlvi)	kon ²²	‘before’	-	-	RN	MT
xlvi)	la ²⁴ ca ²²	‘after’	-	-	-	MT
xlix)	kon ²² na ⁴²	‘before’	-	-	-	MT
l)	wee ³³ la ³³	‘when’	-	-	-	MT
li)	toon ³³	‘when’	-	-	-	MT

As can be seen from the list above, only mua⁴² has been used as a temporal subordinator since Sukhothai, while tiam³³ tee²² and khra⁴⁵ are now obsolete. Besides, several subordinators are synonyms, for example mua⁴², khra⁴⁵, wee³³ la³³, toon³³ all mean ‘when’. Moreover, several temporal subordinators are made up from a combination of two synonymous words such as con³³ kwa²² both of which mean ‘till’, or they are derived from noun phrases such as la²⁴ ca²² from la²⁴ ca²² na⁴⁵, kon²² na⁴² from kon²² na⁴² na⁴⁵. In Modern Thai, a temporal noun as wee³³ la³³ ‘time’ and toon³³ ‘period of time’ are also used as temporal subordinators. Below are examples of the temporal subordinating clauses in complex sentences:

- 4) toon³³ - khaw²⁴ - hok²² lom⁴⁵ - chan²⁴ - may⁴² - yuu²² - baan⁴²
(time - he - fall - I - not - stay - home)
‘When he fell, I was not home.’
- 5) mua⁴² - kuu³³ - khun⁴² - yay²² - daay⁴² - sip²² kaaw⁴² - khaw⁴², ...
(when - I - up - big - get - nineteen - year, ...)
‘When I was nineteen years old, ...’

2 Semantic types of deictic time markers

In order to locate an event in a time line, a temporal point of reference is needed. The deictic temporal point of reference linguists usually mention is the zero point of reference (Comrie, 1985; Lyons, 1995) which coincides with the present moment (Comrie, 1985) or the locution time of utterance (Lyons, 1995). However, the necessary temporal reference point does not always have to coincide with the locution time of utterance, it can be another event identifiable in a context either in an adjacent phrase or clause or in a larger text. In this article two types of temporal reference point are assumed: the locution time of utterance - or in this paper the time when the text was written - and the text time reference -

which in this paper can be found in a subordinating clause or phrase, or is alternatively present in surrounding text. Comrie (1985) called the first type of temporal reference the absolute time reference and the second, the relative time reference. Comrie's terms will be adopted because they are generally known but from time to time, the terms 'text time reference' will be used for the latter type or reference.

In discussing semantic types of temporal relations or connections between the main clause and its subordinating clause in English, Givón (1993) mentioned altogether eight types of relations. They are given here with an example of the temporal subordinator which conveys the semantic type in the bracket: precedence (before), subsequence (after), simultaneity (while), point coincidence (as), terminal boundary (till), initial boundary (since), and intermediacy (between). He also mentioned 'when' as a generic time subordinator which can convey several semantic relations, for example, 'when' can indicate subsequence as well as simultaneity:

When he left home, she felt ill. (Subsequence)

When she walked back home, it started to snow. (Simultaneity)

We will use these terms with some modifications. First, in connection with the terms 'precedence' and 'subsequence', we will use Kortmann's (1997) terms 'posteriority' and 'anteriority' respectively instead. The reason is that the two terms given by Kortmann are more consistent with the other terms in Givón's set in the sense that all terms now refer directly to the temporal reference point. Givón's terms, precedence and subsequence, refer rather to the clauses in relation to the temporal reference point than directly to the temporal reference point itself. Secondly, we will include 'point coincidence', 'intermediacy' and 'simultaneity' under the same terms, 'simultaneity'.

Thus, in discussing semantic types of the deictic time markers either as absolute time reference or relative time reference, we will be referring to the following semantic types: anteriority, posteriority, simultaneity, terminal boundary, initial boundary and generic 'when'. These terms are primarily Givón's terms (1995) with some terms introduced by Kortmann (1997).

2.1 Absolute time reference

As mentioned above, when the temporal point of reference coincides with the present moment or is situated relative to the present moment, there is absolute time reference. In Thai, this is usually displayed by the inclusion of *nii*⁴⁵ in the time markers. However some of the time markers in this type do not have *nii*⁴⁵, especially those in the anteriority sub-type. The five sub-types identified are: simultaneity, anteriority, initial boundary, posteriority and terminal boundary.

2.1.1 Simultaneity

When the time of the time markers is the same as that expressed in the locution time, we have the simultaneity semantic type, for example in

- 6) bat²² nii⁴⁵ - phom²⁴ - khəw²⁴ - pəət²² - kaan³³ praŋ²² chum³³
 now - I - request - open - meeting
 Now I would like to declare open the meeting.

The event ‘open the meeting’ occurs at the time bat²² nii⁴⁵ ‘now’ which coincides with the locution time. Below are the time markers in this sub-type with the indication of the periods when they are found.

lii)	bat ²² nii ⁴⁵	SK	AY	RN	MT
liii)	chua ⁴² nii ⁴⁵	SK	-	-	-
liv)	mua ⁴² nii ⁴⁵	SK	AY	RN	-
lv)	mua ⁴² lun ³³ nii ⁴⁵	SK	AY	-	-
lvi)	diaw ²⁴ nii ⁴⁵	-	-	RN	MT
lvii)	tɔɔn ³³ nii ⁴⁵	-	-	RN	MT
lviii)	chuan ⁴² nii ⁴⁵	-	-	RN	MT
lix)	wee ³³ laa ³³ nii ⁴⁵	-	-	RN	MT
lx)	khə ³³ na ²² nii ⁴⁵	-	-	RN	MT
lxi)	pat ²² cu ³³ ban ³³ (nii ⁴⁵)	-	-	-	MT

It can be seen that some of the time markers in the simultaneity sub-type are now obsolete and many are introduced in the two latter periods. Two sub-types can be distinguished in simultaneity. One is ‘the point of time’ sub-type. The other is ‘the period of time’ sub-type. In the Sukhothai period, bat²² nii⁴⁵ seemed to indicate the second sub-type. It has been changed to the first sub-type in Modern Thai. diaw²⁴ nii⁴⁵ can be in either sub-type whereas the rest of the time markers in the above list are in the second sub-type.

2.1.2 Posteriority

When the event in the sentence occurred before the locution time, we have the posteriority type, for example in,

- 7) kɔɔn²² - nii⁴⁵ - khaw²⁴ - tua³³ - lek⁴⁵
 before - this - he - body - small
 Before, he was slim.

The event ‘being slim’ occurred before the locution time or the present time. The following time markers are in this type:

lxii)	mua ⁴² kɔɔn ²²	SK	AY	RN	MT
lxiii)	tɛɛ ²² kɔɔn ²²	SK	AY	RN	MT
lxiv)	tɛɛ ²² kɔɔn ²² nii ⁴⁵	-	-	-	MT
lxv)	kɔɔn ²² naa ⁴² nii ⁴⁵	-	-	-	MT
lxvi)	kɔɔn ²² nii ⁴⁵	-	-	-	MT

The data show that several posteriority markers are coined in Modern Thai. It is interesting to see that in tɛɛ²² kɔɔn²² nii⁴⁵ found in Modern Thai, nii⁴⁵ is added in analogy with other nii⁴⁵ constructions probably to refer to the zero point or the present time.

2.1.3 Initial boundary

- 8) caak²² nii⁴⁵ pay³³ - khun³³ - may⁴² - khuan³³ - maa³³ - haa²⁴ - phom²⁴ - ?iik²²
 (from now on - you - not - should - come - see - I - again)
 From now on, you should not come to see me any more.

Time markers indicating the initial boundary type include the following:

lxvii)	tɛɛ ²² nii ⁴⁵	SK	AY	-	-
lxviii)	tɛɛ ²² nii ⁴⁵ pay ³³	-	AY	RN	MT
lxix)	tɔɔ ²² pay ³³ nii ⁴⁵	-	-	-	MT
lxx)	caak ²² nii ⁴⁵ pay ³³	-	-	-	MT

Again, time markers in the initial boundary type include nii⁴⁵, the word for the zero point. The markers for initial boundary increase from tɛɛ²² ‘since’, found since Sukhothai to grammaticalized prepositions from verbs, tɔɔ²² ‘connecting’ and caak²² ‘from’, found only in Modern Thai. It must be noted that all initial boundary time markers, since they have nii⁴⁵ as the starting point, convey future time. The use of the direction word pay³³ ‘go’ indicating ‘time forward’ emphasizes future time.

2.1.4 Anteriority

Anteriority markers include naa⁴² ‘front’ and laŋ²⁴ ‘back’ from the front-back axis as in:

- 9) laŋ²⁴ caak²² nii⁴⁵ raw³³ khon³³ caɿ²² dii³³ khun⁴²
 (after - this - likely - will - good - up)
 After this, we should become better.

lxxi)	phaay ³³ laŋ ²⁴	-	AY	RN	MT
lxxii)	phaay ³³ laŋ ²⁴ pay ³³	-	-	-	MT
lxxiii)	phaay ³³ naa ⁴² (pay ³³)	-	-	-	MT
lxxiv)	laŋ ²⁴ caak ³³ nii ⁴⁵	-	-	-	MT
lxxv)	khaaŋ ⁴² naa ⁴² pay ³³	-	-	-	MT

Time markers with laŋ²⁴ ‘back’, which implies a point behind the zero point, express the time after the zero point. Similarly, the word naa⁴² ‘front’ indicates time ahead of the zero point. Again the use of the direction word pay³³ ‘go’ emphasizes time after the zero point or in the future.

2.1.5 Terminal boundary

The data available show only two terminal boundary time markers as absolute time references: thəŋ²⁴ tɔɔn³³ nii⁴⁵ ‘until now’ and con³³ (thəŋ²⁴) diaw²⁴ nii⁴⁵ ‘until now’.

- 10) thəŋ²⁴ tɔɔn³³ nii⁴⁵ yaŋ³³ may⁴² mii³³ thaŋ³³ rak⁴⁵ saa²⁴
 (till now - still - not - have - way - cure)
 Till now there is still no way to cure ‘it’.

- lxxvi) thəŋ²⁴ tɔɔn³³ nii⁴⁵ ‘until now’ (MT)
 lxxvii) con³³ (thəŋ²⁴) diaw²⁴ nii⁴⁵ ‘until now’ (MT)

These markers with nii⁴⁵ or diaw²⁴ nii⁴⁵ as the zero point mark the present time as the end point of a stretch of time.

The diagram below is an attempt to summarize the semantic types of the deictic time markers of the absolute time reference group.¹

2.2 Relative time reference

In the following two sentences the temporal reference point for the event in the main clauses is not the locution time but another event. In sentence 11, the reference point is nan⁴⁵, which must be identified from the text. This is referred to as relative time reference. In Thai, the time markers indicating the relative time reference usually include nan⁴⁵ ‘that’. However, when the time markers function as the subordinator of a subordinating clause, the subordinating clause functions as the relative reference for the main clause.

- 11) laŋ²⁴ caak²² nan⁴⁵ - khaw²⁴ - duu³³ - dii³³ - khən⁴²
 after - he - look - good - up
 Afterwards, he looked better.
- 12) phɔɔ³³ - khaw²⁴ - ʔɔɔk²² - caak²² - lif⁴⁵ - kɔʔ⁴² - thuuk²² - yin³³
 as - he - out - from - elevator - then - touch - shoot
 As he got out of the elevator, he was shot.

In the first example, the event ‘looked better’ occurs relative to nan⁴⁵. In order to locate real time, one has to look for an identification of nan⁴⁵ in the text. It is however sufficient that the event ‘looked better’ occurs after the reference point nan⁴⁵ without having to look for the real time. In the second example, the subordinator phɔɔ³³ indicates the temporal relation between the event in the main clause and that in the subordinating clause in the manner that both occur at the same time or simultaneously.

Below are semantic types of time markers in the relative time reference group. It can be noticed that similar semantic types occur as those for the absolute reference group.

2.2.1 Simultaneity

Some sentence examples are given here:

- 13) nay³³ - wee³³ laa³³ - nan⁴⁵ - may⁴² - mii³³ - khay³³ - yuu²² - baan⁴²
 in - time - that - not - have - who - stay - home
 At that time, no one was home.
- 14) khaw²⁴ - thuuk²² - yin³³ - raʔ⁴⁵ waan²² - khap²² - rot⁴⁵ - pay³³ - hua²⁴ hin²⁴
 he - touch - shoot - between - drive - car - go - Huahin
 He was shot while he was driving to Huahin.

¹ Editorial note: the manuscript as it came to us had a diagram placeholder at this point, but the intended diagram was either not received or misplaced, and we regret that we were unable to obtain it before proceeding to publication. We offer our apologies to Pranee.

lxxviii)	nay ³³ wee ³³ laa ³³ nan ⁴⁵ 'at that time'	-	-	-	MT
lxxix)	raɿ ⁴⁵ waan ²² nan ⁴⁵ 'during that time'	-	-	RN	MT
lxxx)	chuan ⁴² nan ⁴⁵ 'in that period of time'	-	-	-	MT
lxxxi)	khə ³³ naɿ ²² nan ⁴⁵ 'during that time'	-	-	-	MT
lxxxii)	khə ³³ naɿ ²² (subordinator) 'while'	-	-	RN	MT
lxxxiii)	phəw ³³ (subordinator) 'as soon as'	-	-	RN	MT
lxxxiv)	raɿ ⁴⁵ waan ²² (subordinator) 'while, as soon as'	-	-	-	MT

In the first example which is a simple sentence, the event, yuu²² baan⁴² 'stay home' occurred at the same time as nan⁴⁵ 'that' serving as a relative time reference. In the second sentence, the event in the subordinating clause with raɿ⁴⁵ waan²² as a subordinator occurs at the same time as the event in the main clause. In other words, the subordinating clause serves as the reference temporal point. Again, some time markers indicate a point of time (phəw³³, khə³³ naɿ²²) while others mark the stretch of time (nay³³ wee³³ laa³³ nan⁴⁵, raɿ⁴⁵ waan²² nan⁴⁵). The relative reference time markers of the simultaneity type were infrequently attested in the first two periods, whereas in the latter two periods they are common in their occurrence.

2.2.2 Posteriority

- 15) nat⁴⁵ - phop⁴⁵ - nay³³ - rua³³ - kəw²² - rua³³ - ɿəw²²
 appointment - meet - in - ship - before - ship - out
 (We) made an appointment to meet in the ship before it left the port.

lxxxv)	kəw ²² naa ⁴² nan ⁴⁵ 'before that time'	-	-	-	MT
lxxxvi)	kəw ²² naa ⁴² nan ⁴⁵ khun ⁴² pay ³³ 'before that time'	-	-	-	MT
lxxxvii)	kəw ²² (subordinator) 'before'	-	AY	RN	MT

The posteriority time markers listed above indicate that the temporal relative reference point nan⁴⁵ occurred in the past, after, or in subsequence to the event in the simple sentence. Similarly, the event in the subordinating clause with kəw²² as the subordinator occurred following or after the event in the main clause. In Givón's terms, the event in the main clause preceded the temporal relative reference nan⁴⁵.

- 16) kɔɔn²² - naa⁴² - nan⁴⁵ - chan²⁴ - yuu²² - chiaŋ³³ may²²
 before - that - I - stay - Chiangmai
 Before that, I stayed in Chiangmai.

Between kɔɔn²² naa⁴² nan⁴⁵ and kɔɔn²² naa⁴² nan⁴⁵ khun⁴² pay³³, the latter indicates the event deeper in time before the relative reference nan⁴⁵. (see Section 3)

2.2.3 Anteriority

- 17) khaw²⁴ - klap²² - baan⁴² - laŋ²⁴ caak²² - sɔɔp²² - set²²
 he - return - home - after - examination - finish
 He went back home after he finished with his exam.

lxxxviii)	laŋ ²⁴ caak ²² nan ⁴⁵	-	-	RN	MT
	‘after that’				
lxxxix)	laŋ ²⁴ caak ²² nan ⁴⁵ maa ³³	-	-	-	MT
	‘after that’ (past)				
xc)	laŋ ²⁴ caak ²² nan ⁴⁵ pay ³³	-	-	-	MT
	‘after that’ (future)				
xc i)	tɔɔ ²² maa ³³ phaay ³³ laŋ ²⁴	-	-	-	MT
	‘after that, afterwards’				
xc ii)	laŋ ²⁴ caak ²² (subordinator)	-	-	RN	MT
	‘after’				

Although nan⁴⁵ marks the time anterior to the event involved, it does not have to only refer to anterior time in the past, it can also be used to refer to time ahead in the future. In other words, it only marks events subsequent to nan⁴⁵, whether or not nan⁴⁵ refers to the past or future event:

- 18) (raw³³ - caŋ²² - pay³³ - thun²⁴ - room³³ - wan³³ - can³³ - naa⁴²) laŋ²⁴ - caak²² - nan⁴⁵ - riik²² - sɔɔŋ²⁴ - wan³³ - cun³³ - caŋ²² - pay³³ - paa³³ riit⁴²
 (we - will - go - arrive - Rome - Monday - next) - back - from - that - more - two - day - so - will - go - Paris
 (We will arrive in Rome next Monday.) Two days after that, we will go to Paris.
- 19) laŋ²⁴ - caak²² - nan⁴⁵ - maa³³ - khaw²⁴ - khen²⁴ reŋ³³ - khun⁴²
 back - from - that - come - he - strong - up
 After that time/afterwards, he became stronger.

Sentences 18 and 19 show that nan⁴⁵ ‘that’ can be a relative time reference before the zero point or after the zero point, depending on the context. If the context is not specified, the common interpretation would be that nan⁴⁵ ‘that’ indicates a time before the zero point and if specified, nan⁴⁵ refers to a point of time in the future. It must be observed that pay³³ ‘go’ and maa³³ ‘come’ help mark time in the future and time in the past respectively.

2.2.4 Initial boundary

Initial boundary subordinators found in the data include *tiam*³³ *tɛɛ*²² ‘since’ which was used only in the Sukhothai period, and *taŋ*⁴² *tɛɛ*²² which is used in the later periods, for example:

- 20) *phii*⁴² - *phua*²⁴ - *phuu*⁴² - *ʔaay*⁴² - *taay*³³ - *caak*²² - *phua*²⁴ - *tiam*³³ *tɛɛ*²² - *yaŋ*³³ - *lek*⁴⁵
(brother - we - man - eldest - die - from - us - since - still - small)
Our eldest brother died when he was small.

- 21) *taŋ*⁴² - *tɛɛ*²² - *khaw*²⁴ - *maa*³³ - *thəŋ*³³ - *kɔŋ*⁴² - *dii*³³ - *khun*⁴²
(since - he - come - she - then - good - up)
Since he came, she has become better.

Besides subordinators, a prepositional phrase *tɛɛ*²² *nan*⁴⁵ is found marking an initial boundary.

- 22) *tɛɛ*²² - *nan*⁴⁵ - *maa*³³ - *thuk*⁴⁵ - *khon*³³ - *kɔŋ*⁴² - *mii*³³ - *khwaam*³³ - *suk*²²
from - that - come - every - man - then - have - happiness
From that time on, everyone was happy.

2.2.5 Terminal boundary

This semantic type is found only in a complex sentence marking the temporal relations between the events in the main clause and a subordinating clause. The subordinating clause conveys the terminal boundary, for example:

- 23) *thon*³³ - *yu*²² - *kwaa*²² - *caŋ*²² - *sin*⁴² - *ʔaa*³³ *yu*⁴⁵ (AY)
endure - stay - till - finish - age
(They have to) endure until their lives end.

xciii)	<i>kwaa</i> ²² ‘till’	SK	AY	-	-
xciv)	<i>con</i> ³³ <i>kwaa</i> ²² ‘till’	-	-	RN	MT
xcv)	<i>con</i> ³³ ‘till’	-	-	-	MT

In Modern Thai, *kwaa*²² does not convey the terminal boundary but posteriority, for example:

- 24) *kwaa*²² - *khaw*²⁴ - *caŋ*²² - *klap*²² - *luuk*⁴² - *kɔŋ*⁴² - *lap*²² - *lɛɛw*⁴⁵ (MT)
before - he return - child - then - asleep - already
Before he returned, his child has already fallen asleep.

2.2.6 The generic “When”

*mua*⁴² can convey several temporal meanings: simultaneity, anteriority, for example:

Simultaneity:

- 25) mʉa⁴² - chua⁴² - phɔɔ⁴² - kuu³³ - kuu³³ - bam³³ rəɔ³³ - kɛɛ²² - phɔɔ⁴² - kuu³³
(SK)

(when - life - time - father - I - I - please - to - father - I)
During my father's life time, I pleased him.

Anteriority:

- 26) mʉa⁴² - khaw²⁴ - taay³³ - loŋ³³, baan⁴² kɔŋ⁴² thuuk²² - khaay²⁴ (MT)
(when - he - die - down - house - then - touch - sell)
When/after he passed away, the house was sold.

Posteriority:

- 27) mʉa⁴² - thəɔ³³ - klap²² - maa³³ - khaw²⁴ - taay³³ - pay³³ - lɛɛw⁴⁵
when - she - return - come - he - die - go - already
When she returned, he already passed away.

In fact, there is no need to have a distinct subordinator for the above semantic types. The context itself indicates the ordering of the events. Most probably because of this, temporal subordinators were few in the earlier periods.

Besides mʉa⁴², the Ayutthaya period displayed khran⁴⁵, and phɔɔ³³, both of which can also denote several semantic relations. phɔɔ³³ is still used in Modern Thai whereas khran⁴⁵ is now obsolete.

3 Deictic markers and concept of time

In this section deictic time markers will be studied in terms of metaphors to see how time is conceived of by the Thais. Fillmore (1977) mentioned two types of time metaphor in English in connection with time deixis. The first is the moving time metaphor in which time is the moving object. The other is what I call the standing time metaphor in which time is a static object. The study of deictic time markers in Thai also can be illustrated via these two types of metaphors, with different orientations.

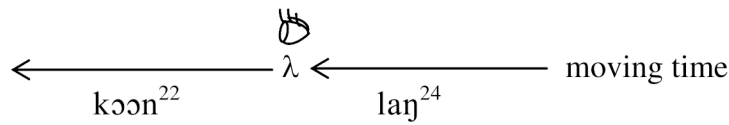
3.1 The moving time metaphor

When the following set of deictic time markers are examined, two groups can be distinguished on the basis of the words kɔɔn²² 'preceding' and laŋ²⁴ 'behind, back':

- | | |
|-------------------------------------------------------------------|------------------------------------------------------|
| xcvi) tɛɛ ²² kɔɔn ²² 'before' | xcix) phaay ³³ laŋ ²⁴ 'future' |
| xcvii) mʉa ⁴² kɔɔn ²² 'before' | c) wan ³³ laŋ ²⁴ 'future' |
| xcvii) wan ³³ kɔɔn ²² 'the previous day(s)' | |

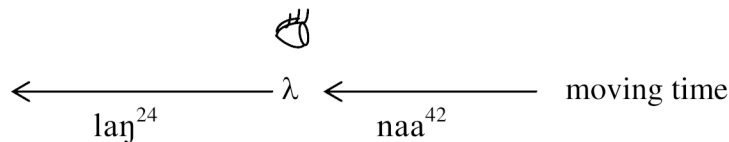
Considering that all deictic time markers above with kɔɔn²² convey the past time or the preceding time and all deictic markers with laŋ²⁴ convey the future or the time to come, it is reasonable to think of time as a moving object. If a speaker stands with his face in the same direction as the moving time and the time moves from behind his back, the time that he sees must be that which passed him and preceded him. The time behind his back is unseen, he can refer to it as the time behind: phaay³³ laŋ²⁴ (side-back), wan³³ laŋ²⁴ (day-

back). Because the time has yet to pass him, it is in the future. The following diagram illustrates moving time and the speaker orientation.



- | | | | |
|-------|------------------------------------|------|------------------------|
| ci) | tɛɛ⁴ koon²² ‘before’ | civ) | phaay³³ lan²⁴ ‘future’ |
| cv) | mha⁴² koon²² ‘before’ | cv) | (wan³³ lan²⁴ ‘future’) |
| ciii) | (wan³³ koon²² ‘the previous days’) | | |

If the speaker changes his orientation and turns his back to the past, facing the moving time, he will now see the future as the time ahead. The deictic time marker phaay³³ naa⁴² (side-ahead) ‘future’ illustrates the moving time metaphor with the new orientation. toun³³ lan²⁴ ‘the past’ and lan²⁴ lan²⁴ ‘recent past’ also illustrate the past in the new orientation.



- | | | | |
|------|---------------------------|------|------------------------|
| cix) | toun³³ lan²⁴ ‘past time’ | cix) | phaay³³ naa⁴² ‘future’ |
| cx) | lan²⁴ lan²⁴ ‘past time’ | cx) | wan³³ naa⁴² ‘future’ |
| cvi) | phaay³³ lan²⁴ ‘past time’ | | |

3.2 The standing time metaphor

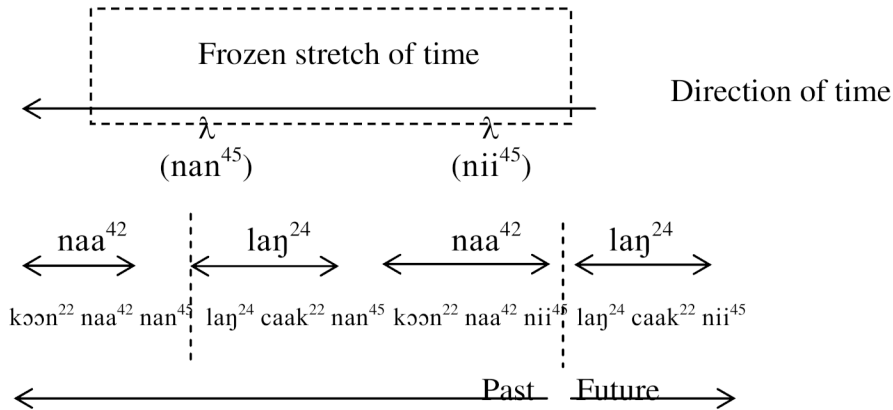
Time is always moving but we can freeze a portion on the real time line. When we do this, we have the standing time metaphor. The following sets of deictic markers indicate two static temporal points: nan⁴⁵ ‘that’, and nii⁴⁵ ‘this’.

- | | | |
|--------|-------------------------|-------------------------|
| cx) | lan²⁴ caak²² nan⁴⁵ | lan²⁴ caak²² nii⁴⁵ |
| cxii) | koon²² naa⁴² nan⁴⁵ | koon²² naa⁴² nii⁴⁵ |
| cxiii) | caak²² nan⁴⁵ maa³³ | caak²² nii⁴⁵ pay³³ |
| cxiv) | tan⁴² tɛɛ²² nan⁴⁵ maa³³ | tan⁴² tɛɛ²² nii⁴⁵ pay³³ |

The words lan²⁴ ‘back’ and naa⁴² ‘front’ indicate the back portion and front portion of the static points nan⁴⁵ and nii⁴⁵. The time is moving in the same direction as in the first type of metaphor only in this metaphor, we stop it for the purpose of sequencing the events. The words caak²² and tan⁴² tɛɛ²² seem to confirm the static status of the reference points: lan²⁴ caak²² nan⁴⁵, (the back portion from that), ‘after that, afterwards’. Because nii⁴⁵ ‘this’ is usually conceived as the present time, lan²⁴ caak²² nii⁴⁵, caak²² nii⁴⁵ pay³³, tan⁴² tɛɛ²² nii⁴⁵ pay³³ refer to time beyond the present or time in the future.

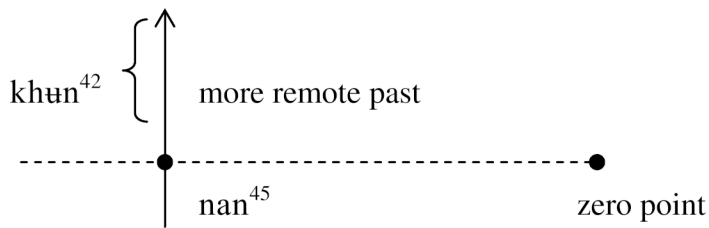
The direction word maa³³ ‘come’ and pay³³ ‘go’ seem to give the direction towards and from the zero point. This is evident from the fact that time markers denoting the past can co-occur with maa³³ except for *koon²² naa⁴² nan⁴⁵ maa³³ and *koon²² naa⁴² nii⁴⁵

maa³³. Time markers denoting the time in the future can co-occur with pay³³ ‘go’ and not with maa³³ ‘come’. It is possible to explain why *kɔɔn²² naa⁴² nii⁴⁵ maa³³ is not acceptable. This is because nii⁴⁵ is the zero point and therefore there is no distance for maa³³. As for *kɔɔn²² naa⁴² nan⁴⁵ maa³³, it is probable that the time is too remote from the nii⁴⁵ point and maa³³ does not seem possible. The following diagram is an attempt to illustrate the standing time metaphor:



3.3 The time layer metaphor

So far we have the horizontal axis of time, which gives us the picture of a sequence of events. However, we also conceive time in a vertical line with the previous time ‘above’ the present time. A temporal expression in Thai reflects this concept of time metaphor: kɔɔn²² - naa⁴² - nan⁴⁵ - khun⁴² - pay³³ (preceding-that-up-go) ‘Before the past period, the remote past period’. The vertical axis reflects the layers of the periods and again pay³³ is used as time far away from the speaker.



If we look at the list of time markers, we can see that we have more expressions for the present and the past than for the future. This may reveal that a Thai speaker feels more familiar with the present and the past and therefore, has more temporal expressions to refer to it with. With fewer expressions for the future, it probably means that he has no experience of the future and thus has no necessity to refer to hypothetical future events in detail. It is also apparent that the concepts of time revealed by the moving time metaphor and the standing time metaphor serve as the basis for the coining of new deictic temporal expressions in modern Thai.

4 Conclusion

In conclusion, the study of time markers from the four periods shows that time markers in Modern Thai are larger in number than those in the other three periods. In fact, there was a sharp increase already in the Ratanakosin period. The time markers in the two latter periods especially in Modern Thai show not only more time markers but also longer time markers. The long time markers are either doublets such as *con*³³ *kwaa*²² ‘until’ or phrases such as *tɔɔ*²² *pay*³³ *khaŋ*⁴² *naa*⁴² ‘in the future’. Phrasal time markers can be either noun phrases such as *lan*²⁴ *caak*²² *nan*⁴⁵ ‘afterwards’ or preposition phrases such as *taŋ*⁴² *tɛɛ*²² *nan*⁴⁵ *maa*³³ ‘from that time, since then’.

It is seen that in the Sukhothai period demonstrative pronouns *nii*⁴⁵ and *nan*⁴⁵ and the noun meaning ‘face’ have been extended to give temporal meanings. From the Ayutthaya period nouns denoting a distance have been used in temporal expressions. In Modern Thai grammaticalized prepositions from verbs such as *caak*²² ‘from’, *thəŋ*²⁴ ‘to’ are used also as time markers. Thus, it can be said that more and more words are added to the time marker lexicon and only a few words become obsolete and disappear. Consequently, synonyms in time markers are not rare. For ‘now’, one may have *bat*²² *nii*⁴⁵, *diaw*²⁴ *nii*⁴⁵, *tɔɔn*³³ *nii*⁴⁵, *rai*⁴⁵ *yaŋ*⁴⁵ *nii*⁴⁵, *wee*³³ *laa*³³ *nii*⁴⁵; for ‘the future’, one may have *wan*³³ *lan*²⁴, *wan*³³ *naa*⁴², *phaay*³³ *naa*⁴², *khaŋ*⁴² *naa*⁴² *tɔɔ*²² *pay*³³, *tɔɔ*²² *pay*³³ *khaŋ*⁴² *naa*⁴², *tɛɛ*²² *nii*⁴⁵ *pay*³³.

How time is conceived of in modern Thai is not different from its conception during the Sukhothai period, that is, time is conceived as an entity moving from the back of a speaker or moving facing him; or as an entity standing still with the referential points *nii*⁴⁵ ‘this’ and *nan*⁴⁵ ‘that’. However, elaborations of these concepts are also apparent. One may now refer to the event as behind or in front of the referential point and close to or far from the zero point.

It is interesting to observe that *mua*⁴² equivalent to ‘when’ in English can convey several semantic temporal types. Moreover, it can be used to mark not only time but conditioning or reason such as in:

- 28) *mua*⁴² *khaw*²⁴ *may*⁴² *thəŋ*⁴² *naŋ*²⁴ *səu*²⁴ *khaw*²⁴ *kɔŋ*⁴² *khəŋ*³³ *sɔɔp*²² *tok*²²
 (since/if - he - not - read - book - he - then - fail - examination - fall)
 If he does not review his lessons, he will fail the exam.

Since he does not review his lessons, he will probably fail the examination.

Although this is interesting to probe into, it is far beyond the scope of this paper.

Notes

I would like to express my deep appreciation for the helpful comments given by Professor Bernard Comrie and Associate Professor Kingkarn Thepkanjana who have both kindly spent their precious time reading through the original paper.

1. The Modern Thai phonemic system given here is for a broad transcription used in this paper.

Consonants:

<i>p</i>	<i>t</i>	<i>c</i>	<i>k</i>	<i>ʔ</i>
<i>ph</i>	<i>th</i>	<i>ch</i>	<i>kh</i>	
<i>b</i>	<i>d</i>			
<i>f</i>	<i>s</i>			<i>h</i>
<i>m</i>	<i>n</i>		<i>ɲ</i>	
<i>l</i>	<i>r</i>			
<i>w</i>		<i>y</i>		

Vowels:

<i>i</i>	<i>ii</i>	<i>ɨ</i>	<i>ɨɨ</i>	<i>u</i>	<i>uu</i>
<i>e</i>	<i>ee</i>	<i>ə</i>	<i>əə</i>	<i>o</i>	<i>oo</i>
<i>ɛ</i>	<i>ɛɛ</i>	<i>a</i>	<i>aa</i>	<i>ɔ</i>	<i>ɔɔ</i>

Diphthongs:	<i>ia</i>	<i>ua</i>	<i>ua</i>		
Tones:	24	33	22	42	45

These tones correspond to the following Proto-Tai tones respectively: A1H, A1M-A2, B1-DS1-DL1, B2-C1-DL2, C2-DS2

2. Inherent meaning of the word is given in brackets, the temporal meaning in inverted commas is secondary.

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