A HISTORICAL STUDY OF TIME MARKERS IN THAI[1]

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Abstract

In general, time markers which mark a sequence of events can be divided into two main types: markers that have locution time of utterance as the referential point, and markers that have the mentioned time in the text as the referential point. Both types of markers range from one word which can be either inherent or derived to such constructions as noun phrases and preposition phrases. The study shows an increase in both the derived words and phrasal constructions in the four studied periods: Sukhothai, Ayutthaya, Mid-Rattanakosin and Modern Thai.

The study also shows that two types of metaphors, one of moving time and standing time, are used in the four periods with an increase of varieties in each of the periods. Time expressions such as /wan33 naa42/ 'day-front' and /wan33 laŋ24/ 'day-back' are good examples of metaphors of standing time and moving time respectively, both used to mean the future in Modern Thai.

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 the time deixis include both calendric expressions such as 8 o'clock, today, 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-Rattanakosin (RN) (1851-1910), and Modern Thai (MT), a historical study is therefore taken into account.

It will be assumed that 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 paper[1].

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-mono-syllabic words. The monosyllabic time markers are few in number. They are nii45 (SK, AY, RN, MT) (this)[2] 'now', nan45 (SK, AY, RN, MT) (that) 'before', naa42 (SK, AY, RN, MT) (front) 'future', kɔɔn22 (SK, AY, RN, MT) (proceeding) 'before', mɯa42 (SK, AY, RN, MT) (point of time) 'when', dəəm33 (AY, RN, MT) (origin) 'before'. Except for the last two which can occur independently, these mono-

syllabic 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 mɯa42 do not basically denote time. nii45, nan45 are demonstratives; naa42 is a noun denoting a body organ, a face; kɔɔn22 is an adverb meaning 'in front'.

Non-monosyllabic lexical time markers include bat22 nii45 'now' (SK, AY, RN, MT), mɯa42 kɔɔn22 'before' (SK, AY, RN, MT), tɛɛ22 kɔɔn22 'before', tɛɛ22 kɔɔn22 nii45 'before' (RN, MT), diaw24 nii45 'now' (RN, MT), phaay33 laŋ24 'later, time ahead' (AY, RN, MT), phaay33 naa42 'time ahead' (RN, MT), laŋ24 laŋ24 'recently' (MT). These lexical time markers either developed from noun phrases or preposition phrases.

from noun phrases:

i)   bat22 nii45 < bat22 'breath' nii45 'this'

ii)   mɯa42 kɔɔn22 < mɯa42 'point of time' kɔɔn22 'preceding period'

iii)   phaay33 laŋ24 < phaay33 'side' laŋ24 'back'

iv)   phaay33 naa42 < phaay33 'side' naa42 'front'

v)   laŋ24 laŋ24 < tɔɔn33 laŋ24 laŋ24 < tɔɔn33 laŋ24 < tɔɔn33 'portion' laŋ24 'back'

from preposition phrases:

vi)   tɛɛ22 kɔɔn22 < tɛɛ22 'from' kɔɔn22 'preceding period'

vii)   tɛɛ22 kɔɔn22 nii45 < tɛɛ22
        'from' kɔɔn22 'preceding
        period' nii45 '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. On the contrary, the
mono-syllabic lexical time markers seem
to be a closed class with members
almost all of which do not occur
independently. Secondly, some non-
monosyllabic time 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 bat22 nii45,
mɯa42 kɔɔn22, and tɛɛ22 kɔɔn22.
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 phaay33 laŋ24 'in the future'
with the head noun 'phaay33' meaning
'a side'; phaay33 naa42 'in the future'
again with 'phaay33' meaning 'a side';
tɔɔn33 laŋ24 'afterwards' with the head
noun 'tɔɔn33' meaning 'a portion'.
Lastly, the reduplication in tɔɔn33 laŋ24
laŋ24 may illustrate that tɔɔn33 laŋ24
has not yet been finalized as a one-word
time marker. laŋ24 laŋ24 which shows
a further development from tɔɔn33 laŋ24
laŋ24, 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 bat22
nii45 which means the present point of
time. diaw24 nii45 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
preposition 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
        nii45/nan45
b)   temporal noun – spatial noun
        naa42/ laŋ24 – direction word
        pay33/maa33
c)   spatial noun – locative preposi-
        tion – demonstrative pronouns
        nii45/nan45

a) Temporal noun – demonstrative nii45/nan45

viii)   mɯa42 nan45 'the past' (SK,
        AY, RN)

ix)   mɯa42 nii45 'the present' (SK,
        AY, RN)

x)   chɯa42 nii45 'this life time' (SK)

xi)   chuaŋ42 nii45/nan45 'this/that
        period' (RN, MT)

xii)   tɔɔn33 nii45/nan45 'this/that
        moment' (MT)

xiii)   raʔ45yaʔ45 nii45/nan45 'the
        present/past period' (MT)

xiv) khə33 na?22 nii45/nan45 'at present/that time' (AY, RT, MT)

xv) wee33laa33 nii45/nan45 '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, mɯa42 'when', chua42 'life time', khə33 na?22 'while' are used in this slot whereas in the Rattanakosin and Modern Thai periods, words with spatial notions as a portion tɔɔn33 or distance ra?45ya?45 are introduced. The first nouns except mɯa42 usually denote a portion or a part in the stretch of time specified by nii45/nan45. The last example, wee33laa33 nii45 (time-this) 'now' in Modern Thai illustrates a semantically indefinite temporal word which when modified by demonstrative nii45 denotes a specific portion of time i.e. the present time.

mɯa42 is interpreted as a noun in the Sukhothai and Ayutthaya period because of the evidence such as thuk45 mɯa42 'every time' where mɯa42 is apparently a noun. In mɯa42 nan45/nii45 where nii45 and nan45 are demonstratives, mɯa42 nii45/nan45 denote the present period and the past period respectively. Because mɯa42 could be followed by a noun or a noun phrase as in mɯa42 chua42 phɔɔ42 kuu33 (the time - the life time-father-I) 'in my father's life time', it is easy for mɯa42 to be grammaticalized into a preposition 'when' in later periods as in mɯa42 wee33laa33 - pɛɛt22 - naa33li?45kaa33 - wan33 nii45 (MT) (when-time-eight-o'clock-today) 'at 8 o'clock today'.

Another observation must be made for mɯa42. In the Ayutthaya period there were a great number of occurrences of

mɯa42 followed by a verb phrase that ends with nan45, for example, mɯa42 - rap45 pra?22 thaan33 - ?aa33 haan24 - nan45 - mii33 - khon33 - maa33 - duu33 - maak42 (when-eat-food-that-have-man-come-see-much) 'When eating, many people came to look at us'. Here it is likely that mɯa42 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) mɯa42 naa42 'the time ahead, the future' (SK, RN)

xvii) tɔɔn33 laŋ24 'recently' (MT)

xviii) tɔɔn33 laŋ24 laŋ24 'recently' (MT)

xix) ra?45ya?45 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, *ra?45ya? naa42 or khaaŋ42 laŋ24 to convey temporal meaning. Because of the restriction, tɔɔn33 laŋ24, khaaŋ42 naa42, ra?45ya?45 laŋ24 are likely to become compound words in later time. In fact, phaay33 laŋ24, 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.) This 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 Rattanakosin period maa33 'come' and pay33 'go' appears 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
(back-from-that)
'afterwards'

xxiii) laŋ24 caak22 nii45 (pay33)
(back-from-this-go)
'from now (on)'

xxiv) kɔɔn22 naa42 nii45
(preceding time-front-this)
'before now'

xxv) kɔɔn22 naa42 nan45
(preceding time-front-that)
'before that time'

These time markers are best explained by means of metaphor 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 laŋ24 caak22 'after' and kɔɔn22 'before' used in Modern Thai, for example:

1) laŋ24 caak22 - sɔŋ24
khraam33 - look42 - khraŋ45 -
thii42 - sɔɔŋ24
(after-war-world-time-two)
'After World War II'

2) kɔɔn22 naa42 - ʔuʔ22 bat22
tiʔ22 heet22 - khraŋ45 -
nan45
(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 nii45/nan45, 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

By preposition phrase deictic time markers, I mean the preposition phrases that occur as composite units functioning as time adverbials for example,

3) tɛɛ22 nan45 maa33 - khaw24 -
kɔʔ42 - may22 - maa33 - ʔiik22
- lɔɔy33
(since then-he-not-come-again
-not any more-then)
'Since then he never came again.'

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Preposition phrase deictic time markers usually contain nii45 'this' or nan45 'that' which are analyzed here as demonstrative pronouns. A few preposition phrase deictic time markers contain naa42, a noun meaning 'face' or 'the front part'. The preposition phrase deictic time marker in the Sukhothai period illustrated a particular pair of preposition: tɛɛ22 (from)...mɯa33 (to) as in tɛɛ22 nii45 mɯa33 naa42 'from now till the time ahead'. In the Ayutthaya period, this preposition phrase has become tɛɛ22 nii45 mɯa42 naa42 with a change of tone in mɯa33. Following are some preposition phrase time markers that appear in the last two periods studied.

xxvi)   tɛɛ22 nii45 pay33
        'from now on' (RN, MT)
        (from-this-go)
xxvii) tɛɛ22 nan45 maa33
        (from-that-come)
        'from that time, since then' (RN, MT)

xxviii) nay33 wee33 laa33 diaw33 kan33
        (in-time-one-together)
        'at the same time' (RN, MT)

xxix)   taŋ42 tɛɛ22 nan45 maa33
        (from - that - come)
        'since then' (RN, MT)
xxx)   nay33 maj42 chaa45
        (in - not - slow)
        'soon' (MT)

xxxi)   taŋ42 tɛɛ22 nii45 tɔɔ22 pay33
        (since - this - connect - time)
        'from this time' (MT)

As can be seen, most time markers above contain the initial boundary or the source preposition tɛɛ22 or taŋ42 tɛɛ22. The time marker nay33 may42 chaa45

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 nii45 'this' or nan45 'that' which serve as the temporal referential point for the temporal interpretation. nii45 'this' is interpreted as coinciding with the present time. nan45 '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 phaay33 laŋ24, mɯa42 kɔɔn22, tɛɛ22 kɔɔn22 which do not contain the words nii45 and nan45, unless specified otherwise, refer to the location 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, in the deitic temporal preposition thɯŋ24 diaw24 nii45 'until now' thɯŋ24, marks diaw24 nii45 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) mɯa42 'when' (SK, AY, RN, MT)

xxxiii) taŋ42 tɛɛ22 'since' (RN, MT)

xxxiv) con33 'till' (RN, MT)

and grammaticalized temporal preposi-
tions such as

xxxv)   tεε22 'since' (RN, MT)

xxxvi)   naj33 'in' (AY, RN, MT)

xxxvii)   caak22 'from' (MT)

xxxviii) thɯŋ24 'to, till' (MT)

thɯŋ24 and caak22 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. nay33 'in', a locative pre-
position, grammaticalized from a noun,
is similarly used as a temporal pre-
position. tεε22 is most probably gram-
maticalized 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 the
temporal reference to the event in the
main clause of a complex sentence.
From the data thirteen temporal
subordinators are seen:

xxxix)   mɯa42 'when'
         SK AY RN MT

xl)   tiam33 tεε22 'since'
      SK -   -   -

xli)   khran45 'when'
       - AY RN -

xlii)   kwaa22 'till'
        - AY RN MT

xliii)   con33 'until'
         - AY RN MT

xliv)   phɔɔ33 'when, as soon as'
        - AY RN MT

xlv)   con33 kwaa22 'until'
       -   - RN MT

xlvi)   khə33 na?22 'when, while'
        -   - RN MT

xlvii)   kɔɔn22 'before'
         -   - RN MT

xlviii)   laŋ24 caak22 'after'
          -   -   - MT

xlix)   kɔɔn22 naa42 'before'
        -   -   - MT

l)   wee33 laa33 'when'
     -   -   - MT

li)   tɔɔn33 'when'
      -   -   - MT

As can be seen from the list above, only
mɯa42 has been used as a temporal
subordinator until now since Sukhothai
while tiam33 tεε22 and khran45 are now
obsolete. Besides, several subordinators
are synonyms, for example mɯa42,
khran45, wee33 laa33, tɔɔn33 all mean
'when'. Moreover, several temporal
subordinators are made up from a
combination of two synonymous words
such as con33 kwaa22 both of which
mean 'till' or they are derived from noun
phrase such as laŋ24 caak22 from
laŋ24 caak22 nan45, kɔɔn22 naa42 from
kɔɔn22 naa42 nan45. In Modern Thai, a
temporal noun as wee33 laa33 'time' and
tɔɔn33 'period of time' are also used as
temporal subordinators. Below are
examples of the temporal subordinating
clauses in complex sentences:

4)   tɔɔn33 - khaw24 - hok22 lom45
      - chan24 - may42 - yuu22 -
      baan42
      (time-he-fall-I-not-stay-home)
      'When he fell, I was not home.'

5)   mɯa42 - kuu33 - khɯn42 - yay22
      - day42 - 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 reference point needed 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 also proposed: 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 the subordinating clause or phrase or assumed to be in the unseen texts. 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 of reference.

In discussing semantic types of temporal relations or connections between the main clause and its subordinating clause in English, Givon (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 blanket: 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 consistent with the other terms in the set in the manner that the semantic types now are all marked at the temporal expressions. Secondly, we will include 'point coincidence', 'intermediacy' and 'simultaneity' under the same term '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 as follows: anteriority, posteriority, simultaneity, terminal boundary, initial boundary and

generic 'when'. These terms are primarily Givon'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 relative to the present moment, we have the absolute time reference. In Thai, this is usually displayed by the inclusion of nii45 in the time markers. However, some of the time markers in this type do not have nii45, especially those in the anteriority sub-type. Five sub-types are identified: simultaneity, anteriority, initial boundary, posteriority and terminal boundary.

2.1.1 Simultaneity

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

6)   bat22 nii45 - phom24 - khɔɔ24 -
        pəət22 - kaan33 praʔ22 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. Following is the time markers in this sub-type with the indication of the periods they are found.
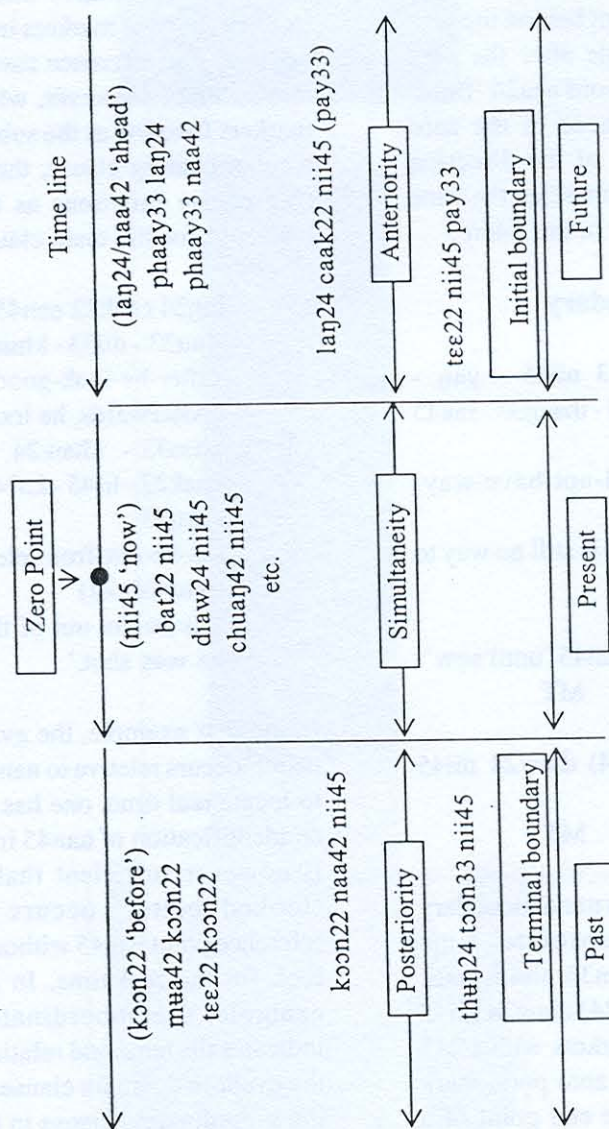
lii)   bat22 nii45
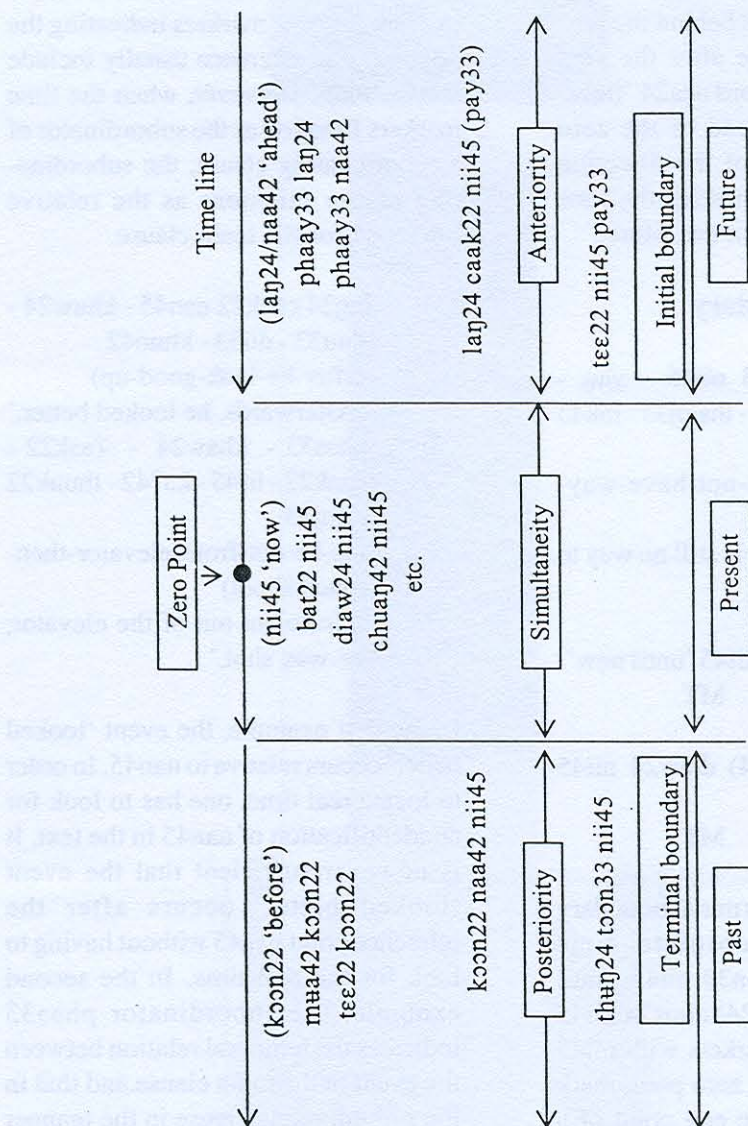   SK AY RN MT

liii)   chua42 nii45
        SK -   -   -

liv)   mɯa42 nii45
        SK AY RN   -

lv)   mɯa42 lun33 nii45
        SK AY -   -

lvi)   diaw24 nii45
        -    - RN MT

lvii)   tɔɔn33 nii45
        -    - RN MT

lviii) chuaŋ42 nii45
        -    - RN MT

lix)   wee33 laa33 nii45
        -    - RN MT

lx)   khə33 naʔ22 nii45
        -    - RN MT

lxi)   pat22 cu33 ban33 nii45
        -    -   - 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 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,

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Time line

(laŋ24/naa42 'ahead')
phaay33 laŋ24
phaay33 naa42

laŋ24 caak22 nii45 (pay33)

Anteriority

tee22 nii45 pay33

Initial boundary

Future

Zero Point

(nii45 'now')
bat22 nii45
diaw24 nii45
chuaŋ42 nii45
etc.

Simultaneity

Present

(kɔɔn22 'before')
mɨa42 kɔɔn22
tee22 kɔɔn22

Posteriority

thɨŋ24 tɔɔn33 nii45

Terminal boundary

Past

kɔɔn22 naa42 nii45

Time line

(laŋ24/naa42 'ahead')
phaay33 laŋ24
phaay33 naa42

laŋ24 caak22 nii45 (pay33)

Anteriority

tɛɛ22 nii45 pay33

Initial boundary

Future

Zero Point

(nii45 'now')
bat22 nii45
diaw24 nii45
chuaŋ42 nii45
etc.

Simultaneity

Present

(kɔɔn22 'before')
mɯa42 kɔɔn22
tɛɛ22 kɔɔn22

kɔɔn22 naa42 nii45

Posteriority

thɯŋ24 tɔɔn33 nii45

Terminal boundary

Past

2.2.1 Simultaneity

Some examples are given here:

13) nay33 - wee33 laa33 - nan45 - may42 - mii33 - khray33 - yuu22 - baan42
    (in-time-that-not-have-who-stay-home)
    'At that time, no one was home.'

14) khaw24 - thuuk22 - yiŋ33 - raʔ45 waaŋ22 - khap22 - rot45 - pay33 - hua24 hin24
    (he-touch-shoot-between-drive-car-go-Huahin)
    'He was shot while he was driving to Huahin.'

lxxviii) nay33 wee33 laa33 nan45 'at that time'
    - - - MT

lxxix) raʔ45 waaŋ22 nan45 'during that time'
    - - RN MT

lxxx) chuaŋ42 nan45 'in that period of time'
    - - - MT

lxxxi) khə33 naʔ22 nan45 'during that time'
    - - - MT

lxxxii) khə33 naʔ22 (subordinator) 'while'
    - - RN MT

lxxxiii) phɔɔ33 (subordinator) 'as soon as'
    - - RN MT

lxxxiv) raʔ45 waaŋ22 (subordinator) 'while, as soon as'
    - - - MT

In the first example which is an example 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 raʔ45 waaŋ22 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 (phɔɔ33, khə33 naʔ22) while others mark the stretch of time (nay33 wee33 laa33 nan45, raʔ45 waaŋ22). The relative reference time markers of the simultaneity type were hardly found in the first two periods whereas in the latter two periods they are plenty.

2.2.2 Posteriority

15) nat45 - phop45 - nay33 - rɯa33 - kɔɔn22 - rɯa33 - ʔɔɔk22
    (appointment-meet-in-ship-before-ship-out)
    (We) made an appointment to meet in the ship before it left the port.

lxxxv) kɔɔn22 naa42 nan45 'before that time'
    - - - MT

lxxxvi) kɔɔn22 naa42 nan45 khɯn42 pay33 'before that time'
    - - - MT

lxxxvii) kɔɔn22 (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 kɔɔn22 as the subordinator occurred post or after the event in the main clause. In Givon's terms, the event in the main clause preceeded the termporal relative reference nan45.

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

Between kɔɔn22 naa42 nan45 and kɔɔn22 naa42 nan45 khɯn42 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) laŋ24 caak22 nan45 'after that'
   -    -   RN MT

lxxxix) laŋ24 caak22 nan45 maa33
   'after that' (past)
   -    -   - MT

xc) laŋ24 caak22 nan45 pay33 'after that' (future)
   -    -   - MT

xci) tɔɔ22 maa33 phaay33 laŋ24
   'after that, afterwards'
   -    -   - MT

xcii) laŋ24 caak22 (subordinator)
   'after'
   -    -   RN MT

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

18) (raw33 - caʔ22 - pay33 - thɯŋ24 - room33 - wan33 - can33 - naa42) laŋ24 - caak22 - nan45 - ʔiik22 - sɔɔŋ24 - wan33 - cɯŋ33 - caʔ22 - paj33 - 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 - khɛŋ24 rɛɛŋ33 - khɯn42
   (back-from-that-come-he-strong-up)
   'After that time/afterwards he became stronger.'

Sentence 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 the time before the zero point and if specified, nan45 refers to the point of time in the future. It must be observed that pay33 'go' and maa33 'come' help mark the time in the future and the time in the past respectively.

2.2.4 Initial boundary

Initial boundary subordinators found in the data include tiam33 tɛɛ22 'since' which was used only in the Sukhothai

period, and taŋ42 tɛɛ22 which is used in the later periods, for example:

20) phii42 - phʉa24 - phuu42 - ʔaay42 - taaj33 - caak22 - phʉa24 - tiam33 tɛɛ22 - yaŋ - lek45
(brother-we-man-eldest-die-from-us-since-still-small)
'Our eldest brother died when he was small.'

21) taŋ42 - tɛɛ22 - khaw24 - maa33 - thəə33 - kɔʔ42 - dii33 - khʉn42
(since-he-come-she-then-good-up)
'Since he came, she has become better.'

Besides subordinators, a preposition phrase tɛɛ22 nan45 is found marking an initial boundary.

22) tɛɛ22 - nan45 - maa33 - thuk45 - khon33 - kɔʔ42 - mii33 - khwaam33 suk22
(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) thon33 - yuu22 - kwaa22 - caʔ22 - sin42 - ʔaa33 yuʔ45 (AY)
(endure-stay-till-finish-age)
'(They have to) endure until their lives end.'

xciii) kwaa22 'till'
SK AY   -   -

xciv) con33 kwaa22 'till'
-    -   RN MT

xcv) con33 'till'
-    -   -   MT

In Modern Thai, kwaa22 does not convey the terminal boundary but posteriority, for example:

24) kwaa22 - khaw24 - caʔ22 - klap22 - luuk42 - kɔʔ42 - lap22 - lɛɛw45 (MT)
(before-he-return-child-then-asleep-already)
'Before he returned, his child has already fallen asleep.'

2.2.6 The generic When

mʉa42 can convey several temporal meanings: simultaneity, anteriority, posteriority, for example:

Simultaneity:
25) mʉa42 - chua42 - phɔɔ42 - kuu33 - kuu33 - bam33 rəə33 - 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 - kɔʔ42 - thuuk22 - khaay24 (MT)
(when-he-die-down-house-then- touch-sell)
'When/after he passed away, the house was sold.'

Posteriority:

27) mɯa42 - thəə33 - 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 distinct subordinator for the above semantic types. The context itself indicates which event occurred before or after or at the same time. Probably because of that, temporal subordinators were few in the earlier periods.

Besides mɯa42, 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 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 the time is a static object. The study of deictic time markers in Thai also shows these two types of metaphors with different orientations.

3.1 The moving time metaphor

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

xcvi) tɛɛ22 kɔɔn22 'before'

xcvii) mɯa42 kɔɔn22 'before'

xcviii) wan33 kɔɔn22 'the previous day(s)'

xcix) phaay33 laŋ24 'future'

C) wan33 laŋ24 'future'

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 moving object. If a speaker stands with his face in the same direction as the a 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 the moving time and the speaker orientation.

ci) tɛɛ22 kɔɔn22 'before'
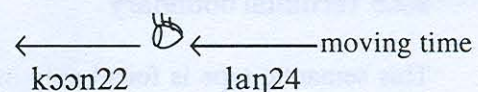
cii) mɯa42 kɔɔn22 'before'

ciii) wan33 kɔɔn22 'the previous day(s)'

civ) phaay33 laŋ24 'future'

cv) wan33 laŋ24 'future'

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. tɔɔn33 laŋ24 'the past' and laŋ24 laŋ24 'recent past' also illustrate the past in the new orientation.

←———— 🖱 ←————moving time

   laŋ24   kɔɔn22
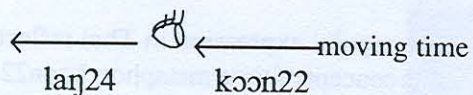
cvi) tɔɔn33 laŋ24 'past time'

cvii) laŋ24 laŋ24 'past time'

cviii) phaay33 laŋ24 'past time'

cix) phaay33 naa42 'future'

cx) (wan33 naa42 'future')

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'

cxi)   laŋ24 caak22 nan45
               laŋ24 caak22 nii45
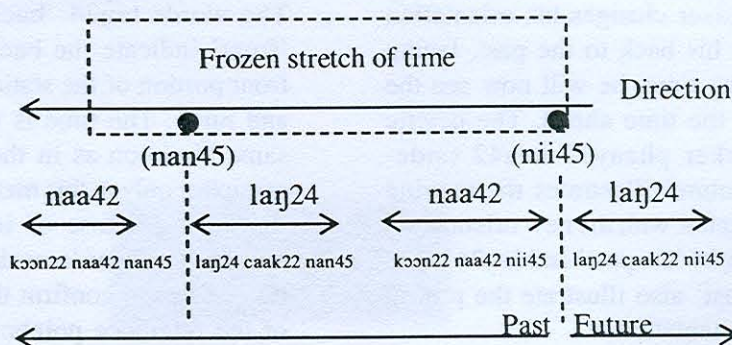
cxii)   kɔɔn22 naa42 nan45
               kɔɔn22 naa42 nii45

cxiii)   caak22 nan45 maa33
               caak22 nii45 pay33

cxiv)   taŋ42 tɛɛ22 nan45 maa33
               taŋ42 tɛɛ22 nii45 pay33

The words laŋ24 '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 taŋ42 tɛɛ22 seem to confirm the static status of the reference points: laŋ24 caak22 nan45, (the back portion from that), 'after that, afterwards'. Because nii45 'this' is usually conceived as the present time, laŋ24 caak22 nii45, caak22 nii45 pay33, taŋ42 tɛɛ22 nii45 pay33 refer to time beyond the present or time in the future.
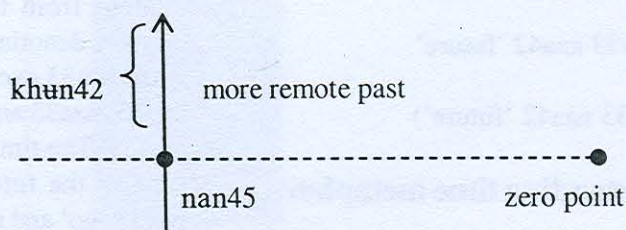
The direction word maa33 'come' and pay33 'go' seem to give the direction towards and from the zero point. This is evident from the fact that the time markers denoting the past can co-occur with maa33 except for *kɔɔn22 naa42 nan45 maa33 and *kɔɔn22 naa42 nii45 maa33. The time markers denoting the time in the future can co-occur with pay33 'go' and not with maa33 'come'. We can 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:

Frozen stretch of time

Direction

(nan45) (nii45)

naa42 laŋ24 naa42 laŋ24

kɔɔn22 naa42 nan45 laŋ24 caak22 nan45 kɔɔn22 naa42 nii45 laŋ24 caak22 nii45

Past Future

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 the 'above' the present time.

khɯn42 { more remote past

nan45 zero point

If we look at the list of time markers, we can see that we have more expressions for the present and the past. This may reveal that a Thai speaker seems familiar with the present and the past and therefore, has more temporal expressions to refer to. With less expression for the future, it probably means that he has no experience with the future and thus has no necessity to refer to them in details. 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.

A temporal expression in Thai reflects this concept of time metaphor: kɔɔn22 - naa42 - nan45 - khɯn42- 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 the time far away from the speaker.

4. Conclusion

In conclusion, the study of time markers from the four periods show that time markers in Modern Thai are larger in number than those in the other periods. In fact, there was a sharp increase already in the Rattanakosin period. The time markers in the two latter periods especially in Modern Thai show not only more time markers but also the longer time markers. The long time markers are either doublets such as con33 kwaa22 'until' or phrases such as tɔɔ22 pay33 khaaŋ42 naa42 'in the future'. Phrasal time markers can be either noun phrases such as laŋ24 caak22 nan45

'afterwards' or preposition phrases such as taŋ42 tɛɛ22 nan45 maa33 'from that time, since then'

It is seen that in the Sukhothai period demonstrative pronouns nii45 and nan45 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 caak22 'from', thɯŋ24 'to' are used also as time markers. Thus it can be said that words are added more and more to the time marker lexicon and only few words are obsolete. As a result, synonyms in time markers are not rare. For 'now', one may have bat22 nii45, diaw24 nii45, tɔɔn33 nii45, ra?45 ya45 nii45, wee33 laa33 nii45; for future, one may have wan33 laŋ24, wan33 naa24, phaay33 naa42, khaaŋ24 naa24 tɔɔ22 pay33, tɔɔ22 pay33 khaaŋ24 naa24, tɛɛ22 nii45 pay33.

How time is conceived in modern Thai is not different from that of the Sukhothai period, that is, time is conceived as an entity moving from the back of a speaker or moving facing him; or as a stand still entity with the referential point nii45 'this' and nan45 'that'. However, elaborations of these concepts are 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 mɯa42 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) mɯa42 - khaw24 - may42 - thɔŋ42 naŋ24 sɯɯ24 - khaw24 - kɔ?42 - khoŋ33 - sɔɔp22 - tok22
(since/if-he-not-read-book-he-then-fail-examination-fall)
'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

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

Consonants:

p	t	c	k	?
ph	th	ch	kh	
b	d			
f	s			h
m	n		ŋ	
	l	r		
w		y		

Vowels:

i	ii	ɯ	ɯɯ	u	uu
e	ee	ə	əə	o	oo
ɛ	ɛɛ	a	aa	ɔ	ɔɔ

Diphthongs:

ia	ɯa	ua

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
bracket, the temporal meaning in inverted
commas is secondary.

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