

Verb Classes in Thai*

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The aim of this study is to contribute to a more precise understanding of Thai verb classes, and their relationship to the characterization of verbs within the Role and Reference Grammar framework, by articulating a set of tests for distinguishing Thai verb classes. The paper presents seven tests that distinguish seven verb classes. Four of the tests proposed in Van Valin (2005) can be used for Thai with minimal adjustment. These include testing with pace adverbs, the ‘in one hour’ test, the test for result state and the causative paraphrase test. Tests for dynamicity, internal duration and occurrence with a comparative marker are adjusted or added to complete the test set. In addition to a discussion and demonstration of the tests for both non-causative and causative verbs, the paper presents data on multi-class verbs, process predicates and activity verbs which cannot occur with a dynamic element.

Key words: Thai, verb classification

1. Introduction

The classification of Thai verbs according to their temporal properties, from a Role and Reference Grammar (RRG) perspective, is not new. Rangkupan (2007) refers to verb classes in her explanation of the give-complex construction in Thai. Bisang and Kullavanijaya (2004) state that they used the verb class tests in Van Valin & LaPolla (1997) for identifying the classes of Thai verbs in their study of aspect. However, in neither of these papers are verb class tests specific to Thai articulated. Therefore, in this paper we propose a set of syntactic tests for classifying Thai verbs with reference to the syntactic tests presented in Van Valin & LaPolla (1997) and Van Valin (2005).

Central Thai, the national language of Thailand, is a member of the Tai-Kadai family of languages. It is an isolating language with almost no morphology. Overt temporal marking with verbs and number marking with nouns is optional. This allows

* We would like to thank Larin Adams, Ken Gregerson, Doug Inglis, Ken Manson, Tom Tehan and an anonymous reviewer for their comments on earlier drafts of this paper.

for a certain amount of ambiguity especially in the absence of any context. Thus, for an accurate interpretation of sentences a greater reliance on the context and pragmatic considerations is necessary.

The syntactic tests for Thai verb classes are presented and demonstrated in §2. In §3, the phenomena of multi-class verb membership, process predicates and non-dynamic activity verbs are presented. Section 4 concludes with a summary of syntactic testing for Thai verb classes and directions for further research.

2. Syntactic tests for Thai verb classes

Since morphology is limited in Thai, verbs often encode grammatical information handled by morphology in other languages. Because of this, it is important to establish that a particular form is, in fact, functioning as a main verb. Verbs can occur following the negative marker *māj* ‘NEG’ as in *māj paj* ‘not/did not go’. They can also head a verb phrase as in *maanii paj baan* ‘Maani goes/went home’. By these tests, words such as *phát* ‘blow’, *sāaŋ* ‘build’, *rabðət* ‘explode’, and *mii* ‘have’ are shown to be main verbs. In addition, descriptive words such as *sūaj* ‘beautiful’ and *rew* ‘fast’ are also identified as main verbs since they can also occur with the negative marker and can head a verb phrase. On the other hand, while *tōŋ* ‘must’ passes the negative marker test, it cannot head a verb phrase by itself. Therefore, it cannot be considered to be a main verb and is not eligible for the verb class tests that follow.

Thai verbs are organized into seven classes: adjectival states, verbal states, achievements, semelfactives, accomplishments, activities, and active accomplishments. Examples of each of these seven classes follow in Figure 1 below.

Adjectival States:	<i>jàaj</i> ‘big’, <i>pùaj</i> ‘sick’, <i>sūaj</i> ‘beautiful’, <i>dām</i> ‘black’, <i>tɕon</i> ‘poor’, <i>rew</i> ‘fast’, <i>dii</i> ‘good’
Verbal States:	<i>mii</i> ‘have’, <i>pen</i> ‘be’, <i>hěn</i> ‘see’, <i>tōŋkaan</i> ‘need’, <i>jūu</i> ‘stay’, <i>duu</i> ‘look’, <i>faŋ</i> ‘listen’
Achievements:	<i>rabðət</i> ‘explode’ (intr.), <i>taaj</i> ‘die’, <i>tèæk</i> ‘break’ (intr.), <i>phóp</i> ‘meet’
Semelfactives:	<i>khɔʔ</i> ‘knock’, <i>tɕaam</i> ‘sneeze’, <i>kraphríp</i> ‘flash, blink’, <i>ʔaj</i> ‘cough’, <i>kraphum</i> ‘flutter’
Accomplishments:	<i>sāaŋ</i> ‘build’, <i>lalaaj</i> ‘melt’ (intr.), <i>tɕom</i> ‘sink’ (intr.), <i>jáaj</i> ‘move’
Activities:	<i>sàn</i> ‘shiver’ (intr.), <i>phát</i> ‘blow’, <i>rɔŋphleeŋ</i> ‘sing’, <i>wīŋ</i> ‘run’, <i>khǎaj</i> ‘sell’, <i>khii</i> ‘ride’
Active Accomplishments:	<i>wīŋ paj sūansāathāaranáʔ</i> ‘run to the park’, <i>khīan tɕòtmǎaj</i> ‘write a letter’

Figure 1: Thai verb classes

In Thai, adjectival states are static verbs that can occur with the comparative marker *kwàa*. This class includes all the semantic types of adjectives found in English (Dixon 1977:31). A similar adjectival class, a sub-type of verbs, has also been identified in Lao, a related language (Enfield 2004). Verbal states are static verbs that do not occur with the comparative marker, although, like adjectival states, they evidence internal

duration. The two change-of-state verb classes are achievements and accomplishments. Achievements encode instantaneous changes of state while accomplishments encode gradual changes of state. Activities are dynamic verbs that have internal duration with no endpoint, while active accomplishments are motion, consumption, and creation activity predicates occurring with a delimiting element such as a destination (*to the park*) or a specific entity or quantity (*a letter, a fish*). Finally, semelfactives encode instantaneous events with no result.

Except for the comparative marker test which distinguishes adjectival and verbal states, all of these verb classes are differentiated on the basis of four conceptual properties: [\pm static], [\pm dynamic], [\pm telic], and [\pm punctual]. The properties for each verb class are listed in Table 1 below (Van Valin 2005:33).

Table 1: Verb class properties

	Static	Dynamic	Telic	Punctual
State (Adjectival and Verbal):	+	–	–	–
Activity:	–	+	–	–
Achievement:	–	–	+	+
Semelfactive:	–	+/-	–	+
Accomplishment:	–	+/-	+	–
Active Accomplishment:	–	+	+	–

The property Static distinguishes verbs that encode a condition as opposed to an event. Adjectival and verbal states are static while achievements, semelfactives, accomplishments, activities, and active accomplishments are not static.

The property Dynamic, as defined in Smith (1997) and the *dynamic/dynamics* entries in *Webster's New World Dictionary* (Guralnik 1986:436), is concerned with the degree of force, energy, or intensity of the action, similar to the different degrees of loudness or softness in music. A dynamic action occurs in stages with the continual possibility of a new infusion of energy. Thus activities, active accomplishments, some accomplishments, and some semelfactives are dynamic while states, achievements, some accomplishments, and some semelfactives are not dynamic.

The property Telic is concerned with whether a verb encodes an event with an inherent endpoint or not. Telic verb classes include achievements, accomplishments, and active accomplishments, all of which encode events with an inherent terminus. The non-telic classes, namely, states, activities, and semelfactives, encode events with no terminus.

Finally, the property Punctual differentiates non-punctual situations that have internal duration from punctual situations which do not have internal duration. Achievements and semelfactives have no internal duration and are thus punctual while states, activities,

accomplishments, and active accomplishments have internal duration and so are not punctual.

The syntactic tests for distinguishing Thai verb classes are listed in Table 2 below.¹ The asterisks in Table 2 indicate considerations that affect a test for a particular verb class. Following Table 2, the purpose of each test is discussed along with explanations of the considerations indicated by the asterisks. The application of each test is also demonstrated with these non-causative verbs: *pùaj* ‘sick’ (adjectival state), *mii* ‘have’ (verbal state), *rabðət* ‘explode’ (achievement), *khó?* ‘knock’ (semelfactive), *sāaŋ* ‘build’ (accomplishment), *phát* ‘blow’ (activity) and *wīŋ paj sūansǎathǎaraná?* ‘run to the park’ (active accomplishment).² Some verb classes have a corresponding causative class. These will be discussed and demonstrated in conjunction with Test 7, the causative paraphrase test.

Table 2: Verb class tests for Thai non-causative predicates

	Adjectival States	Verbal States	Achievements	Semelfactives	Accomplishments	Activities	Active Accomplishments
1) Occurs with the comparative marker <i>kwàa</i>	Yes	No	No	No	No	No	No
2) Occurs with a dynamic element that either increases or decreases the intensity of the action ³	No	No	No	Some	Some	Yes	Yes
3) Occurs with pace modifiers like <i>rew</i> ‘fast’, <i>təháa</i> ‘slow’	No	No	No*	No*	Yes	Yes	Yes
4) Occurs with the durative marker <i>kamləŋ</i> and/or the verb <i>jùu</i> ‘stay’	Yes	Yes	No	No*	Yes	Yes	Yes*
5) Occurs with (<i>phaaj</i>) <i>naj nùŋ təchuamooŋ</i> ‘in one hour’	No	No	No*	No*	Yes	No	Yes
6) Occurs with <i>phəŋ</i> ‘just now’ and <i>sǎam khráŋ</i> ‘three times’ with a singular subject	No	No	No	Yes	No	No	No
7) Causative paraphrase with <i>tham háj</i> ‘cause’	No	No	No	No	No	No	No

¹ Test 1, occurrence with progressive aspect, as presented in Van Valin (2005), does not work for Thai since Thai does not have a means of coding progressive aspect implying continuous action. Instead, Thai employs a durative marker and/or the verb *jùu* ‘stay’. These durative operators occur with both static and non-static verbs indicating the internal duration of the condition or event.

² All of these predicates have been put in boldface in the examples that follow.

³ Dynamic elements can take the form of a second verb, adverb, or adverb construction.

Test 1, item 1) in Table 2, serves to distinguish adjectival states from verbal states based on whether they can directly precede the comparative marker *kwàa* ‘more than’. Of the Thai verbs, only adjectival states, such as *lék* ‘small’ and *dææŋ* ‘red’, directly precede the comparative marker. This is illustrated with the adjectival state verb *pùaj* ‘sick’ in (1).

- (1) pìʔtìʔ **pùaj** kwàa mǔu
 Piti sick more than Muu
 ‘Piti is sicker than Muu.’

Examples (2)–(7) demonstrate the impossibility of direct occurrence with the comparative marker for verb classes other than adjectival states.

- (2) *tɕʰuutɕaj **mii** ŋəən kwàa mǔu
 Chujay have money more than Muu
 (3) *bâan **rabðət** kwàa
 house explode more than
 (4) *maanii **khóʔ** pratuu kwàa nɛŋ khránj
 Maanii knock door more than one time
 (5) *lék **sâaŋ** bâan kwàa mǔu
 Lek build house more than Muu
 (6) *lom **phát** kwàa mɛ̌əwaanníi
 wind blow more than yesterday
 (7) *mǔuj **wîŋ** paj sǔansǎathǎaranáʔ kwàa mǔu
 Muei run go park more than Muu

It is possible to have a comparative expression involving a non-adjectival state verb; however, it is necessary to add the form *mâak* ‘much’ preceding the comparative marker for the construction to be grammatical. This is illustrated in (8) below. Note that the same construction in (8) would be grammatical with the verbs in (2), (4), (6), and (7) above. In this construction, the comparative marker is directly modifying *mâak*, not the main verb.

- (8) mǔuj wîŋ paj sǔansǎathǎaranáʔ mâak kwàa khon ɛ̀un
 Muei run go park much more than person other
 ‘Muei runs/ran to the park more than the other person/other people.’

Test 2 serves to distinguish dynamic and non-dynamic verbs based on whether the

intensity of the action of a verb can be increased or decreased. In some cases in Thai, this is accomplished by the addition of another verb or compound as in (9) and (10). In (9), the compound *tâṇnâtâṇtaa*, preceding the head verb *khǎan*, signals an increase in intensity by adding the sense of writing a letter with undivided attention. In (10), the verb *phûṇ* includes the semantic component of flying, but with greater intensity than the head verb *bin* ‘fly’.

- (9) lék tâṇnâtâṇtaa **khǎan** tɔ̀tmǎaj
 Lek obsessed/resolved write letter
 ‘Lek writes a letter intently (LIT. writes a letter with set face and eye).’
- (10) nók **bin** phûṇ khǎn thǒṇfǎa
 bird fly thrust ascend sky
 ‘The bird shot up into the sky.’

In other cases an increase or decrease in the intensity of an action is signalled by an adverb or adverb construction following the verb (+object) as in examples (11)-(17). Adjectival states, verbal states, and achievements are not dynamic since they cannot occur with a dynamic element as shown by (11), (12), and (13). On the other hand, the semelfactive verb *khǒ?*, the activity verb *phát*, and the active accomplishment construction *wīṇ paj sǔansǎathǎaraná?* can all take dynamic marking as in (14), (16), and (17). Typically, accomplishments are not dynamic; however, the accomplishment verb *sǎaṇ* ‘build’ shows dynamic properties by taking a dynamic adverb construction as in (15).

- (11) *pǐ?ti? **pùaj** jàaṇrunrǎæṇ
 Piti sick vigorously
- (12) *tɕ^huutɕaj **mii** ṇǎən jàaṇrunrǎæṇ
 Chujay have money vigorously
- (13) *bāan **rab̀ə̀t** jàaṇrunrǎæṇ
 house explode vigorously
- (14) maanii **khǒ?** pratuu nṇṇ khráṇ bawbaw
 Maanii knock door one time gently
 ‘Maanii knocks/knocked on the door once gently.’
- (15) lék **sǎaṇ** bāan jàaṇkhamákkhamén
 Lek build house enthusiastically/vigorously
 ‘Lek builds/built the house enthusiastically.’
- (16) lom **phát** jàaṇrunrǎæṇ
 wind blow vigorously
 ‘The wind blows/blew vigorously.’

- (17) mǔej **wīŋ** paj sǔansǎathǎaraná? jàaŋkhamákkhamén
 Muei run go park enthusiastically/vigorously
 ‘Muei runs/ran with vigor to the park.’

For some speakers, the adverb construction *jàaŋrunrææŋ* ‘vigorously’, can occur with non-dynamic verbs. In this case, it functions as a degree modifier (DEG). In (18), for example, *jàaŋrunrææŋ* occurs with the adjectival state *phèt* ‘spicy’ and in (19) it occurs with the verbal state *hěndūaj* ‘agree’. Therefore, in applying this test, one must ensure that *jàaŋrunrææŋ* is not functioning as a degree modifier.

- (18) **phèt** jàaŋrunrææŋ
 spicy DEG
 ‘very spicy!’
 (19) **hěndūaj** jàaŋrunrææŋ
 agree DEG
 ‘(I) really agree!’

Finally, for some activity verbs of motion the intensity of the action cannot be increased or decreased. This phenomenon will be discussed further in §3.3 below.

The third test, occurrence with pace modifiers, which follow the verb (+object), serves to distinguish non-static verbs that have temporal duration from non-static verbs with no temporal duration. Accomplishments, activities, and active accomplishments are shown to have temporal duration by passing this test as in (24), (25), and (26). Achievements and semelfactives are shown not to have inherent duration by failing this test as in (22) and (23). Finally, since adjectival and verbal states are static verbs, their failure of this test, as demonstrated by (20) and (21), does not accurately show that these verbs have internal duration and are not punctual. The non-punctual property of adjectival and verbal states will be shown by the results of Test 4 below.

- (20) *pì?ti? **pùaj** rew/tǵháa
 Piti sick quickly/slowly
 (21) *tǵ^huutǵaj **mii** ŋəən rew/tǵháa
 Chujay have money quickly/slowly
 (22) *bāan **rabəət** rew/tǵháa
 house explode quickly/slowly
 (23) *maanii **khǿ?** pratuu rew/tǵháa nūŋ khrán
 Maanii knock door quickly/slowly one time

- (24) lék **sâaŋ** bâan rew/tçháa
 Lek build house quickly/slowly
 ‘Lek build/built a house quickly/slowly.’
- (25) lom **phát** rew/tçháa
 wind blow quickly/slowly
 ‘The wind blows/blew quickly/slowly.’
- (26) mǎŋj wŋj paj thŋj sũansăathăaraná? jàaŋrewwaj
 Muei run go reach park quickly
 ‘Muei runs/ran to the park quickly.’

In applying Test 3, the asterisk in the Achievement column of Table 2 indicates that achievements can occur with pace adverbs of very short duration as demonstrated by (27).

- (27) bâan **rabəət** thanthii
 house explode instantly/in an instant
 ‘The house exploded instantly/in an instant.’

In order to control for the occurrence with pace modifiers of shorter duration, verbs have been tested with pace modifiers encoding a longer temporal duration. Therefore, since achievements cannot occur with pace modifiers of longer duration, they are marked ‘No’ with an asterisk for Test 3.

As for semelfactives, the asterisk for Test 3 indicates that they can occur with pace modifiers with an iterative reading as in (28).

- (28) maanii **khŋ?** prátuu rew
 Maanii knock door quickly
 ‘Maanii knocked on the door quickly (repeatedly).’

However, if a time phrase is added indicating that the action occurred one time, occurrence with a pace modifier is not possible with semelfactive verbs, as in (23) above. Therefore, semelfactive verbs are tested with the temporal phrase *nŋj khráŋ* ‘one time’ and are marked ‘No’ with an asterisk for Test 3.

The fourth test, occurrence with durative operators, is another test of temporal duration.⁴ The non-punctual predicates, adjectival and verbal states, accomplishments,

⁴ The Thai durative operator test is a replacement for the suggested ‘for an hour’ test. While it is possible to use a translation *pen weelaa nŋj tçhuamooŋ* ‘be time one hour’, this construction is not particularly natural in Thai and only occurs comfortably in limited situations.

activities, and active accomplishments, all occur with the durative operator *kamlaŋ* preceding the verb as shown by (29), (30), (33), (34), and (35). The punctual verbs, achievements and semelfactives, do not have internal duration so cannot occur with a durative operator as shown by (31) and (32).

- (29) pìʔtiʔ kamlaŋ **pùaj**
 Piti DUR sick
 ‘Piti is sick (now).’
- (30) tɕʰuutɕaj kamlaŋ **mii** ɲəən
 Chujay DUR have money
 ‘Chujay has money (now).’
- (31) *bâan kamlaŋ **rəbðət**
 house DUR explode
- (32) *maanii kamlaŋ **khóʔ** pratuu nɛŋ khrán
 Maanii DUR knock door one time
- (33) lék kamlaŋ **sâaŋ** bâan
 Lek DUR build house
 ‘Lek is building a house.’
- (34) lom kamlaŋ **phát**
 wind DUR blow
 ‘The wind is blowing.’
- (35) mǝʔj kamlaŋ **wɨŋ** paj sǝansǝathǝaranáʔ
 Muei DUR run go park
 ‘Muei is running to the park.’

Thai has at least three means of indicating duration: 1) the durative marker *kamlaŋ* which precedes the head verb as in (35) above, 2) the stative verb *jùu* ‘stay’ which follows the head verb as in (37) below, or 3) a combination of both *kamlaŋ* and *jùu* as in (36). Note that some verbs show some limitations of co-occurrence with *kamlaŋ* and/or *jùu*. For example, the verb *pǝan* ‘stained’ can occur with both *kamlaŋ* and *jùu* as in (36), with *jùu* as in (37), but not *kamlaŋ* as in (38). This is due to the fact that while *kamlaŋ* and *jùu* share the property of duration, they also differ in certain respects (Boonyapatipark 1983).

- (36) sǝa kamlaŋ **pǝan** jùu
 shirt DUR stained stay
 ‘The shirt is stained.’
- (37) sǝa **pǝan** jùu
 shirt stained stay
 ‘The shirt is stained.’

- (38) *sâa kamlaŋ **pâan**
shirt DUR stained

Concerning the asterisk in the Semelfactive column in Table 2, for Test 4, semelfactives can occur with a durative operator with an iterative reading as in example (39) below. However, if a counting expression is added such as *nèŋ khráŋ* ‘one time’ it is not possible for a semelfactive verb to occur with a durative operator as in (32) above. So, for semelfactives, Test 4 is marked ‘No’ with an asterisk.

- (39) pìʔtiʔ kamlaŋ **khóʔ** pratuu
Piti DUR knocking door
‘Piti is knocking on the door (repeatedly).’

The asterisk in the Active Accomplishments column for Test 4 indicates that where active accomplishment predicates include an overt indicator of completion, co-occurrence with a durative marker is not possible as shown by (40) where the verb *thũŋ* ‘reach’ indicates the completion of the event of running and (41) where the verb *mòt* ‘completely’ indicates the completed transfer of the food through selling. These completion verbs put the emphasis on the endpoint of the event which precludes the recognition of the internal duration of the active accomplishment predicate.

- (40) *măuʔ kamlaŋ **wĩŋ** paj thũŋ sũansăathăaraná?
Muei DUR run go reach park
(41) *jút kamlaŋ **khăaj** ʔaahăan mòt
Yut DUR sell food completely

The fifth test, occurrence with the temporal phrase (*phaaj*) *naj nèŋ t̚chuamoon* ‘in(side) one hour’, which follows the verb (+object), serves to identify verbs with a terminal point. Accomplishments and active accomplishments pass this test as shown by (46) and (48). The atelic verbs, adjectival and verbal states, semelfactives and activities, fail this test as shown by (42), (43), (45), and (47). Finally, achievements, though telic, do not pass Test 5, as in (44), since they can only occur with temporal phrases of very short duration.

- (42) *pìʔtiʔ **pùaj** phaajnaj nèŋ t̚chuamoon
Piti sick inside one hour
(43) *t̚h̥uut̚caj **mii** ŋəən phaajnaj nèŋ t̚chuamoon
Chujay have money inside one hour

- (44) *bâan **rabðət** phaajnaj nùŋ t̚chuamoon
house explode inside one hour
- (45) *maanii **khɔʔ** pratuu nùŋ khráŋ phaajnaj nùŋ t̚chuamoon
Maanii knock door one time inside one hour
- (46) lék **sâaŋ** bâan phaajnaj nùŋ d̚uan⁵
Lek build house inside one month
'Lek built the house within one month.'
- (47) *lom **phát** naj nùŋ t̚chuamoon
wind blow in one hour
- (48) m̄uŋj **wiŋ** paj s̄ansăathăaraná? phaajnaj nùŋ t̚chuamoon
Muei run go park inside one hour
'Muei ran to the park in one hour.'

The asterisks in the Achievements and Semelfactives columns in Table 2, for Test 5, indicate that they can occur with temporal phrases of very short duration, but they cannot occur with temporal phrases of longer duration. Therefore they are marked 'No' with an asterisk for Test 5.

The sixth test, occurrence with *phəðəŋ* 'just now' preceding the verb and *săam khráŋ* 'three times' following the verb (+object), along with a singular subject, is designed to distinguish achievements, which have a result state, from semelfactives, which have no result state.⁶ The format of Test 6 is taken from verb class tests for Phowa, a Tibeto-Burman language of China (Pelkey 2004). It is based on the observation that achievements can have an iterative reading only with plural subjects, while

⁵ For the verb *săaŋ* it is necessary to change the time phrase to a longer duration in order for the sentence to make sense.

⁶ The suggested test to distinguish achievements and semelfactives is whether a verb can function as a stative modifier. In Thai, however, modified nouns and attributive clauses are configured in the same way, making their interpretation ambiguous. This is illustrated by (i) below, where *bâan jàj* can be interpreted as a modified noun or an attributive sentence.

- (i) bâan jàj
house big
'big house'
'The house is big'

The semelfactive verb *kraphríp* 'flash, blink' can occur in the same syntactic configuration as in (i). This is illustrated by (ii).

- (ii) tôn khrisamâat tòktəəŋ d̄uaj faj kraphríp làak s̄i
tree Christmas decorate with light flash many color
'The Christmas tree is decorated with flashing lights of many colors.'

Given the ambiguity of modified nouns and attributive clauses, the stative modifier test cannot be used to distinguish semelfactives and achievements in Thai.

semelfactives can have an iterative reading with a singular subject (Van Valin 2005:38).

Only semelfactives pass this test as in (52). Adjectival and verbal states, achievements, accomplishments, activities, and active accomplishments fail this test as demonstrated by (49), (50), (51), (53), (54), and (55).

- (49) *pìʔtiʔ phêəŋ pùaj sǎam khráŋ
Piti just now sick three time
- (50) *tɕʰuutɕaj phêəŋ mii ŋəən sǎam khráŋ
Chujay just now have money three time
- (51) *bāan phêəŋ rabðət sǎam khráŋ
house just now explode three time
- (52) maanii phêəŋ khóʔ pratuu paj sǎam khráŋ
Maanii just now knock door go three time
'Just now, Maanii knocked (on) the door three times.'
- (53) *lék phêəŋ sǎaŋ bāan lǎŋ níi sǎam khráŋ
Lek just now build house CL this three time
- (54) *lom phêəŋ phát sǎam khráŋ
wind just now blow three time
- (55) *mǝʔj phêəŋ wŋ paj sǔansǎathǎaranáʔ sǎam khráŋ
Muei just now run go park three time

When applying this test, one should be aware that, in Thai, *phêəŋ* has two meanings: 'just now' and 'only'. With an 'only' sense, it is possible for *phêəŋ* to occur with non-semelfactive verbs such as the verbal state *pen* 'be' as in (56). So, in applying Test 6, one must ensure that the meaning of *phêəŋ* is 'just now' and not 'only'.

- (56) phlɔɔj phêəŋ pen wát sǎam khráŋ
Phloy only be common cold three time
'Phloy has only had a cold three times.'

Finally, Test 7 is used for the purpose of identifying lexical causatives. In Thai, the most common means of encoding a causative event is through the use of an analytic causative construction with the verbs *tham* 'do, make' and *háj* 'give' as shown in (57).

- (57) lék tham háj maanii pùaj
Lek do give Maanii sick
'Lek made Maanii sick.'

Even so, Thai has a number of lexical causatives. These are identified through the

causative paraphrase test where a verb is considered to be causative if it can be paraphrased in a causative construction with a result state, the same number of arguments and with about the same meaning as the sentence being paraphrased. This is illustrated with the causative accomplishment *lalaaj* ‘melt’. Example (58) is the sentence with the causative verb *lalaaj* and (59) is the causative paraphrase of (58).

- (58) lék **lalaaj** námkhǎŋ
 Lek melt ice
 ‘Lek melts/melted the ice.’
- (59) lék **tham** **hâj** námkhǎŋ lalaaj
 Lek do give ice melt
 ‘Lek causes/caused the ice to melt.’

Since two arguments are required to encode a causative event, this test is not applicable to intransitive verbs.

All of the predicates used to demonstrate Tests 1-6 above, are non-causative on either the basis of their failure of the causative paraphrase test or by the fact that they are intransitive verbs with a single semantic argument. Of the seven predicates presented above, *pùaj* ‘sick’, *rabðat* ‘explode’, *phát* ‘blow’, and *wîj paj sǔansǎathǎaraná?* ‘run to the park’ are all intransitive; they therefore fail Test 7 since the causative paraphrase test cannot be applied. The predicates *mii* ‘have’, *sâaŋ* ‘build’, and *khó?* ‘knock’ are all transitive. Their failure of the causative paraphrase test is demonstrated by examples (60), (61), and (62).

- (60) *tɕʰuutɕaj tham hâj ɲəən mii
 Chujay do give money have
- (61) *lék tham hâj bâan sâaŋ
 Lek do give house build
- (62) *maanii tham hâj pratuu khó? nùŋ khráŋ
 Maanii do give door knock one time
 ‘Maanii causes/caused the door to knock one time.’

To date, Thai causative verbal states, achievements, accomplishments, activities and, one semelfactive causative have been found. A sample of these is listed in Figure 2 on the following page. Since adjectival states are intransitive properties, we would not expect there to be causative adjectival states.

Verbal States:	<i>tàak</i> ‘dry in the sun’, <i>ráksǎa</i> ‘heal’, <i>pràpprun</i> ‘improve’, <i>khùu</i> ‘scare’
Achievements:	<i>rabàat</i> ‘explode’ (tr.), <i>tàæk</i> ‘break’, <i>lót</i> ‘lower’, <i>phǎm</i> ‘increase’, <i>kháa</i> ‘kill’
Semelfactives:	<i>sàn</i> ‘shake’ (tr.) ⁷
Accomplishments:	<i>lalaaj</i> ‘melt’ (tr.), <i>tɔm</i> ‘sink’ (tr.), <i>plǎjɔm</i> ‘deflate’, <i>pít</i> ‘close’, <i>dáp</i> ‘extinguish’
Activities:	<i>plùk</i> ‘awaken’, <i>phátthana</i> ‘develop’, <i>rēey</i> ‘hurry’

Figure 2: Thai causative predicates

The application of the verb class tests will be demonstrated with the following causative verbs: *khùu* ‘scare, intimidate’ (verbal state); *kháa* ‘kill’ (achievement); *sàn* ‘shake’ (tr.) (semelfactive); *tɔm* ‘sink’ (tr.) (accomplishment); *plùk* ‘awaken’ (activity). The tests for Thai causative verbs are presented in Table 3 below. The test with the comparative marker *kwàa* is marked irrelevant (Irr.) for the causative classes since it is not necessary to distinguish adjectival and verbal state causatives.

Table 3: Thai verb class tests with causative classes

	Test 1 <i>kwàa</i>	Test 2 Dynamic	Test 3 Pace	Test 4 Durative	Test 5 Temp. PP	Test 6 <i>phǎn</i>	Test 7 Cause
Adjectival State	Yes	No	No	Yes	No	No	No
Verbal State	No	No	No	Yes	No	No	No
Achievement	No	No	No*	No	No*	No	No
Semelfactive	No	Some	No*	No*	No*	Yes	No
Accomplishment	No	Some	Yes	Yes	Yes	No	No
Activity	No	Yes	Yes	Yes	No	No	No
Active Accomplishment	No	Yes	Yes	Yes*	Yes	No	No
Causative Verbal State	Irr.	Yes	No	Yes	No	No	Yes
Causative Achievement	Irr.	Yes	No*	No	No*	No	Yes
Causative Semelfactive	Irr.	Yes	No*	No*	No*	Yes	Yes
Causative Accomplishment	Irr.	Some	Yes	Yes	Yes	No	Yes
Causative Activity	Irr.	Yes	Yes	Yes	No	No	Yes

For Test 2, unlike non-causative verbs, some members of all classes of causative predicates can occur with dynamic markers as demonstrated by the behavior of the verbal state, achievement, semelfactives, and activity causatives in examples (63)-(65), and (67). However, the causative accomplishment *tɔm* ‘sink’ is not dynamic as shown by (66). Note that with the increase in intensity of some predicates the entity affected

⁷ Note that the intransitive *sàn* ‘shake’ is identified as an activity verb in Figure 1.

must also be expanded as in (63) and (64).

- (63) pìʔtiʔ **khùu** khěn hāj maanii jók bâan hāj
 Piti scare distress give Maanii give house give
 ‘Piti intimidated Maanii into giving (her) house to him.’
- (64) lék **khâa** láanphlāan thāj mǔubāan
 Lek kill destroy entire village
 ‘Lek annihilated the entire village.’
- (65) kàj **sàn** kradiŋ rææŋ nūŋ khránŋ
 Kai shake bell energetically one time
 ‘Kai shook the bell energetically one time.’
- (66) *maanáʔ **tɕom** diŋ rɯa⁸
 Maana sink plummet boat
- (67) phlɔɔj **plùk** tɕhuutɕaj bawbaw
 Phloy awaken Chujay gently
 ‘Phloy awakens/awakened Chujay gently.’

For Test 3, occurrence with pace modifiers, the causative verb classes behave the same as the non-causative classes with the same provisos for achievement and semelfactive verbs. The verbal state, achievement, and semelfactive causatives cannot occur with pace modifiers as shown by (68), (69), and (70). Accomplishment and activity causatives can occur with a pace modifier as shown by (71) and (72).

- (68) *pìʔtiʔ **khùu** maanii rew/tɕháa
 Piti scare Maanii quickly/slowly
 ‘Piti scared Maanii quickly/slowly.’
- (69) *lék **khâa** mææw rew/tɕháa
 Lek kill cat quickly/slowly
 ‘Lek killed the cat quickly/slowly.’
- (70) *kàj **sàn** kradiŋ rew/tɕháa nūŋ khránŋ
 Kai shake bell quickly/slowly one time

⁸ The combination of *tɕom diŋ* in a transitive construction is not grammatical while *tɕom diŋ* in an intransitive construction is grammatical as in (iii).

(iii) rɯa tɕom diŋ tâj thóŋthale
 boat sink plummet under open sea
 ‘The boat plummeted to the bottom of the ocean.’

- (71) maaná? **tɕom** ræa jàaŋrúatrew
 Maana sink boat quickly
 ‘Maana sank the boat quickly.’
- (72) phlɔɔj **plùk** tɕhuutɕaj jàaŋrúatrew
 Phloy awaken Chujay quickly
 ‘Phloy awakened Chujay quickly.’

For Test 4, occurrence with durative operators, causative verbs behave as their non-causative counterparts including the considerations that affect semelfactives. Verbal states, accomplishments, and activities occur with the durative operator *kamlaŋ* as in (73), (76), and (77). Achievements and semelfactives cannot occur with *kamlaŋ* as demonstrated by (74) and (75).

- (73) pìʔti? kamlaŋ **khùu** maanii
 Piti DUR scare Maanii
 ‘Piti is scaring Maanii.’
- (74) *lék kamlaŋ **khâa** mææw
 Lek DUR kill cat
- (75) *kàj kamlaŋ **sàn** kradiŋ nùŋ khráŋ
 Kai DUR shake bell one time
- (76) maaná? kamlaŋ **tɕom** ræa
 Maana DUR sink boat
 ‘Maana is sinking the boat.’
- (77) phlɔɔj kamlaŋ **plùk** tɕhuutɕaj
 Phloy DUR awaken Chujay
 ‘Phloy is awakening Chujay.’

For Test 5, occurrence with the temporal phrase *naj nùŋ tɕhuamooŋ* ‘in one hour’, the same considerations that hold for non-causative achievements and semelfactives also hold for causative achievements and semelfactives. Verbal state, achievement, semelfactive, and activity causatives cannot occur with the temporal phrase as demonstrated by (78), (79), (80), and (82). Whereas the causative accomplishment verb *tɕom* ‘sink’ does occur with the temporal phrase as in (81).

- (78) *pìʔti? **khùu** maanii naj nùŋ tɕhuamooŋ
 Piti scare maanii in one hour
- (79) *lék **khâa** mææw naj nùŋ tɕhuamooŋ
 Lek kill cat in one hour

- (80) *kàj **sàn** kradiŋ n̄ŋ khráŋ naj n̄ŋ t̄chuamoon
 Kai shake bell one time in one hour
- (81) maaná? **t̄com** r̄ua naj n̄ŋ t̄chuamoon
 Maana sink boat in one hour
 ‘Maana sank the boat in one hour.’
- (82) *phlɔɔj **plùk** t̄chuut̄caj naj n̄ŋ t̄chuamoon
 Phloy awaken Chujay in one hour

Test 6, occurrence with *phêŋ* ‘just now’ and *săam khráŋ* ‘three times’ with a singular subject, also behaves in the same way as with non-causative verbs. Only the semelfactive causative verb *sàn* passes this test (85), while causative verbal states, achievements, accomplishments and activities fail this test as in (83), (84), (86), and (87).

- (83) *pì?ti? phêŋ **khùu** maanii s̄am khráŋ
 Piti just now scare Maanii three time
- (84) *lék phêŋ **khâa** mææw s̄am khráŋ
 Lek just now kill cat three times
- (85) kàj phêŋ **sàn** kradiŋ s̄am khráŋ
 Kai just now shake bell three time
 ‘Kai just now shook the bell three times.’
- (86) *maaná? phêŋ **t̄com** r̄ua s̄am khráŋ
 Maana just now sink boat three time
- (87) *phlɔɔj phêŋ **plùk** t̄chuut̄caj s̄am khráŋ
 Phloy just now awaken Chujay three time

Finally, for Test 7, occurrence in a causative paraphrase, all the causative verbs pass this test as shown by examples (88)-(92).

- (88) pì?ti? tham hâj maanii klua
 Piti do give maanii afraid
 ‘Piti caused Maanii to be afraid.’
- (89) lek tham hâj mææw taaj
 Lek do give cat die
 ‘Lek caused the cat to die.’
- (90) kàj tham hâj kradiŋ s̄an n̄ŋ khráŋ
 Kai do give bell shake one time
 ‘Kai caused the bell to shake one time.’

- (91) maaná? tham hâj r̥na t̥om
 Maana do give boat sink
 ‘Maana caused the boat to sink.’
- (92) phlɔɔj tham hâj t̥huutɕaj t̥un
 Phloy do give Chujay wake
 ‘Phloy caused Chujay to waken.’

3. Additional verb class phenomena

Thai exhibits a number of behaviors related to verb class membership. These phenomena are verbs with multi-class membership, process predicates and non-dynamic activity verbs.

3.1 Multi-class verbs

Thai possesses verbs that show evidence of membership in more than one verb class simultaneously. This phenomenon is illustrated with the verb *too* ‘big, become big’ which shares characteristics with both the adjectival state and accomplishment classes. This pattern is also true for the verb *h̥æŋ* ‘dry’.

The test results for *too* are summarized in Table 4 below. Note that for each test, *too* behaves as either an adjectival state or an accomplishment, but not both at the same time. So, for Test 4, occurrence with a durative operator, only an accomplishment reading is possible.

Table 4: Verb class tests for Thai multi-class verbs

	Test 1 <i>kwàa</i>	Test 2 Dynamic	Test 3 Pace	Test 4 Durative	Test 5 Temp. PP	Test 6 <i>ph̥æŋ</i>	Test 7 Cause
Adjectival State	Yes	No	No	No	No	No	No
Accomplishment	No	No	Yes	Yes	Yes	No	No

For Test 1, occurrence with the comparative marker, *too* behaves as an adjectival state as demonstrated by (93).

- (93) pìʔti? tua **too** kwàa m̥u
 Piti self big more than Muu
 ‘Piti is bigger than Muu. (*Piti became bigger than Muu.)’

For Test 2, occurrence with dynamic markers, *too* behaves in line with both

adjectival states and accomplishments by not taking any dynamic marker as shown by (94).

- (94) *pìʔtiʔ **too** jàaŋrunrææŋ
 Piti big vigorously

For Test 3, *too* behaves as an accomplishment occurring with pace modifiers as demonstrated by (95). This is not characteristic of adjectival states.

- (95) pìʔtiʔ **too** rew/tçháa
 Piti big quickly/slowly
 ‘Piti is becoming big quickly/slowly.’

too also passes Test 4, occurrence with the durative operator *kamlan*, as illustrated by (96). Note that only an accomplishment reading is possible.

- (96) pìʔtiʔ kamlan **too**
 Piti DUR big
 ‘Piti is becoming big. (*Piti is big (now).)’

With Test 5, *too* also behaves as an accomplishment verb with a pragmatically-acceptable time duration as shown by (97).

- (97) pìʔtiʔ **too** phaajnaj nùŋ pii
 Piti big inside one year
 ‘Piti became big in a year.’

Finally, *too* fails Test 6, repeated action with a singular subject, as shown by (98). It also fails Test 7, since it is an intransitive verb, making a causative paraphrase impossible.

- (98) *pìʔtiʔ phêæŋ **too** sǎam khrán
 Piti just now big three time

3.2 Process predicates

Van Valin (2005:43) provides data for verbs that “... directly express processes with no necessary implication of an endpoint and result state.” Thai evidences this

phenomenon with adjectival states in combination with the verbs *khân* ‘ascend’ and/or *loŋ* ‘descend’. Typically, an adjectival state occurs with either *khân* or *loŋ* based on pragmatic considerations, as shown by example (99), where *lian* ‘fat’ occurs felicitously with *khân* but not *loŋ*. Conversely, in example (100), *phǎm* ‘thin’ occurs felicitously with *loŋ* but not *khân*.

- (99) maanii **lian** *khân*/**loŋ*
 Maanii fat ascend/*descend
 ‘Maanii is becoming fatter.’
- (100) lek **phǎm** *loŋ*/**khân*
 Lek thin descend/*ascend
 ‘Lek is becoming thinner.’

However, there are exceptions to this pattern of co-occurrence as shown by (101) where *nǎaw* ‘cold’ can be followed by either *khân* or *loŋ*.

- (101) ʔaakàat nǎaw *khân*/*loŋ*
 weather cold ascend/descend
 ‘The weather is becoming colder.’

In relation to the verb class tests, the derived process predicate *nǎaw khân* ‘become colder’ is distinct from other verb classes. This can be seen in Table 5 where the behavior of process predicates with the verb class tests is shown in Row 2.

Table 5: Thai verb class tests including derived process predicates

	Test 1 <i>kwàa</i>	Test 2 Dynamic	Test 3 Pace	Test 4 Durative	Test 5 Temp. PP	Test 6 <i>phǎaŋ</i>	Test 7 Cause
Adjectival State	Yes	No	No	Yes	No	No	No
Process	No	No	Yes	Yes	No	No	No
Verbal State	No	No	No	Yes	No	No	No
Achievement	No	No	No*	No	No*	No	No
Semelfactive	No	Some	No*	No*	No	Yes	No
Accomplishment	No	No	Yes	Yes	Yes	No	No
Activity	No	Yes	Yes	Yes	No	No	No
Active Accomplishment	No	Yes	Yes	Yes	Yes	No	No

First, *nǎaw khân* is no longer an adjectival state predicate as shown by its failure of the comparative test in (102). It can occur with a pace modifier as in (103) which shows that it has internal duration. It can also occur with a durative marker as in (104).

However, it has no terminal point as shown by (105). Nor is it dynamic as shown by (106). Finally, *nǎaw khûn* is not repeatable with a singular subject as shown by (107) and since it is an intransitive predicate, it also fails the causative paraphrase test.

- (102) *ʔaakàat **nǎaw** **khûn** kwàa
 weather cold ascend more
- (103) ʔaakàat **nǎaw** **khûn** jàanrûatrew
 weather cold ascend quickly
 ‘The weather is cooling quickly.’
- (104) ʔaakàat kamlan **nǎaw** **khûn**
 weather DUR cold ascend
 ‘The weather is becoming colder.’
- (105) *ʔaakàat **nǎaw** **khûn** naj nùŋ t̚chuamoon
 weather cold ascend in one hour
- (106) *ʔaakàat **nǎaw** **khûn** rææŋ
 weather cold ascend strongly
- (107) *ʔaakàat phôŋ **nǎaw** **khûn** sǎam khrán
 weather just now cold ascend three time

As for the occurrence of *khûn* and *loŋ* with other verb classes, the effect is not uniform. With some verbs, *khûn* and *loŋ* function simply as directionals as in (108).

- (108) bin khûn
 fly up
 ‘to take off (of an aircraft)’

The work of other researchers suggests that *khûn* and *loŋ* not only function as directionals but as perfective markers, at least with some verbs (Thepkanjana 1986, Koenig & Muansuwan 2000). However, a more comprehensive examination of the behavior of *khûn* and *loŋ* with other verb classes is beyond the scope of this paper.

3.3 Non-dynamic activity verbs

It is not possible to combine dynamic markers with some Thai activity verbs of motion. For example, the verbs *paj* ‘go’, *maa* ‘come’, *khûn* ‘ascend’, and *loŋ* ‘descend’. Illustrating with the verb *paj* ‘go’, example (109) demonstrates the impossibility of the modification of *paj* with a dynamic marker.

- (109) *kàj paj jàaŋrææŋ
Kai go vigorously

With the remaining tests, however, *paj* behaves like other activity verbs. The test results for *paj* are summarized in Table 6 below.

Table 6: Test results for *paj*

	Test I <i>kwàa</i>	Test II Dynamic	Test III Pace	Test IV Durative	Test V Temp. PP	Test VI <i>phêəŋ</i>	Test VII Cause
<i>paj</i>	No	No	Yes	Yes	No	No	No

paj passes both Test 3, occurrence with a pace modifier, and Test 4, occurrence with a durative marker, as shown by examples (110) and (111). Both of these tests show that *paj* has internal duration.

- (110) kài **paj** rew
Kai go quickly
'Kai went quickly.'
(111) kài kamləŋ **paj**
Kai DUR go
'Kai is going.'

paj does not pass Test 1, occurrence with the comparative marker, as shown by example (112). Nor does it pass Test 5, the temporal phrase test, or Test 6, occurrence with *phêəŋ* and *săam khráŋ* with a singular subject, as shown by (113) and (114). Finally, since *paj* is an intransitive verb, the causative paraphrase test cannot be applied.

- (112) *kài **paj** kwàa lék
Kai go more than Lek
(113) *kài **paj** naj nəŋ t̚chuamoon
Kai go in one hour
(114) *kài phêəŋ **paj** sãam khráŋ
Kai just now go three time

Comparing non-dynamic activities with process predicates in §3.2 above, both types of verbs have the same test results. However, they are not the same. While it is possible for non-dynamic activities to occur with a goal argument resulting in an active accomplishment as in (115), process predicates, with their lack of a result state or

terminal point, cannot occur with a goal argument as in (116).

- (115) kài **paj** talàat
 Kai go market
 ‘Kai went to the market.’
- (116) *ʔàakàat **nǎaw** **khân** talàat
 weather cold ascend market

4. Conclusion

This paper has presented a set of seven tests for identifying and distinguishing seven verb classes in Thai. For those tests that are similar to the tests presented in Van Valin & LaPolla (1997) and Van Valin (2005), namely, the pace modifier (Test 3), temporal phrase (Test 5), iterative action with a singular subject (Test 6) and the causative paraphrase tests (Test 7), the behavior of Thai parallels that of other languages. The comparative marker test (Test 1), while not included in the RRG-suggested tests, is a common one with attributive forms. For the remaining tests, namely, the tests of dynamicity (Test 2) and internal duration (Test 4), uniquely Thai tests were required. Our most fruitful means of discovering and developing these Thai-specific tests came through a return to the conceptual basis for both the tests and the verb class categories.

However, while patterned behavior has been demonstrated for a number of Thai verbs, other Thai verbs have not been as amenable to the kind of testing presented in this paper. One major factor has been the need, by Thai speakers, for adequate, sensible context in order to make grammaticality judgements. This does not always mix well with the stripped-down nature of the verb class tests. Finally, some verbs have been difficult to categorize for reasons yet to be discovered. This is especially true for the dynamicity and lexical causative tests.

Thus, areas for further research are abundant, including further investigation of dynamicity in Thai and how it is coded, a more in-depth investigation of Thai lexical causatives, a study of the similarities and differences in the co-occurrence patterns of the durative markers *kamlan* and/or *jùu* ‘stay’, the class membership of the many Thai compounds, the behavior of *khân* ‘ascend’ and *lon* ‘descend’ with different verb classes, and finally the behavior of verbs in combination with different types of arguments.

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[Received 31 December 2005; revised 30 June 2006; accepted 1 August 2006]

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泰語之動詞分類

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本文以角色指稱語法透過七個不同的測試來區分及描述泰語的動詞分類，使得我們能夠對該語言的動詞分類獲得更深入的了解。七種測試中有四種測試（包括「進度副詞」、「『一小時內』副詞詞組」、「結果狀態」、「使役詮釋」）來自Van Valin (2005)，我們另外提出三種測試，包括「動態性」、「內部持續性」及「比較標記之共同出現」使得測試更為完全。我們的討論涵蓋使役動詞及非使役動詞。在這個架構上我們也探討了無法與動態成分一起出現的跨分類動詞、過程動詞以及活動動詞。

關鍵詞：泰語，動詞分類