Aspectual Markers in Thai

Isaac Sarver

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1 Introduction

In Thai, there are at least seventeen aspectual 'markers', or words that mark aspect on the verb. These words can have multiple functions: some can act as a verb themselves, some cannot. These markers can also occur together but have a number of restrictions on how that can occur. Some can license or block others from occuring; some scope from left to right, and some scope from right to left. Some can appear before the verb, and some afterwards.

For this paper, I will present data of these Thai aspectual markers and the problems that they can present for analysis. In section 2, I will present preliminary data to introduce the Thai aspectual system and give a general idea of how the aspectual markers appear in the language. In section 3, I will discuss the work in Chiravate (2002) and the case for unified definitions of these aspectual markers despite their different functions. I will also discuss Chiravate's data as well as my own data from other languages and how it can support or detract from her analysis. In section 4, I will contrast this analysis of the aspectual system with the work in Koenig and Muansuwan (2005) and discuss how this analysis provides a partitioning of the markers into three different groups in order to justify a syntax and semantics that accounts for the scoping relations of these words. Finally, in section 5, I will give a summary of the problems that arise when comparing the data in the two papers with each other as well as with my own data.

2 Preliminary Data

For the examples in this paper, I will use the following system to transcribe Thai tone as subscripted numbers on each syllable:

(1)

1	2	3	4	5
mid	low	falling	high	rising

Any lack of tonal information in the data from Thai or Chinese is due to the tones not being provided in the sources.

Thai is an SVO language, and it does not have any inflectional morphology. It is a language that allows for a great amount of temporal and aspectual vagueness, as in (2):

(2) Su$_1$rii$_1$ tɛɛŋ$_2$ klɔɔn$_1$
Surii compose poem

This sentence can have four different interpretations, showing the vagueness:

a. Surii is composing a/the poem.

b. Surii composes (habitually) a/the poem.

c. Surii composed a/the poem.

d. Surii will compose a/the poem.

A fifth temporal/aspectual interpretation is possible if a reference point is provided, as in (3):

(3) Su$_1$rii$_1$ tɛɛŋ$_2$ klɔɔn$_1$ mɯa$_3$ c^{h}an$_5$ paj$_1$ haa$_3$
Surii compose poem when I go visit
'Surii was composing a/the poem when I went to visit her.'

This temporal vagueness which is presented in these examples is usually not always present in Thai, due to contextual information or the presence of temporal adjuncts. However, it is important to note that the interpretations in (2) and (3) are all possible.

Aspectual markers can mitigate vagueness, but can often function in other ways too. The word *yuu*$_2$ is a good example of this.

Consider the following examples:

(4) a. cɔɔn$_1$ ʔaan$_2$ naŋ$_5$sɨɨ$_5$ **yuu**$_2$
John read book *yuu*$_2$
'John is reading.'

b. cɔɔn$_1$ suub$_2$ bu$_2$rii$_2$ **yuu**$_2$ song$_1$ pee$_1$
John smoke cigarette *yuu*$_2$ two year
'John smoked for two years.'

c. cɔɔn$_1$ ʔuuan$_3$ **yuu**$_2$
John fat *yuu*$_2$
'John is, at this time, fat.'

In (4a), *yuu*$_2$ is acting as a progressive marker, in (4b) as a habitual marker, and in (4c) as a temporal marker.[1] However it can also function as a copular verb in some instances, as in (5):

(5) cɔɔn$_1$ **yuu**$_2$ thii$_3$ hoŋ$_3$sa$_2$mud$_2$
John *yuu*$_2$ at library
'John is at the library.'

This sort of behavior is not restricted to *yuu*$_2$. Other aspectual markers can also have multiple functions, usually functioning as some sort of verb or auxiliary as well as a marker.

Lastly, these aspectual markers can co-occur with each other, with maximally four markers appearing in the same clause.

[1] Chiravate 2002

(6) Su$_1$rii$_1$ **kam$_1$laŋ$_1$** t^{h}am$_1$ ŋaan$_1$
Surii PROG do work
'Surii is in the process of working.'

(7) Wi$_1$laj$_1$ **ca?$_3$** tɛɛŋ$_3$ klɔɔn$_1$ bot$_2$ nɯŋ$_2$ **k^{h}ɯn$_3$**
Wilaj be.about.to compose poem CL one SEMI-PERFV
'Wilaj will compose a piece of poetry.'

(8) Prii$_1$da$_1$ **kam$_1$laŋ$_1$** **ca?$_3$** saaŋ$_3$ baan$_3$ **k^{h}ɯn$_3$** **maa$_1$**
Priida PROG be.about.to build house SEMI-PERFV PERF
'Priida is going to build a/the house.'

As can be seen in the last three examples, Thai aspectual markers can appear with certain others simultaneously and, depending on the marker, can be restricted to appear before or after the main verb.

The goal of this section of preliminary data is to show the aspectual system, and crucially two aspects of it: based on my primary sources, Chiravate (2002) and Koenig and Muansuwan (2005), these aspectual markers can present two challenges to traditional approaches. The first is their versatility as lexical items. Chiravate discusses this in detail, as multiple aspectual markers can function in the language independently as seemingly different words. Koenig and Muansuwan address the second: problems of the mapping between the syntax and the semantics of a sentence like (8), where there are many interacting aspectual markers, since the semantic scoping facts do not easily combine with the apparent syntax of these sentences.

3 Aspectual Markers and Lexical Entries

3.1 Homonymy

What should the attitude be towards potential homonymy in syntactic or semantic analysis? There are clear examples when it is not a good excuse to suggest homonymy simply for convenience. Saying that the *and* which can conjoin individuals, *Fred and George* and the *and* which can conjoin predicates, *Fred danced and sang*, are two different words is not very satisfactory, and it is instead much more advantageous to make sure there is a way of describing words in these cases both syntactically and semantically so that there is simply one lexical entry for *and*.

There are examples where what initially appears to be a single lexical item might be best described as representing two lexical entries:

(9) a. John shaved.

b. John shaved the sheep.

The sentence in (9a) is clearly reflexive, while (9b) is transitive. As discussed in the Reinhart and Reuland (1993), (9a) must be lexically reflexive. This is made evident through nominalization of the verb:

(10) Shaving is a chore.

Here, without any context, (i.e. unless there are contextually relevant sheep in need of shaving) the reflexive meaning *Shaving oneself is a chore* is the reading.

So should the reflexive *shave* and the transative *shave* be separate words? For another word like this, *leave*, the two different senses can require two separate words when being translated into other languages, such as Arabic:

(11) *i- shaxs$_i$ illi Ali raːħ t_i
the person that Ali left
'The person that Ali left'

(12) i- shaxs$_i$ illi Ali tarak t_i
the person$_i$ that Ali left
'The person that Ali left'

However, this is not good evidence that an analysis of a language like English should take cues from the way meanings are assigned in another language. Translating into a language with SE anaphors can be easily used as evidence for in the opposite direction, in other words, that words with this distinction of being optionally lexically reflexive are represented by a single lexical entry in the lexicon.

Consider the translation of *shave* into Spanish:

(13) él se rasura
he SE shaves
'He shaves.'

(14) El barbero rasuró la barba d- el hombre
The barber shaved the beard of the man
'The barber shaved the man's beard.'

In (13), the SE anaphor can fill a thematic role of the verb, and so the temptation to describe words like *rasurar* as two different lexical entries becomes less tempting. For the English example, then, there might simply be null arguments of the verb in the reflective case.

Chiravate describes a case of homonymy as when "two lexical entries accidentally share the same form."[2] With this definition, there should actually be no discussion of separate lexical entries for verbs that are related but with different argument structures, since they are by no means accidental homynyms. Even if *raːħ* and *tarak* in Arabic correspond to two different senses of the English *leave*, you could not both say that there are two separate lexical entries of *leave* in English and that they are accidental homynyms. That would mean the term homonymy should instead be restricted to a word like *match*, as in (15):[3]

(15) Can you find me a match?

a. *Can you find me a tool to light a flame?*

[2]Chiravate 2002 pg. 39

[3]I don't want to go into a debate of the usage of homonymy, but even Chiravate's definition is not as clear as it could be. In the case of historically related words, such as *fair* meaning equitable and *fair* meaning beautiful, I do not think it is clear enough to say that they are two lexical entries accidentally sharing the same form. In this case there is a clear relation between them as well as there being to clear lexical entries.

b. *Can you find me a pairing?*

Relating this discussion to the Thai aspectual markers, I want to highlight two points from the current discussion. First, the goal should be to unify the understanding of different usages of a word like *yuu*$_2$ in any language. This should be the default assumption, and multiple lexical entries for a single pronunciation should only be pursued in clear cases like *match*. This is to avoid expanding the amount of entries to include multiple definitions of words like *shave* when only one is needed. Secondly, arguing for homonymy using parallels in other languages can be misleading. It would be a mistake to say that the Arabic *ra:ħ* and *tarak* are grounds for assuming different lexical entries for *leave* in English.

3.2 Usages of *yuu*

Chiravate motivates an explanation of *yuu*$_2$ as a single word by the following statement: "Crucially, the phenomenon in which a word expressing locative meaning and a word expressing progressive meaning share the same form is found in many non-related languages (i.e., Chinese, Dutch, Spanish, etc.)." The Thai examples (4a) and (5) are used to illustrate the two main usages of *yuu*$_2$, namely, the progressive marker use and the copular use.

Since Spanish is given as an example of a language that also has this structure, I will examine the following data:[4]

(16) a. John est -á ley -endo
John ESTAR 3PS read PROG
'John is reading.'

b. John est -á en la biblioteca.
John ESTAR 3PS in the library
'John is in the library.'

c. John es barbero
John SER-3PS barber
'John is a barber.'

d. *John es en la biblioteca
John SER-3PS in the library
'John is in the library.'

Here, (16) shows that in Spanish, the copula *estar* is used for both the progressive case and the location case. However, this does not seem very analogous to the Thai data. It is not clear what morpheme in these Spanish sentences is supposed to represent the same usage as *yuu*$_2$, since *estar* on its own does not clearly supply the *prog* marking. The morpheme *-endo* is also present, and if *estar* is the progressive marker, then *-endo* could just be agreement. But *estar* can be infelicitous with this morpheme.

[4]This is a departure from the original data in the Chiravate, which used the sentences *Oihana está en Oha*, 'Oihana is in Oha,' and *Oihana está estudiando*, 'Oihana is studying,', as examples, taken from Demirdache and Uribe-Extebarria (2000). I chose to use sentences closer to the Thai equivalents presented.

(17) a. John est -ab -a ley -endo
John ESTAR IMPERF 3PS read PROG
'John was reading.'

b. *John est -uv -o ley -endo
John ESTAR PRET 3PS read PROG
'John was reading.'

Additionally, though (16b) seems to also contain a progressive reading, (as does the Thai example in (4a), it is worth pointing out that in both Thai and Spanish, the location examples (5) and (16b), there is no progressive sense to these sentences. Both can be used when talking about locations of cities regardless of aspectual information.

(18) Bogotá est -á en Colombia
Bogotá ESTAR 3PS in Colombia
'Bogotá is in Colombia.'

(19) Chiangmai **yuu** tangpak nɯakong pratheet thai
Chiangmai PROG in north country Thailand
'Chiangmai is in the north of Thailand.'

Dutch is also claimed to have similar relations to Spanish and Thai between the progressive and the locative expressions. This is supported by the following data:[5]

(20) Ik ben het huis **aan** het bouwen
I am the house at the build
'I am (at the) building (of) the house.'

The Dutch data seems to more clearly pattern with the Thai data, but this is the only data provided. However it not clear how the semantics would be built up compositionally, since in the Dutch case the commonality is a preposition that is normally locative can also mark the progressive. The Thai yuu_2 is different; in the locative case it is clearly a copula followed by a preposition ($thii_3$), and heads the VP on the right, though PP's and most Thai syntax is typically right-branching.

The Chinese data[6] also seems to pattern nearly identically with the Thai data.

(21) Lisi **zai** bangongshi li
Lisi zai office inside
'Lisi is in the office.'

(22) Ta **zai** tiaowu
he zai dance
'He is dancing.'

However, there are differences between *zài* and yuu_2. Given an eventuality description, "put on leather shoes," differences can be observed.[7]

[5] Demirdache and Uribe-Etxebarria (2000)
[6] Yang (1985)
[7] Chiravate pg. 51

(23) khaw$_5$ say$_2$ roŋ$_1$thaw$_5$ naŋ$_5$ **yuu$_2$**
He put on shoe leather yuu
'He is putting on his leather shoes.'

'He has his leather shoes on.'

(24) ta **zai** chuan pi xie
He zai put on leather shoe
'He is putting on his leather shoes.'

'*He has his leather shoes on.'

Additionally, some Chinese speakers prefer to use the word *zhèng* when specifying the aspectual progressive. Consultants reported that the following sentences were more accurate:

(25) John **zài** dúshshū
John *zai* read
'John reads.'

(26) John zhèng **zài** dúshū
John currently *zai* read
'John is reading.'

(27) John **zài** túshūgǔan
John *zai* library
'John is at the library.'

Examples (23 - 27) show that the Chinese case might not be as good as an argument as initially seen. Chiravate states that these aspectual markers in the two languages might modify different types of the progressive. Both *say$_2$ roŋ$_1$thaw$_5$ naŋ$_5$* and *chuan pi xie* can mean both the action of putting shoes on or the state of having the shoes on. But while *yuu$_2$* can modify both meanings, *zài* can only modify the first.

Combined with the facts in (25 - 27), I think this means it becomes less convincing to use Chinese as a parallel in hopes of motivating the structure of *yuu$_2$* in Thai. With the Spanish and the Dutch data, there are definitely interesting parallels which can be explored, but there is also a good amount of cross-linguistic variation between these examples when the data is fleshed out more fully. I have been focusing on the *yuu$_2$* data in this section, but the next place I want to turn is the scope data of Koenig and Muansuwan.

4 Scope of Aspectual Markers

The Koenig and Muansuwan (2005) uses data from the Thai aspectual system to argue for and against previous theories of the syntax-semantics interface. These previous frameworks that they invoke are principally the work of Kayne (1994) and Cinque (1999). Koenig and Muansuwan argue for three conclusions:

a. syntactic and semantic structures are independent levels of representation that are not mapped uniformly onto each other;

b. more than one structural configuration can satisfy the selectional requirements of lexical items;

c. part-of-speech information does not entirely determine a (functional) category's combinatorial potential and both kinds of information must be recorded in the lexical entries of (functional) heads"[8]

These claims conflict with the work of Cinque and Kayne, and lead to the main claim of the paper: that the Thai aspectual system provides evidence against the previous claim that semantic modifiers of semantic structures are "isomorphic to syntactic structures that express them." [9]

4.1 Different kinds of aspectual markers in Thai

The point of interest in relation to the previous discussion of Chiravate is the fact that for the Koenig and Muansuwan, it is crucial for their analysis to draw the aspectual markers into groups, so that they can explain the syntactic properties of these markers.

Consider the following data:

(28) a. Wilaj jeb$_4$ p^{h}aa$_3$ **sed**$_2$
Wilaj sew cloth finish
'Wilaj finished sewing the cloth.'

b. *Wilaj **sed**$_2$ jeb$_4$ p^{h}aa$_3$

(29) a. Wilaj **kam**$_1$**laŋ**$_1$ **ca?**$_2$ jeb$_4$ p^{h}aa$_3$
Wilaj PROG be.about.to sew cloth
'Wilaj is going to sew the cloth.'

b. *Wilaj jeb$_4$ p^{h}aa$_3$ **kam**$_1$**laŋ**$_1$ **ca?**$_2$

c. *Wilaj jeb$_4$ p^{h}aa$_3$ **kam**$_1$**laŋ**$_1$

Koenig and Muansuwan work through all of the aspectual markers this way and draw them into two categories, which they refer to as GROUP 1 and GROUP 2 aspectual markers. The GROUP 1 aspectual markers (usually) precede the VP, and the GROUP 2 aspectual markers always follow it. Though sometimes the GROUP 1 aspectual markers can follow the verb, there is still a clear distinction between the groups because the GROUP 1 markers always scope from left to right, and the GROUP 2 markers always scope from right to left.

There is a second test that Koenig and Muansuwan use to divide the markers again, which is whether they can be negated. These negation facts separate the GROUP 2 into two groups: those which can be negated are referred to as verbs, and can also be preceded by GROUP 1 markers, whereas the ones which cannot be negated are referred to as markers, and cannot be preceded by GROUP 2 markers. The results give them the following table:

[8] Koenig and Muansuwan pg. 336.
[9] ibid.

(30)

	Verbs	Markers
GROUP 1	rəəm$_3$ 'start,' k^{h}əəj$_1$ 'experience,' kam$_1$laŋ$_1$ 'PROG,' pəŋ$_3$ 'POST-INC,' ca?$_2$ 'be about to'	
GROUP 2	cob$_2$ 'end,' sed$_2$ 'finish,' ?ɔɔk$_2$ 'SEMI-PERFV'	maa$_1$ 'PERF,' tɔɔ$_2$ 'continue,' kɯŋ$_3$ 'SEMI-PERFV,' loŋ$_1$ 'SEMI-PERFV,' yuu$_2$ 'IMPFV,' paj 'PERFV,' k^{h}aw$_3$ 'IMPFV,' sia$_5$ 'PERFV,'

Koenig and Muansuwan are interested principally in how to deal with the complicated groupings that can arise from these markers, such as in (31):

(31) Piti laaŋ$_2$ caan$_1$ **kam$_1$laŋ$_1$ ca?$_2$** **sed$_2$** **paj$_1$** ?iik$_1$ baj$_1$ nɯŋ$_2$
Piti wash dish PROG be.about.to finish PERFV more CL one
'Piti is going to finish washing one more dish.'

This is due to the scope facts of these markers, which is quite complex:

(32) PROG(BE.ABOUT.TO(PERFV(FINISH(wash(e, x, y)))))

Notice that *kam$_1$laŋ$_1$* and *ca?$_2$* scope from left to right, and *sed$_2$* and *paj$_1$* scope from right to left, and the the left-to-right markers (GROUP 1) outscope the right-to-left markers (GROUP 2). The tool Koenig and Muansuwan use to analyze this data and account for these scoping facts, and how the semantics and the syntax should line up, is MINIMAL RECURSION SEMANTICS. This is beyond the realm of the syntax or semantics of what I have studied, but from what I can understand their analysis works well.

The problem I see is with their setup. So much of their later analysis depends on the table in (30). However, this goes against Chiravate's analysis of aspectual markers. It is important for Koenig and Muansuwan that the different usages of these markers are separated out so that they can build their semantics off of the table in (30).

In that table, *yuu$_2$* is included in the GROUP 2 'markers' category (which is partially defined by these markers' infelicity with negation) and are separated out from the 'Verbs' on the left side of the table. However, as has already been shown, *yuu$_2$* can act as a verb. When it is acting as a verb, it cannot meet either of Koenig and Muansuwan's qualifications to be in its proper corner of the table. It can be negated:

(33) John mai$_3$ dai$_1$ yuu$_2$ thii$_3$ hoŋ$_3$sa$_2$mud$_2$
John not *yuu$_2$* at library
'John is not at the library.'

It can also be preceded by a GROUP 1 marker, as in the following sentence:

(34) John **kam$_1$laŋ$_1$** ?aan$_2$ naŋ$_5$sɨɨ$_5$ **yuu$_2$** thii$_3$ hoŋ$_3$sa$_2$mud$_2$
John PROG read book *yuu$_2$* at library
'John is reading at the library.'

Though, for the sake of comparison, I have been using *yuu*$_2$ as the example in all of these cases, it is not the only marker in the 'GROUP 2 markers' which can prove problematic. Take for instance *paj*$_1$ and *maa*$_1$. *Paj*$_1$ can be a verb for "go" and *maa*$_1$ can be a verb for "come," but both can act as aspectual markers as well.[10]

(35) a. John **paj**$_1$ tha$_1$naa$_1$kaan$_1$
John *paj*$_1$ bank
'John went to the bank.'

b. Su$_2$rii$_1$ ʔaan$_2$ naŋ$_5$s~~ii~~$_5$ **paj**$_1$ con$_1$ cob$_2$
Suri read book *pay*$_1$ until end
'Surii kept reading until she finished the book.'

c. John **maa**$_1$ tha$_1$naa$_1$kaan$_1$
John *maa*$_1$ bank
'John went to the bank.'

d. Su$_2$rii$_1$ tad$_2$ phom$_5$ **maa**$_1$
Surii cut hair *maa*$_1$
'Suri has just got a hair cut.'

In the cases of *paj*$_1$ and *maa*$_1$, they both have the same conflict with Koenig and Muansuwan, if and only if you consider the two forms, the verb and the aspectual marker, a unified, single, lexical entry, as Chiravate proposed. So why is it the case that Koenig and Muansuwan chose to go with the route where *paj*$_1$ and *maa*$_1$ are functioning as different words in these different contexts? Are there reasons beyond fitting their analysis better? Perhaps. Chiravate acknowledges that for the aspectual markers she discusses, all previous analyses considered there to be a verb form of *yuu*$_2$ and an aspectual marker form of *yuu*$_2$, and so on with *paj*$_1$ and *maa*$_1$ etc.

5 Conclusion

The discussion in this paper is meant to highlight both the complexity of the Thai aspectual system and the problem that arises when trying to make sense of multiple analyses side by side. Both the Chiravate and the Koenig and Muansuwan provide good arguments for their respective tasks. Nevertheless, due to the fact that Chiravate was interested in unifying the meanings of these aspectual markers whereas Koenig and Muansuwan were instead more invested in representing the system's complexity properly in the syntax-semantics interface, it is clear that the two accounts must be tweaked in order to merge them.

On the one hand, it is important to not throw away the cross-linguistic patterns that can be seen when looking at the aspectual systems of Chinese, Dutch, Spanish, and French. Chiravate successfully unifies the meanings of the aspectual markers that she deals with in her work, but that leaves a discussion to be

[10]Here Chiravate's cross-linguistic argument bears out well, as both of these aspectual markers have cousins in unrelated language. Consider the French examples *Max vient de Paris demain* 'Max will come from Paris tomorrow,' *Max vient de partir* 'Max has just left,' *Max va a Quebec* 'Max goes to Quebec,' and *Elle va courir le marathon* 'She is going to run the marathon.'

had about what then are the parameters that govern the cross-linguistic similarities and differences? The remarks about how the differences between *zài* in Chinese and *yuu*$_2$ in Thai arise is the sort of route that could be pursued to illuminate these patterns.

Likewise, though the grouping of (30) does help explain the semantics and the scope effects of the aspectual markers in light of the syntax, there is a stipulative nature to the table, and they do not examine how the semantics of these markers would hold if the words were single lexical entries. Given the fact that other previous accounts treated them as such, it makes sense that Koenig and Muansuwan made that as an assumption for their claims, but this means rejecting cross-linguistic evidence for unified definitions to these words. If an authoritative theory of the Thai aspectual system could be achieved, it would be one that can capture both the complexity of the syntactic and semantic structures of interacting aspectual markers, while simultaneously providing a clear sense of the relationships between the different usages of the words and how those usages relate to other similar cross-linguistic aspectual phenomena.

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