A Non-linear Analysis of Aspect in Thai Narrative Discourse

Todd P. Schmidt
University of Texas at Arlington

The Serial Verb Construction (SVC) in Thai, while maintaining fundamental characteristics of Serial Verbs, i.e., the subject of a predicate is identified with an argument of some other expression, does not have the luxury of specific morphemes defining tense specification, but is built largely of verbs, adverbs, and auxiliaries that can function as Directional Forms (Hatton 1975), verbs that define a path (Thepkanjana forthcoming), Pre/Post-Serial Verbs (Kanchanawan 1978), and locative/temporal adverbials (Warotamasikkhadit 1972).

1. Aspect in the Thai verb phrase

Kanchanawan's (1978) and Warotamasikkhadit's (1972) analyses define parameters of semantic restrictions of temporal/aspectual expression in the Thai verb phrase ã la SVCs. The subject ellipsis in the SVC below in [1] contrasts with the perfective aspect expressed in [2] even though the transformation appears identical in each.

[1] a. kʰaw kʰap rot
        3s   drive car

                        →kʰaw   kʰap rot paʲ
     b. kʰaw paʲ   3s   drive car go
        3s go   'He drives/drove the car.'

[2] a. kʰaw kʰawcaʲ pʰit
        3s understand wrong

                        →kʰaw kʰawcai   pʰit   paʲ
     b. *kʰaw paʲ   3s   understand wrong Perf.
        3s   Perf.   'She misunderstood.'

Sindhvananda (1970) defines *paʲ* in [2] not as a subject ellipsis auxiliary, but as a perfective marker:

/pay/ (in [2b]) *cannot convey a notion of "going" with the additional meaning of "direction away from the speaker" as it usually does when functioning as a main verb. The only sense that can be grasped from /pay/ (in [2]) is that something has already happened....Thus, it should be concluded that /pay/ in this sense of "completion" should be considered as an auxiliary, a pure perfective marker, as opposed to /pay/ in the sense of "going" in an embedded sentence* (see [1a])(Sindhvananda 1970:30).

Kanchanawan (1978) analysis places time phrases outside the verb phrase and time/aspect markers within the verb phrase. Time and aspect markers function within the VP as: pre-serial verbs (PREV), auxiliaries (AUX), post serial verbs (POSTV) and particles (PART) (Kanchanawan 1978).[1] Time expression in Thai is explained through a "combination of time phrases, time markers, aspect markers, and certain types of verbs"[2] (Kanchanawan 1978:73).

Kanchanawan (1978) takes the time phrase (TP) component out of the verb phrase altogether.[3] TPs are the greatest indicators of a point or a range of specific time in Thai discourse. Some time phrases that indicate a point in time are *mɨawaanii* 'yesterday', *piinaa* 'next year', etc. Some time phrases that indicate a range of time such as those that include *taŋtæɛ* 'since' (*taŋtæɛ mɨawaanii* 'since yesterday') and those that describe a span of time (*sɔɔŋ chuamooŋ* 'two hours'). These time phrases are distinct from time and aspect markers:

Time refers to the real point "when" an event takes place. It is generally divided into past, present, and future. Aspect indicates "how" the event takes place, e.g., continuous, continuative, and others (Kanchanawan 1978:71).

Time and aspect markers, distinguished according to the definitions above are based on Reichenbach's tense formulas in which three elements, a speech act, an event, and a "reference" point are represented by the symbols E, R, and S, respectively.

Time is ordered left to right, dashes indicate sequentiality, commas indicate simultaneity (in [3]) (Reichenbach 1947:294):

[3] I see John.   S,R,E
     I saw John   R,E -- S
     I have seen John   E -- S,R
     I had seen John   E --R -- S

Kanchanawan (1978:71-2) adapts Reichenbach's tense formulas toward an explanation of time expression within the Thai VP [4][4]:

[4] (a) simple past   R,E -- S
     (b) simple present   S,R,E
     (c) simple future   S--R,E
     (d) past continuous $\vec{E}$,R--S
     (e) present continuous   S,R, $\vec{E}$
     (f) future continuous   S--R, $\vec{E}$
     (g) past perfect   E--R--S
     (h) present perfect   E--S,R
     (i) future perfect   S--E--R
     (j) past perfect continuous $\vec{E}$ --R--S
     (k) present perfect continuous $\vec{E}$ --R,S
     (l) future perfect continuous   S-- $\vec{E}$ --R
     (m) non-fulfilled past   E*--R--S
     (n) non-fulfilled past continuous $\vec{E}$ *,R--S
     (o) non-fulfilled past perfect   E*--R--S

According to these categories, Kanchanawan (1978) has a taxonomy of time and aspect markers similar to the location/motion path-relative taxonomy developed by Thepkanjana (forthcoming). Five time markers indicate three times: past, recent past, and future (Kanchanawan 1978:76). Eight aspect markers indicate five aspects: continuous, completive, perfective, continuative, and generic (Kanchanawan 1978:81-5). These are listed in [5].

[5]   Past time markers: *daⁱ* 'able, can, may, get, receive,
                                    have opportunity'
                                kʰəəⁱ 'experience, accustomed to'
                                waⁱ 'keep (for a certain purpose)'
      Recent Past marker: *pʰəŋ* 'just'
      Future marker: *caʔ* Volition, Assertion, Intention
      Continuous Aspect: *juu* Process of doing, Stative
      Completive Aspect: *cop* 'end"
                                samret 'successful"
                                set 'finish'
      Perfective Aspect: *læææw* 'ready, already, finish'
      Continuative Aspect: *paⁱ* 'go, away'
                                maa 'come, towards'
      Generic Aspect: *jɔm* 'naturally'

Considerable attention has been given to the application of Reichenbach's formulas to narrative aspect (Dowty 1979; McCoard 1978; Smith 1978). Based on aspect theory in application to narrative text analysis, I will develop a working hypothesis of the expression of time specifically in Thai narrative.

Smith (1978) proposes an extension to Reichenbach's system where speech time (S) is orientation time (OT) because, although in independent sentences (in English) orientation time is always speech time, "in narratives, a time of narration can be established and the sentences of the narrative are all understood as oriented to that time." (Smith 1978:77)

Smith gives examples of sentences that cannot be fully interpreted in isolation, although they are grammatical, in [6] and [7].

[6]   Laurie called beforehand.

[7]   John was better now.

These sentences "require a specification of the time to which they are oriented, or anchored." (Smith 1978:77)

Dowty (1979:332) credits Smith (1978) with this insight into the order of sentences in a narrative; i.e., "indefinitely identified times in a sequence of sentences in a narrative are understood to be ordered." Dowty argues that sequences of sentences with contextual identifiability in a narrative are distinctively simple past, because of their R,E -- S formula. And, that if reference time were to be distinct from the others, i.e., R--E--S, or past perfect, then the referential information is of pragmatic value to the narration as a whole, not to the independent sentence (Dowty 1979:330-334).

The assumption by Kanchanawan (1978:134) is that there will always be time indication in any Thai sentence, if not a specific time indicator, then the only time implication is in the verb itself. *If a time phrase is not present, the time implication in the time marker will take precedence. Last, the time implication in the verb will be significant if there is neither a time phrase nor a time marker.* (Kanchanawan 1978:74)

In order to avoid relying on a semantic taxonomy of verbs that contain time indications, I will investigate a hypothesis based on the above theory of narration. That is, according to the Reichenbach (1947) tense formulas and Smith's (1978) and Dowty's (1979) theories, Thai would express narrative storyline with an unmarked past case. It is unmarked because it is indistinguishable from simple present. Orientation time (OT) can be set with overt past time phrases (TP) that are outside the VP and time/aspect markers within the VP that can be applied across sentence boundaries.

Overt time expression is *highlighted* in the portion of Thai narrative text below:

S1   siit^{h}anoncha^j *kɔɔ rəəm* witok na^j rɯaaŋ t^{h}ii   juu aasa^j

      s   then begin worry about story place live
      'Srithanonchai *then began* to worry about where he
      would live.'

S2   *taŋtææ baaʲ*   *maa lææw* kʰaaw met diaw
          since afternoon   cont. perf.   rice   kernel single
          jaŋ   maʲ tok tʰʉŋ thɔɔŋ
          yet   not fall to   stomach
          '*Since that afternoon*, not a kernel of rice had reached
          (his) stomach.'

S3   hiu   con   taa laaʲ
          hungry until eye specks
          '(He) was hungry and faint.'

S4   tææ kɔɔ   cam   tɔŋ tʰon dəən krasəʔ krasəəŋ
          but then necessary   must bear walk aimlessly
          ɔɔk paʲ caak muu baan
          out go from village
          'But he must continue wandering out from the village.'

S5   tʰii *kʰəʲ*   juu aasaʲ *maa* tææ ɔɔ   tææ ɔɔk
          that pst tm live   cont. since young (idiom)
          'that (he) *grew up* in.'

S6   dəən paʲ jaaŋ   raʲ   cut maaʲ   *con kraʔtʰaŋ*
          walk go Attrib.   without   purpose   until
          mʉʉt sanit
          darkness completely
          '(he) walked devoid of purpose *until complete darkness*.'

S7   siitʰanonchaʲ *cʉŋ* lææ hen wat   jaʲ hæŋ   nʉŋ
          s   then see   monastery big place   one
          jʉʉn tʰamʉn   juu naʲ kʰwaam mʉʉt
          stand erect   loc. in   darkness
          Srithanonchai *then* saw a large monastery standing erect
          in the darkness.'

S8   caw   chai noʲ   kʰoʲ   mii   kaʔcaʲ
         3sm informal add. s   little   slowly   have   hope
         'Srithanonchai eventually took heart.'

S9   proʔ   kʰit   *waa*   jaaŋ   noʲ   *kʰɯɯn nii*   koɔ pʰɔ
         because think compl.   at least   night this   at least
         caʔ   mii tʰii   suk   hua
         irr.   have place hide head
         'Because, (he) *thought*, at least *this night* he would have
         a place to rest (his) head

         noɔn   taam saalaa   naʲ wat   nan daʲ
         sleep along resting shelter in   monastery   that   can
         and sleep along the pagoda in the monastery

         koɔ pʰɔ kan   fon   kan   naam kʰaaŋ
         at least prevent   rain prevent dew
         sufficient to prevent rain and dew.'

S10   paʔmoʔ aat   *caʔ*kʰoɔ   kʰaaw caak
         luckily probably irr. request rice   from
         sompʰaan kin   sak   mɯɯ
         abbot   eat   only+one meal
         'Appropriately, (he) probably *could* request from the
         abbot just one meal to eat.'

S11   *cɯŋ* riip   saaw tʰaw   kaaw   paʲ jaaŋ
         then hurry   pull feet   step   dir. attrib.
         ruat rew
         quickly
         '*So*, (he) walked forward very quickly.'

S12   *mɯa* kʰaw kʰeet wat   cai   kʰoɔ kʰoʲ
         when   enter area monastery heart throat begin
         chɯɯŋ kʰɯn

damp   increase
'When (he) entered the monastery area, (he) began to feel refreshed with hope.'

S13   siitʰanonchaʲ dəən   duu taam   kuti

s   walk   look along   monk cloisters

noʲ   jaʲ naʲ boriwen wat

little   big   in   area   monastery
'Srithanonchai walked and looked at the large and small monk cloisters in the monastery area.'

S14   *læææw* paʲ   jut   jʉʉn juu   naa   kuti   jaʲ laŋ nʉŋ

then   go   stop stand Loc front cloister big Class. one
'*Then*, (he) went and stood in front of a big cloister.'

In S1, *rəəm* 'begin' establishes ET and ST in the story either as ET,ST or ET--ST. According to this information, it is ambiguous whether ET and ST are synchronic or diachronic. That is, while according to Smith (1978) and Dowty (1979), the default unmarked case would be past tense for narrative, nothing in the syntax of *rəəm* as an aspect marker within this sentence marks it as specifically as past tense (ET-ST) or present tense (ET,ST). In S1, OT is synchronic with ET.

However, in S2, *taŋtææ baaʲ maa læææw* 'since the afternoon' and *jaŋ* 'yet' establishes a pre-chronic OT. That is, when *rəəm* 'begin' established ET in S1, it is clear that the comment in S2 is a prior reference to ET (OT--ET--ST, cf. R -- E-- S), confirming the distinctive past perfect usage of the TP in S2 (marked by *maa.*). Basing the OT *taŋtææ baaʲ maa læææw* 'since the afternoon' and *jaŋ* 'yet' in S2 and *con kraʔtʰaŋ mʉʉt sanit* 'until complete darkness' in S6 on a single 24 hour period would place ET for S1 through S4 somewhere in-between. S5 retreats into the more distant past with the use of the past time marker *kʰəʲ* and the perfective *maa*.

But in S6, the non-event reference time (OT--ET) has once again become OT,ET based on the TP marker *con kraʔtʰaŋ mʉʉt sanit* 'until complete darkness'.

Specifically, when was he hungry (S3) and when did he remember (S4)? Based on the TPs in S2 and S6, it is unclear which formula characterizes the action in S3 and S4. According to Smith (1978) and Dowty (1979), the order would determine the sequentiality in series of sentences lacking definite identifiable time.

Further evidence of the unmarked past tense that foregoes the marking of order with identifiable time phrases is in S7, S8, S11. These sentences contain events that are required as events of sequential time reference to immediate post-ceding clauses.

S7 and S8 do not contain TPs to give temporal reference to the discovering of the temple. But, the evaluation marked by the thought act complementizer *waa* in S9 refers to this discovery. *waa* (also in S15), which I choose to label as a non-past time expressor is, in fact, the speech/ thought act marker which would be sequential in the storyline, and thus past time. But, the corpus of the speech or thought therein is a non-past irrealis evaluation (marked by *caʔ* and *kʰʉʉn nii* in S9 and S10).

While these clauses show evidence through the use of TPs and iconic ordering of the unmarked past case in Thai, overt sequential markers of events (SM) are textually marked by *kɔɔ, cuŋ, lɛɛɛw*, 'then' in S1, S4, S7, and S11 which serve to highlight events by marking their boundaries.

Sequential markers in Thai have been examined by Burusphat (1991) who gives credit to Kanchanawan (1978) for developing a good working taxonomy of time expressions in Thai, but Burusphat (1991:107) specifies some additional sequential markers relevant to Thai narrative:

The sequentiality of storyline in Thai narratives is frequently detected by the use of temporal clauses, phrases, or words, and the use of auxiliaries, pre-serial verbs, and post-serial verbs. The sequential markers focused on here are the completive

*markers cop 'end', samret 'successful', and set 'finish', the
perfective marker læææw 'already', the auxiliary kɔɔ 'then',
and the preserial verb cʉŋ 'consequently'.* (See Hopper (1979)
for other examples of languages with overt narrative sequence
marking.) Below is a list of time expressions operative in the
selected Thai narrative portion.

S1 sequential marker *kɔɔ, rəəm* 'begin'

S2 *taŋtæææ baaʲ maa* (Cont.) *læææw* (Perf.), *yaŋ* 'yet'

S4 *kɔɔ*

S5 *kʰəʲ* (Past Time Marker), *maa* (Continuous)

S6 *con kraʔtʰaŋ mʉʉt sanit*

S7 sequential marker *cʉŋ*

S9 non-past complementizer *waa*, irrealis marker *caʔ*

S10 irrealis marker *caʔ*

S11 *cʉŋ*

S12 *mʉa* 'when'

S14 sequential marker *læææw*

This can be expressed below as a string of sentences in which
overt time expression is marked with association lines.

```
TP TP       TP                    TP
 |  |        |                     |
 1  2 3 4  5 6    7 8    9 10    11 12 13 14
 |        |  |    |      |  |     |        |
koo     koo kʰəʲ  cʉŋ   waa caʔ  cʉŋ    læææw
            maa          caʔ
```

In this series of clauses S3, S8 and S13 do not have overt
time expression. The economy of Standard Thai has a high
capacity use of pro-forms in sentences: often sentence subjects,
aspectual markers, (and sometimes propositions, cf. Hatton
(1975)) are "covert" and ambiguous and can render a sentence

seemingly incomplete. As such, in order to clarify ambiguity of syntactic analysis in these areas, parameters beyond the sentence boundary are needed to correspond with the economy of the language as it is employed in narrative text, i.e., the anaphoric chaining of subjects vis-a-vis topic formation and the limited use of overt time markers.

Pro-forms are actually "zero" anaphors that represent previous material in an economical way. A discourse level analysis is necessary to investigate the use of "zero time-aspect anaphora" in Thai. At this point, I will employ the use of a model of nonlinear analysis borrowed from autosegmental phonology towards establishing a multi-clausal investigation.

Topic chaining, as a descriptive analysis of pronominalization in "cool" discourse-type languages such as Thai is possibly compatible within this nonlinear paradigm. I will use principles of autosegmental phonology to more clearly describe this phenomenon in Thai as it occurs with aspect and juxtapose it with topic.

2. Non-linear analysis of aspect in Thai narrative

2.1. Autosegmental analysis

In generative phonology, features that compose sounds are viewed as units. Autosegmental phonology challenges this by viewing features as autosegments, i.e., free from the constraints of the whole set of features of the segment. Autonomous features are on tiers that individually associate with the consonants and vowels on the skeletal tier, such as tone in the definition of the Association Convention (Goldsmith 1990:14):

Association Convention
When unassociated vowels and tones appear on the same side of an association line, they will be automatically associated in a one-to-one fashion, radiating outward from the association line.

Viewed on separate horizontal tiers with vertical pre-association lines connecting them, autosegmental features can "radiate" outward to associate with other Cs or Vs.

In the example of tone, tone features and CVs are on separate tiers. A pre-defined association line is overt within the structure of the language. When a tone that is associated with a single vowel is adjacent to a vowel that has no additional tone with which to apply an association, then spreading, or assimilation, can occur. Language specific rules define parameters of spreading whether unbounded rightward spreading, unbounded leftward spreading, spreading in both directions or bounded spreading that may be restricted only to doubling. Rules of this nature are important to discover when investigating a string of pre-associated tones such as those in [36], i.e., which way and how far does the spreading occur?

$$[36]\ C\ V_1\ C\ V_2\ C\ V_3\ C\ V_4\ C\ V_5\ C\ V_6\ C\ V_7$$

$$H \qquad\qquad L \qquad\qquad H$$
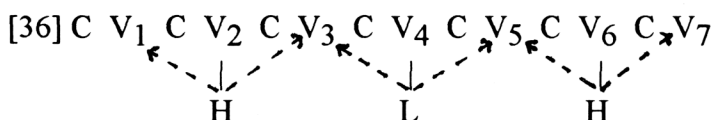
2.2 Autosegmental formalism applied to aspect in Thai

Applying this formalism to characterize aspect in Thai narrative discourse provides a strong argument for parameters that are beyond the sentence boundary. S3,S8 and S13 are ambiguous in time expression, unless they associate in order with S7 and S12, respectively, which are preassociated to an aspect tier (T) by overt time expressions (below):

$$
\begin{array}{cccccc cc c c ccc c}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 & 12 & 13 & 14 \\
| & | & | & | & | & | & | & & | & | & | & | & & | \\
T & T & T & T & T & & T & & T & T & T & T & & T
\end{array}
$$

Let me now apply this formalism to a continuation of the discourse S1-S14 to demonstrate its value. This portion is more revealing of null aspect in clauses that need to associate with

those that are pre-associated, i.e., those that contain overt expressions of time in the story (*italicized*).

S15 kʰit daw aw *waa* kʰoŋ pen kuti tʰan
think guess compl. may is cloister 3 formal add.
sompʰaan caw aawaat
abbot lord abiding place
'(He) guessed that it must be the living quarters of the abbot, lord of the place.'

S16 pʰrɔʔ jaʲ kwaa laŋ ɯɯn
because big compar. building (Class.) other
'Because (this building) was bigger than the others.'

S17 *cɯŋ* tat sin cai kaaw kʰɯn bandai
then decide step up staircase
'*Then* (he) decided to ascend the staircase.'

S18 *kʰran* kʰɯn paʲ tʰɯŋ nɔɔk chaan kuti jaʲ nan
then up dir. reach outside edge cloister big that
'*After ascending* to the perimeter of that big house.'

S19 læʔ hen tʰaan sompʰaan naŋ iŋ
and see 3 form.add. abbot sit lean
saw chaan kuti *juu*
post edge cloister cont.
'And (he) saw the abbot *sitting leaning* against a post on the porch of the cloister.'

S20 caw chaʲ noʲ kʰoʲ kʰoʲ kom loŋ kraap
3s inform. add. S little slowly down down prostrate
'Srithanonchai slowly prostrated himself.'

S21 *læææw* kʰlaan kʰaw pai
 then   crawl enter dir.
 '*Then* (he) crawled inside.'

S22 mɔɔp saŋop saŋiep *juu* bʉaŋ naa
 bow silently humbly Loc front
 '(He) silently and humbly *bowed down* in front (of him).'

S23 kom loŋ   kraap *iik kʰraŋ*
 bow down respect one more time
 '(He) bowed down in respect *once again*.'

S24 naam taa laʲ rin loŋ   maa   aap kæææm
 tears   run   down come   wash cheeks
 'Tears came flooding down and washed all over
 (his) cheeks.'

 Time is overtly marked in these clauses by previously
identified time expressions (cf. Kanchanawan), and other
expressions including *kʰran* as a sequence marker and *iik kʰraŋ*
'again' as a time phrase. Also, *juu* operates as a continuous
marker for the propositions in S19 and S22.

S15 *waa*
S17 *cʉŋ*
S18 *kʰran* 'at that time'
S19 *juu* (continuous)
S21 *læææw*
S22 *juu* (continuous)
S23 *iik kʰraŋ* 'again'

15 16   17 18   19 20   21   22   23 24
|⌐´ | | |⌐´ | | |⌐´
waa   cʉŋ kʰran juu   læææw juu iik kʰraŋ

The applied formalism (above) indicates the propensity for Thai to adopt an association-driven non-linear multi-clausal discourse analysis of aspect. As I mentioned earlier, aspect could be placed on a tier separate from other constituents, such as topic, the multi-clausal association of which could be juxtaposed with the aspect tier to be used in analyzing discourse level phenomena such as: paragraph formation, eventline and non-eventline, participant reference, etc.

Notes

[1]Kanchanawan (1978) identifies specific subcategorical restrictions for each constituent label: PREV, AUX, and POSTV. She excludes POSTV from this PS rule because it is developed from VPS (Kanchanawan 1978: 41) which is similar to Filbeck's VP*. Thus, VPS is described as such:
VPS → VP PVP
PVP → POSTV (Q)
[2]Kanchanawan actually develops a taxonomy of verbs that is discussed with reference to time expression in Thai narrative in Chapter 3 Section 3.3.1. (cf. Burusphat 1991:99-105)
[3]Warotamasikkhadit (1972) describes TP as T_m *within* the verb phrase, (PS2 in his phrase structure description of Thai.)
[4]"*" and "→" refer to event continuation and irrealis which Kanchanawan (1978) argues as distinctive aspect designations in Thai.

References

Burusphat, Somsonge. 1991. The structure of Thai narrative. Arlington: SIL and UTA.
Dowty, David.1979. Word Meaning and Montague Grammar. Holland:D. Reidal Dordrecht.
Goldsmith, John. 1990. Autosegmental and metrical phonology. Oxford: Basil Blackwell.

Hatton, H. 1975. A Thai discourse pattern. Studies in Tai
linguistics, ed. by J. G. Harris and J. R. Chamberlain,
231-51. Bangkok: Central Inst. of English Language
Office of State Universities.

Hopper, Paul. 1979. Aspect and foregrounding in discourse.
Syntax and semantics 12: Discourse and syntax, ed. by
Talmy Givon, 213-41. New York: Academic Press.

Kanchanawan, Nitaya. 1978. Expression for time in the Thai
verb and its application to Thai-English machine
translation. PhD dissertation. Austin: UT.

McCoard, R. W. 1978. The English perfect: Tense-choice and
pragmatic inferences. North-Holland Publishing Co.:
Amsterdam.

Reichenbach, H. 1947. Elements of symbolic logic. The Free
Press.

Sindhvananda, Kanchana. 1970. The verb in modern Thai. PhD.
dissertation. Wash. D.C.: Georgetown University.

Smith, Carlota.1978. Constraints on temporal anaphora. Texas
Linguistic Forum. Austin: UT.

Thepkanjana, Kinkarn. forthcoming. Diagrammatic iconicity in
the Thai verb phrase. Ann Arbor: U of Mich.

Warotamasikkhadit, Udom.1972. Thai syntax. An outline.
Mouton: The Hague.